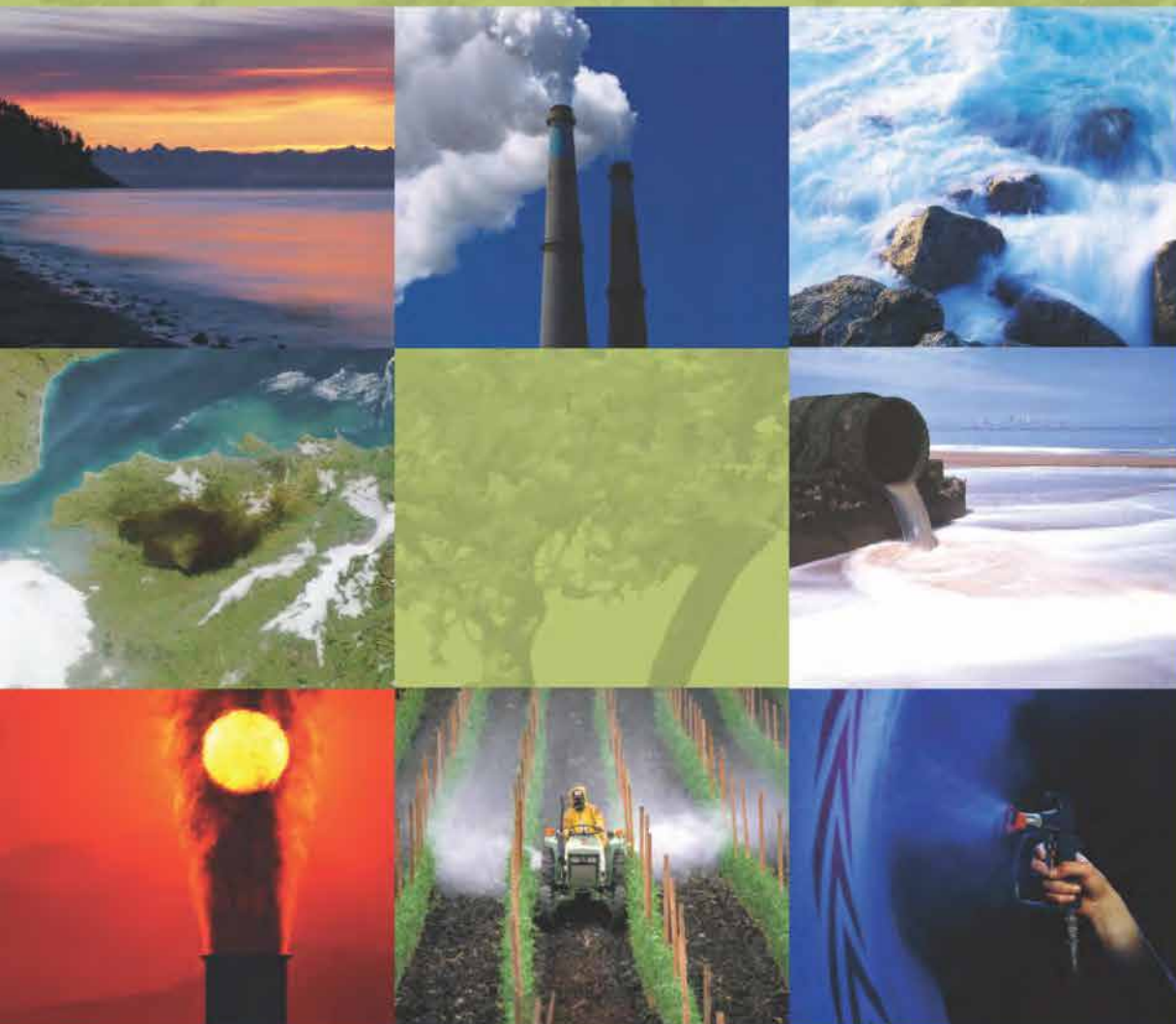




CIL

Cambridge Isotope Laboratories, Inc.

# Environmental Contaminant Standards



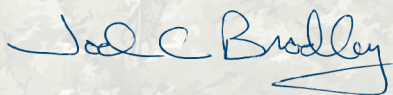
*Solutions for a Greener World*

August 2010 marks the beginning of CIL's 30<sup>th</sup> year in business. Over the past 30 years CIL has been a partner and responsive supporter of the **world's leading ultra-trace analytical laboratories**. From Europe to North America to Asia, whenever a major environmental contamination problem has occurred, CIL has been ready to help with the analytical standards critical to the task of defining and resolving the problem.

From the earliest days of **Dioxin** releases in Seveso, Italy; Times Beach, Missouri; Love Canal; and Binghamton, New York, to the recent **Melamine** contaminations in China, CIL people and products have been available to help and make possible detailed, accurate analysis of each problem.

CIL and our partners at **Cerilliant Corporation** developed the first fully <sup>13</sup>C-Labeled set of all 17 Toxic PCDD and PCDF Isomers. Following that important milestone, CIL organized the first International Round Robin Study in 1987 to produce consensus values for all 17 isomers. Through the years, CIL has pioneered the development of isotope-labeled standards for a wide variety of the most important environmental contaminants, including PCBs, PAHs, Chlorinated Cyclodiene Pesticides and recently, COREXIT® 9500, the dispersant widely used in the Gulf of Mexico oil release.

CIL continues to be the **world leader** in production and distribution of isotope labeled and unlabeled standards for trace analysis. We look forward to continuing our tradition of strong support and service to the world's analytical community for many years to come.



Joel C. Bradley, Ph.D.  
Chief Executive Officer



COREXIT is a trademark of Nalco Energy Services.

Cambridge Isotope Laboratories  
Andover, MA 01810  
978.749.8000

Trimethoprim  
(<sup>13</sup>C, 99%)  
50 USGM in Methanol  
09-14-2009, 11:41:21

## General Information

Our New Catalog .....	V
An Introduction to CIL .....	VI
Ordering and Contact Information .....	VIII
International Distributor Listing .....	X
CIL Grant Program, Sponsorships and Memberships .....	XI
CIL Facilities .....	XII
CIL Group .....	XIII
Product Information .....	XIV
Packaging Information .....	XVII

## Dioxin and Furan Individual Standards 1

Introduction .....	2
<sup>13</sup> C <sub>12</sub> Labeled Chlorodioxin Standards .....	3
<sup>13</sup> C <sub>6</sub> and <sup>37</sup> Cl <sub>4</sub> Labeled Chlorodioxin Standards .....	4
Unlabeled Chlorodioxin Standards .....	4
<sup>13</sup> C <sub>12</sub> Labeled Chlorofuran Standards .....	6
Unlabeled Chlorofuran Standards .....	8
Unlabeled Chlorofuran Standards for Elution Profiling .....	10
Unlabeled Chlorodioxin Standards for Elution Profiling .....	11
<sup>13</sup> C <sub>12</sub> Labeled Bromodioxin Standards .....	12
Unlabeled Bromodioxin Standards .....	12
<sup>13</sup> C <sub>12</sub> Labeled Bromofuran Standards .....	13
Unlabeled Bromofuran Standards .....	14
<sup>13</sup> C <sub>12</sub> Labeled Mixed Bromo/Chlorodioxin Standards .....	15
Unlabeled Mixed Bromo/Chlorodioxin Standards .....	15
Unlabeled Mixed Bromo/Chlorofuran Standards .....	15

## Dioxin and Furan Method Standards, Standard Mixtures and Reference Materials 17

Introduction .....	18
U.S. EPA Method 1613 Standard Mixtures .....	19
U.S. EPA Method 23 Standard Mixtures .....	22
U.S. EPA Method 8290 Standard Mixtures .....	24
U.S. EPA Method 8280 Standard Mixtures .....	26
JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures .....	29
European Air Method EN-1948 Standard Mixtures .....	32
Performance Evaluation Reference Materials .....	34
Dioxin and Furan plus PCB Standard Mixtures .....	36
Non-2,3,7,8-Containing Standard Mixtures .....	41
Two Column Dioxin and Furan Standard Mixtures .....	46
Mono-Tri Dioxin and Furan Standard Mixtures .....	50
Isotope Labeled Dioxin and Furan Standard Mixtures .....	51
Unlabeled Dioxin and Furan Standard Mixtures .....	55
Chlorodioxin and Chlorofuran Window Defining Mixtures .....	56
TCDD and TCDF Column Performance Mixtures .....	57
Bromodioxin/Furan Standard Mixtures .....	58

## PCB Standards and Standard Mixtures 65

Introduction .....	66
Isotope Labeled Individual PCB Standards .....	67
Unlabeled "Certified" Individual PCB Standards .....	70
Unlabeled PCB Standards .....	71

U.S. EPA Method 1668A/B Standard Mixtures .....	72
CEN Method EN-1948-4 WHO PCB Standard Mixtures .....	76
CEN Method EN-1948-4 Marker PCB Standard Mixtures .....	78
JIS PCB Methods Standard Mixtures .....	79
WHO "Dioxin-Like" PCB Mixtures .....	85
Dioxin-Like PCB RH12 Standard Mixtures .....	92
WHO "Non-Dioxin-Like" Marker PCB Standard Mixtures .....	94
Rapid PCB Screening Standard Mixtures .....	95
Mono-Deca plus Predominant PCB Standard Mixtures .....	96
Toxic and Predominant PCB Standard Mixtures .....	98
CDC PCB Standard Mixtures .....	100
Isotope Labeled PCB Standard Mixtures .....	102
Unlabeled PCB Standard Mixtures .....	105
PCB Window Defining Mixture .....	111
Isotope Labeled Mixed Bromo/Chloro Biphenyl Standards .....	112
Unlabeled Mixed Bromo/Chloro Biphenyl Standards .....	112
Mixed Bromo/Chloro Biphenyl Standard Mixtures .....	113
Unlabeled Methyl Sulfone PCB Standards .....	114
PCB Metabolite Standards .....	114
<b>Brominated Flame Retardant Standards &amp; Standard Mixtures .....</b>	<b>115</b>
Introduction .....	116
Isotope Labeled Individual Brominated Diphenyl Ether (BDE) Standards .....	117
Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards .....	119
Isotope Labeled Individual Polybrominated Biphenyl (PBB) Standards .....	122
Unlabeled Individual Polybrominated Biphenyl (PBB) Standards .....	122
Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards .....	122
BDE Metabolite Standards .....	123
Tetrabromobisphenol A (TBBPA) and Hexabromocyclododecane (HBCD) Standards .....	123
Other Flame-Retardant Standards .....	123
BDE Technical Mixtures .....	123
U.S. EPA Method 1614 Standard Mixtures .....	124
RoHS BDE Standard Mixtures .....	126
Brominated Diphenyl Ether (BDE) Standard Mixtures .....	130
Brominated Flame Retardant (BFR) Standard Mixtures .....	134
<b>Polycyclic Aromatic Hydrocarbon (PAH) Standards and Standard Mixtures .....</b>	<b>137</b>
Introduction .....	138
<sup>13</sup> C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards .....	139
Deuterium Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards .....	141
Unlabeled Polycyclic Aromatic Hydrocarbon (PAH) Standards .....	143
Isotope Labeled PAH Standard Mixtures .....	144
Isotope Labeled Polychlorinated Naphthalene (PCN) Standards .....	146
Unlabeled Polychlorinated Naphthalene (PCN) Standards .....	146
Polychlorinated Naphthalene (PCN) Standard Mixtures .....	147
Halowax Technical Mixtures .....	147
Substituted Benzothiophenes .....	147



<b>Priority Pollutant Standard Mixtures</b> .....	<b>149</b>
Introduction .....	150
Chlorobenzene and Chlorophenol Standard Mixtures .....	151
U.S. EPA Method 1653A Standard Mixtures .....	152
U.S. EPA Method 1653 Standard Mixtures .....	153
U.S. EPA CLP DMC Standard Mixtures .....	154
U.S. EPA Methods 1624/1625 Standard Mixtures .....	156

**Priority Pollutant, Endocrine Disruptor and Chemical Contaminant Standards** ..... **161**

Introduction .....	162
Personal Care Product Standards .....	163
Sex and Steroidal Hormone Standards .....	164
Prescription and Non-Prescription Drug Standards .....	166
Veterinary and Human Antibiotic Standards .....	167
Food and Drinking Water Analysis Standards .....	168
Phthalate and Phthalate Metabolite Standards .....	170
Nonylphenol, Nonylphenol Ethoxylate and Nonylphenol Carboxylate Standards .....	172
Perfluorinated Compound Standards .....	173
Nitrosamine Standards .....	174
Tobacco Metabolite and Flavoring Standards .....	174
Halogenated and Substituted Benzene and Phenol Standards .....	175
Endocrine Disrupting Compounds and Xenoestrogen Standards .....	176
Chlorinated Diphenyl Ether Standards .....	179
Other Industrial Chemical Standards .....	179
Explosives Standards .....	180
Individual <i>n</i> -Alkane Standards .....	181
Priority Pollutant Standards .....	182

**Pesticide and Chemical Weapon Standards** ..... **193**

Introduction .....	194
Chlorinated Cyclodiene Pesticide Standards .....	195
Organochlorine (OC) Pesticide and Metabolite Standards .....	196
Organophosphate (OP) Pesticide and Metabolite Standards .....	198
Carbamate Pesticide and Metabolite Standards .....	200
Pyrethroid Pesticide and Metabolite Standards .....	200
Triazine Herbicide and Metabolite Standards .....	201
Toxaphene Standards .....	201
Individual Pesticide and Pesticide Metabolite Standards .....	202
Pesticide Standard Mixtures .....	208
Toxaphene Standard Mixtures .....	211
Pesticide Standard Mixtures .....	212
Chemical Weapon Metabolite Standards .....	220

## Our New Catalog

It is with great pride that we present our new Environmental Contaminant Standards catalog. Its format, organization, and content were developed with our customers' needs in mind. This catalog details the growing variety of products available from CIL, including:

- **New Dioxin, PCB, and BDE Cocktails**
- **New Matrix PE Reference Materials**
- **New High Purity PCB Standards**
- **New Pharmaceutical and Personal Care Product Standards**
- **New Food and Drinking Water Contaminant Standards**
- **New Perfluorinated Compound Standards**
- **New Phthalate and Phthalate Metabolite Standards**
- **New Steroid and Hormone Standards**
- **New Pesticides and Pesticide Metabolite Standards and Cocktails**
- **New Toxaphene Standards and Cocktails**
- **New POPs Pesticides Cocktails**
- **New "Esoteric" Unlabeled Standards**

Through our collaborations with environmental testing laboratories, regulatory agencies, and research institutions around the world, we have developed numerous new products to assist testing applications. In this catalog you will find more than 2,900 products, representing an increase of approximately 1,200 items since our last printing.

As new technology and methodologies advance, CIL maintains a leadership role in developing new standards and standard mixtures to keep pace with, and even to allow for, these new procedures. In this catalog, therefore, you will find many new products developed in various solvents for use in not only new GC/MS applications, but also LC/MS methods that are rapidly becoming an integral part of the environmental testing laboratory. Also, as new policies and restrictions on certain chemicals come into force, CIL has developed new standard mixtures to increase the efficiency of laboratories' prep operations. Our longstanding collaboration with Cerilliant Corporation reinforces our commitment to quality, including new products manufactured under ISO Guide 34 and ISO/IEC 17025. New to this catalog, we have added a Part Number index in addition to the Name index in order to increase searching functionality.

CIL is honored to be a trusted partner to the analytical community. For over 30 years we've enjoyed a close working relationship with our valued customers, and it is through our numerous collaborations that we continue to develop new and exciting products to assist the cutting edge research around the world. As we continue to look for new ways to exceed your expectations, we hope our new catalog is a valuable resource for you.

**Thank you for your continued support.**



Terry Grim  
Environmental Sales  
and Product Manager



Ben Priest  
Environmental Account  
Manager



Jay Grazio  
Environmental Account  
Coordinator

### An Introduction to CIL

Cambridge Isotope Laboratories is the world leader in the manufacture and separation of stable isotopes and stable isotope labeled compounds. Our area of expertise is the labeling of biochemical and organic compounds with highly enriched isotopes of carbon, hydrogen, nitrogen and oxygen. CIL is committed to providing the highest quality products coupled with unsurpassed service to researchers worldwide. With more than 10,000 products in our combined Research Products and Environmental Contaminant Standards inventory, we proudly offer the world's largest range of stable isotope labeled compounds. Our unmatched selection of products has contributed to advancements in environmental analysis, chemistry, biochemistry, physics, biomedical and diagnostic research.

In addition to the Environmental Contaminant Standards featured in this catalog, CIL offers a large and diverse array of isotope-labeled Research Products for applications such as BioNMR, Proteomics, Mass Spectrometry, MRS, NMR, and many others. Please visit CIL's website at [www.isotope.com](http://www.isotope.com) to explore the products available from CIL.

CIL has pioneered the development of novel isotope labeled standards for the environmental testing community and we remain committed to this position. Our continuous collaboration of nearly 30 years with Cerrilliant allows us to focus our efforts on the long term expansion of CIL/Cerrilliant products and to continue to improve the quality, versatility and responsiveness of our product offering. For three decades, CIL has produced stable isotope labeled standards for the analysis of environmental contaminants using Isotope Dilution Mass Spectrometry (IDMS). The scope of the field has broadened from a small number of highly specialized analyses requiring complex instrumentation to a widely expanding range of applications. IDMS has become more routinely applied to low-resolution Mass Spectrometry (MS) analyses of common pollutants, while detection limits using High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/HRMS) continue to be extended to lower and lower concentrations, while at the same time expanding dynamic range. LC/MS, while still an esoteric method in environmental laboratories when our last catalog was published, has become a driving force in CIL's new product development. Many emerging pollutants can only be analyzed by LC/MS, and the use of isotopically labeled internal standards is an invaluable tool to correct for matrix effects, a common problem when using LC/MS in environmental samples.

#### COMMITMENT

Our unyielding commitment to drive the expansion of market applications of stable isotopes with innovative product development has enabled CIL to maintain its status as the world leader in our field. CIL takes great pride and responsibility in its role as the preferred supplier of stable isotopes to leading analytical, academic, pharmaceutical, government and industrial researchers around the world. Our goal is to develop and manufacture stable isotope labeled compounds for a wide range of analytical, scientific, and biomedical applications. This goal is most evident in the steady introduction of new CIL environmental contaminant standards produced in direct response to customer requests and new analytical methodology. In anticipation of the environmental analytical community's needs, CIL consistently develops products to assist researchers in primary investigations of new environmental issues. Our recent collaborations with researchers worldwide led to development of isotopically labeled standards used for rapid response to food and environmental emergencies such as Melamine in infant formula, and dispersants in the Gulf Oil Release.

#### KNOWLEDGE

CIL's core business is the separation and manufacture of stable isotopes and stable isotope labeled compounds. Since 1981, CIL has worked closely with leading scientific groups in the fields of environmental trace analysis as well as metabolism research, molecular biology, protein structure analysis, organic synthesis, clinical and diagnostic research to provide researchers with the products needed to solve complex challenges. Our staff of synthetic and analytical chemists is dedicated to our Environmental Contaminant Standards product line and is expert in the field with numerous years of experience in the synthesis, formulation and analysis of stable isotope labeled compounds.

#### QUALITY

Since the beginning of our collaboration in the early 1980s, CIL and Cerrilliant have dedicated our programs to providing the highest quality environmental standards available anywhere in the world. Each standard provided by CIL and Cerrilliant passes the most extensive series of tests, checks, and analyses designed to guarantee chemical and isomeric purity, identity, isotope enrichment and absolute concentration. A complete certificate of analysis accompanies every standard produced. Unlabeled "Certified Standards", developed by CIL to meet the strict requirements of our isotope-labeled standards QC validation, are a fast-growing component of our product line, and considered essential by the most demanding laboratories in the world.

Cerrilliant's quality system is rigorous, thorough, and incorporates constant improvement. Originally certified in 1997 by BSI to the ISO 9001 standard, Cerrilliant has maintained their certification through the years and recently acquired the ISO 9001:2008 standard. In November 2009, Cerrilliant received further accreditation under ISO Guide 34 for Reference Material Producers, as well as ISO/IEC 17025 accreditation for Testing and Calibration Laboratories.

**SERVICE**

CIL works with leading groups from many countries to help develop new solutions to challenging analytical problems in environmental chemistry. For customers with questions about appropriate products, or developing new methodologies, our technical sales and service experts will be glad to help you put isotope dilution methods “on-line” in your laboratory.

CIL has re-launched our newsletter called “The Standard” in digital format. This electronic newsletter is dedicated to environmental analysis using IDMS, and presents new application announcements, new product updates and articles related to environmental analytical chemistry. We routinely solicit relevant contributions from researchers and analysts, in an effort to share their experiences with the IDMS analytical community, and unsolicited articles are welcome for consideration.

While our catalog is extensive, new products are regularly added to our inventory, often on a weekly basis. If you are interested in a custom formulation, please ask us. If you don't find what you need, we will suggest an in-stock alternative, or quote a price for custom formulation. CIL strives to offer only the highest level of service to our customers. Please feel free to contact us with any special requirements you may have.

**LEADERSHIP**

CIL has worked with the US EPA, the Centers for Disease Control (CDC), Environment Canada, United Nations Environment Program (UNEP), Japanese Industrial Standard (JIS), Bromine Science and Environmental Forum (BSEF), Netherlands Institute for Fisheries Research (RIVO), and many other international environmental agencies to develop the standards needed for ongoing analytical methods development. Several examples of these collaborations include US EPA Methods 1613, 8280, 23, 1653A, 1624/25, 1614, and 1668A, CEN Methods EN-1948 and EN-1948-4, and JIS Methods K0311 and K0312.

**CIL has consistently made available, often for the first time anywhere, novel isotope labeled standards for the environmental testing community. CIL and Cerilliant were the first to:**

- Produce <sup>13</sup>C Standards for all 17 Toxic PCDD and PCDF Isomers
- Conduct a round-robin study to produce consensus values for all 17 Toxic PCDD and PCDF Isomers (1987)
- Offer PCDD/PCDF PE Standards for Soil and Fish
- Develop <sup>13</sup>C PCB Standards
- Produce unlabeled “Certified Standards” for PCBs
- Produce <sup>13</sup>C PAH Standards
- Produce <sup>13</sup>C Polybrominated Dioxins and Furans
- Produce <sup>13</sup>C Polybrominated Diphenyl Ether Standards
- Produce <sup>13</sup>C Chlorinated Cyclodiene Pesticides
- Produce Chemical Weapons Verification Standards
- Produce isotopically labeled PAH, PCB, and BDE Metabolites
- Produce isotopically labeled Plasticizer Metabolites
- Produce isotopically labeled Surfactants
- Produce isotopically labeled Standards for all compounds in the Stockholm Convention POPs list

**OFFER ISOTOPE LABELED:**

- Melamine and Cyanuric Acid Standards
- Pesticides and Pesticide Metabolites
- Pharmaceutical and Personal Care Products
- <sup>13</sup>C<sub>6</sub>-Labeled Steroids
- Endocrine Disruptors
- Alkyl Phenols and Ethoxylates
- Chlorophenolics

**OFFER CERTIFIED STANDARDS FOR USE WITH:**

- US EPA Method 1613, 8280, 23, and 8290
- US EPA Method 1668 and 1668 Revision A
- US EPA Method 1614
- US EPA Method 1624 and US EPA Method 1653
- US EPA draft Methods 1694, 1698, and 1699
- EN-1948 and EN-1948-4
- JIS Methods K0311 and K0312, and the “Simplified Assay of Trace PCBs in Dielectric Oil”
- CARB Method 429



### Ordering and Contact Information

#### PLACING AN ORDER

Phone: 1-800-322-1174 (North America) or 1-978-749-8000 (International).

Office hours are 8:00 a.m. to 5:30 p.m. Eastern Standard Time (EST)

Fax: 1-978-749-2768

Email: [envsales@isotope.com](mailto:envsales@isotope.com) (North America)

[intlsales@isotope.com](mailto:intlsales@isotope.com) (International)

E-commerce: Visit [www.isotope.com](http://www.isotope.com), our interactive site offering "shopping cart" functionality for researchers and purchasing agents who find it more convenient to place orders, request a quote or submit technical questions online.

CIL products are constantly updated on the website so be sure to visit [www.isotope.com](http://www.isotope.com) for current information.

Please help us to expedite shipment of your order by including the following information:

- Shipping address, including street
- Billing address
- Purchase order number or credit card information
- CIL catalog number and product name
- Quantity: # of ampoules, mg (milligrams), g (grams), kg (kilograms), L (liters), etc., as applicable
- Catalog price or CIL quotation number with date given
- Special instructions for packaging or shipping
- Your name, phone number, and email address
- End user name, phone number, and email address
- Preferred mode of shipping (e.g.: Federal Express or UPS)
- \$50 minimum order

We do not require written confirmation of phone orders for established customers.

#### FIRST TIME ORDERS

If ordering for the first time from within the United States, please email or fax the following company information to establish a line of credit:

- A Federal Tax Identification Number
- Dun & Bradstreet number
- Three credit/banking references

Also include your shipping address, billing address, phone, fax, email and URL address.

*International customers should provide the same information and details as above to set up an account.*

*To expedite deliveries of your first order, prepayment should be made by credit card or wire transfer in U.S. funds.*

#### PRICING INFORMATION AND TERMS OF SALE

##### NORTH AMERICAN ORDERS

- All prices are in U.S. dollars. Please consult our Customer Service Department for pricing information or packaging options.
- When stock is available and subdivision is possible, we will accept orders for smaller than catalog amounts. If you require larger than catalog quantities, please request a quotation to receive an appropriate quantity discount.
- Please note that prices are subject to change without notice. Occasionally the inventory of some products listed may become depleted. Replacement of stock may be subject to a minimum order quantity.
- You may check stock and confirm prices by contacting CIL Customer Service Department at 1-800-322-1174 (North America only) or [envsales@isotope.com](mailto:envsales@isotope.com); or 1-978-749-8000 (International) or [intlsales@isotope.com](mailto:intlsales@isotope.com).
- CIL will be pleased to assist customers with firm written quotations. Most quotes are valid for 90 days. Longer terms may be granted by CIL upon request.
- Net 30 days from invoice date with prior credit approval. Past due invoices will be subject to a 1.5% per month service charge; 18% per annum. We reserve the right to request payment in advance or COD terms on initial orders with CIL.
- We also accept VISA, MasterCard, American Express and University Purchasing Card orders.
- Shipping terms are ex-works Andover, MA, USA. Any damage to the package or product in transit is the buyer's responsibility to adjust with the carrier.
- Domestic shipping charges will be added to invoices (unless collect shipment is requested).

## Ordering Information

### INTERNATIONAL ORDERS

- CIL has an extensive international sales network of over 33 representatives in 26 different countries.
- Our representatives and agents are available to assist you with your requirements for our products. Please consult your local CIL representative for appropriate pricing and payment terms. Shipping charges and any applicable import duties and taxes will be added to orders placed with distributors.
- For direct orders, CIL generally requires prepayment in U.S. dollars by international bank check or bank wire transfer. We will be pleased to provide proforma invoices upon request. Shipping charges will be added to direct orders. Any applicable import duties and taxes will be charged to the purchaser by the shipping company or customs agent.
- Shipping terms are ex-works, Andover, MA, USA. Any damage to the package or product in transit is the buyer's responsibility to adjust with the carrier.

### HAZARDOUS HANDLING CHARGES FOR NORTH AMERICA

There is a \$50 Hazardous Material Handling Charge added to each order for Polychlorinated dibenzo-*p*-dioxins (PCDDs), dibenzofurans (PCDFs) and biphenyls (PCBs). Only one fee will be charged per shipment.

### SHIPPING INFORMATION

#### USA

- Shipments within the United States will be sent via UPS, Federal Express, or truck.
- Orders within the United States for in-stock items placed before 2 p.m. EST can ship the same day via Federal Express, or on the next working day by UPS.
- Polychlorinated dibenzo-*p*-dioxins (PCDDs), dibenzofurans (PCDFs) and biphenyls (PCBs) will be shipped via Federal Express only, but can ship next day, 2<sup>nd</sup> day, or 3<sup>rd</sup> day delivery.

#### CANADA

- Please include the name of your customs broker.
- Canadian shipments will be sent via Federal Express or truck.
- Orders to Canada for in-stock items will ship one to two working days after receipt of purchase order.
- Polychlorinated dibenzo-*p*-dioxins (PCDDs), dibenzofurans (PCDFs) and biphenyls (PCBs) will be shipped via Federal Express only. Other items will ship by appropriate carrier.

### INTERNATIONAL

- International shipments of non-hazardous materials will be sent via Federal Express or best method.
- Hazardous materials will be shipped by air freight, surface vessel or Federal Express where applicable. CIL tries to be as cost-effective as possible, but the carrier may assess additional charges. Carriers will add additional charges for the transportation and handling of any hazardous materials where applicable.
- Hazardous substances are identified with the appropriate UN number and transported in compliance with IATA regulations.
- Some CIL materials may require special labeling and handling in accordance with DOT, IATA, and ITAR regulations.
- Orders to international destinations will be shipped by airfreight, surface vessel or Federal Express where applicable.

It may not be possible to consolidate some hazardous materials with other products. Hazardous materials will be shipped separately from non-hazardous materials by airfreight, surface vessel or Federal Express where applicable. CIL tries to be as cost effective as possible, but the carrier may assess additional charges.

We will oblige your shipping instructions whenever it is feasible to do so. CIL reserves the right to change the method of transportation, if required, to comply with transportation regulations. Such a change would not alter your responsibility for payment of shipping charges. Additional shipping charges may apply.

# International Distributor Listing

## AUSTRALIA

Novachem Pty. Ltd.  
100 Dight Street  
Collingwood VIC 3066  
Tel: (61) 3-8415-1255  
Fax: (61) 3-8415-1366  
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www.novachem.com.au

## AUSTRIA

LGC Standards GmbH  
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Germany  
Tel: (49) 281-9887-0 (Switchboard)  
Tel: (49) 281-9887-250 (Orders)  
Fax: (49) 281-9887-199  
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www.lgcpromochem.com

## BELGIUM

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F-67123 Molsheim Cedex  
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Fax (33) 3-88-04-82-90  
E-mail: fr@lgcstandards.com  
www.lgcstandards.com

## BRAZIL

Tedia Brazil Products Para Labor Ltda  
Rua Souza Barros 567-A, Engº Novo  
Rio de Janeiro, RJ  
CEP 20961-150  
Tel: (55) 21-2196-9000  
Fax: (55) 21-2196-9050  
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www.tediabrazil.com.br

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www.biolab.com.cn  
(additional offices in Shanghai,  
Guangzhou, Wuhan and Cheng Du)

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www.spectragases.com.cn

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www.lgcpromochem.com

## FRANCE

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## ISRAEL

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2 Faran Street  
(mailing address: Box 13157)  
Yavne 81225  
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Japan Only: 088-665-1721  
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## Wako Pure Chemical Industries

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Fax: (81) 66-201-5964  
E-mail: labchem-tec@wako-chem.co.jp  
www.wako-chem.co.jp

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Kyonggi-Do, 437-820  
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## SWITZERLAND

CIL Switzerland office is closed.  
Mrs. Ingrid Schneider has retired.  
Please now contact:

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Tel: (49) 281-9887-250 (Orders)  
Fax: (49) 281-9887-199  
E-mail: de@lgcpromochem.com  
www.lgcpromochem.com

## (Forensic Standards)

ReseaChem GmbH  
Pestalozzistrasse 16  
3400 Burgdorf  
Tel: (41) 34 424 03 10  
Fax: (41) 34 424 03 12  
E-mail: cil@reseachem.ch  
www.reseachem.ch

## TAIWAN

Long Chain International Corp.  
3F, 64 T'A Cheng Street  
Taipei 103  
Tel: (886) 2-2552-2605  
Toll Free: 0800-221-015  
Fax: (886) 2-2552-1269  
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## UNITED KINGDOM

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**THE CIL GRANT PROGRAM**

CIL has always been a strong supporter of new research and new applications for stable isotopes. In the early 1990s, CIL created a privately funded grant program providing grants of stable isotope labeled compounds to assist the research and analytical community. Through our research grant program, we have provided stable isotope labeled compounds to hundreds of research groups worldwide. This program provides researchers with grants of labeled compounds for the development of new applications of stable isotopes, new method development for stable isotope detection or quantification, and methods development of novel synthetic organic routes.

We look forward to ongoing collaborations with leading research groups in the stable isotope field. For more information about the CIL grant program or to submit a proposal, please contact our Technical Services department through [envsales@isotope.com](mailto:envsales@isotope.com).

**CIL SPONSORSHIPS**

In support of the scientific community, CIL sponsors over 150 worldwide conferences and technical symposia each year. CIL is proud to be both a participant in and a sponsor of these conferences which provide a forum for researchers all over the world to unite in the interest of advancing their work. CIL has been a major sponsor of the International Symposium on Halogenated Persistent Organic Pollutants (aka "DIOXIN") for 23 years, and has generously supported many other meetings, including:

ASMS	American Society for Mass Spectrometry
ASNS	American Society for Nutrition Symposium
BFR	Brominated Flame Retardant Workshop
CSC	Canadian Society For Chemistry
Dioxin	International Symposium on Halogenated Persistent Organic Pollutants
Enviro	EnviroAnalysis
EANM	European Association of Nuclear Medicine
GRC	Gordon Research Conference
KS	Keystone Symposia – Frontiers of NMR in Biology
ICMRBS	International Conference on Magnetic Resonance in Biological Systems
ISMAR	International Society of Magnetic Resonance – ISMAR Prize
ISPAC	International Society of Polyaromatic Compounds
NMRS	National Magnetic Resonance Society of India
NOBCChe	National Organization for Professional Advancement of Black Chemists and Chemical Engineers
Pacificchem	International Chemical Congress of Pacific Basin Societies
SETAC	Society of Environmental Toxicology and Chemistry

In addition to conferences, CIL also organizes and supports various symposia each year to promote the discussion of timely topics and new research discoveries. Please visit our website at [www.isotope.com](http://www.isotope.com) for further information regarding conferences and special events or contact our Marketing department at [envsales@isotope.com](mailto:envsales@isotope.com).

**MEMBERSHIPS**

CIL enjoys being a supporter of several industry organizations that actively contribute to advancements in stable isotope research. Presently, CIL is affiliated with the following associations:

ANZSMS	Australian and New Zealand Society for Mass Spectrometry
AMI	Academy of Molecular Imaging
ABRF	The Association of Biomolecular Resource Facilities
AAAS	American Association for the Advancement of Science
ACS	American Chemical Society
ASMS	American Society for Mass Spectrometry
AUREMN	Associação de Usuários de Ressonância Magnética Nuclear
CNPN	Canadian National Proteomics Network
CRMMA	Chemical Reference Materials Manufacturing Association
EANM	European Association of Nuclear Medicine
GBMSDG	Greater Boston Mass Spec. Discussion Group
HUPO/IAB	Human Proteome Organisation / Industrial Advisory Board
IIS	International Isotope Society
ISNS	Institute for Neonatal Screening
ISSFAL	International Society for the Study of Fatty Acids and Lipids
NGWA	National Groundwater Association
NAOSMM	National Association of Stockroom Managers
SETAC	Society of Environmental Toxicology & Chemistry



## CIL Facilities



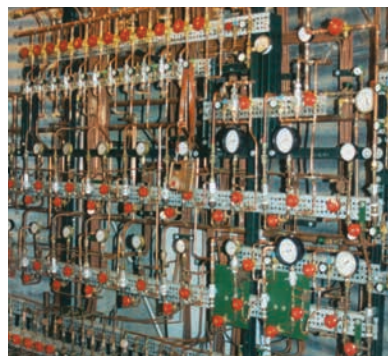
### **CIL WORLD HEADQUARTERS ANDOVER, MA, USA**

For more than 30 years, CIL products have contributed to advancements in drug discovery, environmental analysis, genomics and proteomics, and medical diagnostic research. As we entered our 25th year in operation, we celebrated with a major expansion of our Andover, Massachusetts headquarters and manufacturing facility. In an effort to provide even better support to our loyal customer base, we increased our Quality Control, Technical Services and GMP facilities by almost 50 percent. We have also nearly doubled our Research Products Laboratory and completed significant expansions of our packaging, storage and shipping areas.



### **ISOTOPE SEPARATION FACILITY XENIA, OH, USA**

CIL is a world leader in the separation of  $^{13}\text{C}$  and  $^{18}\text{O}$  isotopes. Twice during the past two decades CIL has taken a leadership position in the separation of stable isotopes. First, CIL constructed the world's largest  $^{13}\text{C}$  separation facility, which has been in continuous operation for over 20 years, and more recently CIL has constructed the world's largest  $^{18}\text{O}$  separation facility. CIL's isotope separation facility, located in Xenia, Ohio provides customers with a dependable, secure supply of stable isotope starting materials.



### **CARBON-13 ISOTOPE SEPARATION FACILITY**

CIL is recognized as the world leader in the separation of  $^{13}\text{C}$ . In the 1980's CIL took the initiative to construct the world's largest  $^{13}\text{C}$  isotope separation plant in order to provide a sufficient supply of  $^{13}\text{C}$  starting materials to support new research and diagnostic developments. CIL's  $^{13}\text{C}$  production facility has an annual production capacity of 120 kg of  $^{13}\text{C}$ .



### **OXYGEN-18 ISOTOPE SEPARATION FACILITY**

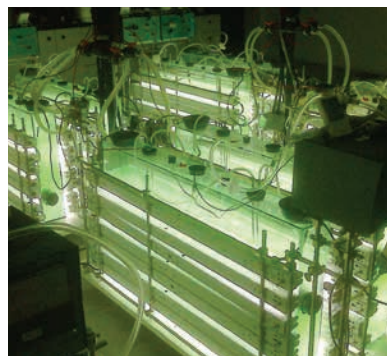
In 2000, CIL responded to the worldwide shortage of  $^{18}\text{O}$  water by embarking on the construction of the world's largest  $^{18}\text{O}$  isotope separation facility. CIL is now the world's leading producer of  $^{18}\text{O}$  water with an annual production capacity of 250 kg. CIL's  $^{18}\text{O}$  water is used in Positron Emission Tomography (PET) and energy expenditure studies.

## CIL Group



### **EURISO-TOP SACLAY, FRANCE**

Euriso-Top is Europe's leading producer of deuterated solvents, GMP Urea and stable isotope labelled compounds. Eurisotop was founded by a group of researchers from the French Atomic Energy Commission (CEA) and its production facilities still reside on the grounds of the CEA.



### **CANADA, INC. MONTREAL, CANADA**

Canada, Inc. is CIL's biotech laboratory facility which produces carbohydrates, enriched media and amino acids for drug discovery applications. Canada, Inc., specializes in algal biosynthesis, including spirulina, chlorella, and a variety of other algal strains for NMR and Proteomics applications.



### **ABX GMBH DRESDEN, GERMANY**

ABX is the world's leading supplier of PET precursors and kits. ABX's GMP approved laboratories, class 100 clean rooms and GMP Radiochemistry Development Hot Lab uniquely position ABX to provide complete PET chemistry solutions to radiochemists and radiopharmacists worldwide.



### **MEMBRANE RECEPTOR TECHNOLOGIES SAN DIEGO, CA, USA**

Membrane Receptor Technologies (MRT) is a collaborative venture between Dr. Stanley Opella, a world-renowned NMR spectroscopist at the University of California-San Diego and CIL. MRT produces highly pure, active folded GPCRs and applies Nuclear Magnetic Resonance (NMR) Spectroscopy to examine interactions between drugs and membrane receptors, especially G-Protein Coupled Receptors (GPCRs), for use in drug discovery.

### Product Information

There are potential hazards associated with the use of any chemical, and CIL's Environmental Contaminant Standards may raise additional exposure considerations. Customers are encouraged to consult standard safety references for the proper use and handling of CIL products.

While every effort was made to ensure the information in this catalog is correct, users of CIL products are responsible for confirming product information.

#### DOCUMENTATION

A Certificate of Analysis (COA) and a Material Safety Data Sheet (MSDS) are supplied with every shipment. Additional product information may be available upon request.

#### NEAT STANDARDS

Neat/Crystalline standards contain approximately the stated mass, as crystal sizes and static electricity may make it difficult to weigh exact milligram quantities. Stated weights should not be used to prepare quantitative standards. Material should be weighed prior to standard formulation. Small amounts may need to be transferred with the use of solvent; the vial should be weighed before transfer, and after all solvent has been evaporated. During shipment, small but significant amounts of material may shift into the vial cap or ampoule tip. Traceable weighing records, or weights tailored to user-specified targets can be obtained for a reasonable surcharge.

#### QUANTITATIVE SOLUTIONS

Standard solutions are prepared to be within  $\pm 2\%$  of the stated concentration, unless otherwise stated on the COA. Analytical information is also provided where appropriate. Of particular use is uncertainty Information, which is calculated uniquely for every formulation. Cumulative uncertainty from all formulation preparation steps such as weighings and dilutions are presented to help analysts determine the accuracy of their own measurements. Uncertainty for mixtures will of necessity have higher uncertainties than those for Individual solutions, because extra formulation steps introduce additional uncertainty.

#### CHEMICAL PURITIES

- Chemical purities of **unlabeled/native standards are 97-99+%** unless otherwise specified.
- Chemical purities of **labeled standards are 95-99+%** unless otherwise specified.

#### ISOTOPIC ENRICHMENT

Isotopic enrichments of labeled standards are 99% for  $^{13}\text{C}$ -labeled atoms, 98% for Deuterium-labeled atoms, and 96% for  $^{37}\text{Cl}$ -labeled atoms, unless otherwise specified. Other Isotopic enrichments such as  $^{15}\text{N}$  and  $^{18}\text{O}$  are on a case-by-case basis.

Isotopic enrichment is the average enrichment for each labeled atom in the molecule. It is not the percentage of the molecules that are completely isotope-labeled. For instance, Dichlorophenol (ring- $^{13}\text{C}_6$ , 99%) is not 99%  $^{13}\text{C}_6$ , and 1%  $^{12}\text{C}_6$ . Each carbon atom position (1,2,3,4,5 & 6) has a 99% chance of being  $^{13}\text{C}$ -labeled, and a 1% chance of being  $^{12}\text{C}$ -labeled. Thus,  $(99\%)^6$  or ~94% of the molecules will have a molecular mass 6 AMU higher than native Dichlorophenol, and ~6% will have a molecular mass 5 AMU higher than native Dichlorophenol. Theoretically, only  $(1\%)^6$  or ~ $10^{-10}\%$  will have the molecular mass of  $^{12}\text{C}_6$ -Dichlorophenol.

#### SOLVENTS USED IN QUANTITATIVE SOLUTIONS

When virtually all the analytes in CIL's Environmental Contaminant Standard products offerings were persistent halogenated aromatic compounds, solvent selection was relatively straightforward. Although Benzene and Toluene were default solvents, they are now solvents of last resort owing to concerns of carcinogenicity. They are also fairly volatile, which can affect the integrity of the quantitative accuracy of the standard. For many years, virtually all of CIL's standards were prepared in Nonane or Isooctane, solvents which CIL buys in bulk as Spectrophotometric Grade, and then distills even further to make suitable for ultra-trace analysis.

The extra-distilled solvents that CIL uses for standard solutions are available for sale to laboratories that wish to dilute or formulate standards using the cleanest possible solvents.

In recent years, as a larger proportion of standards offered by CIL are more polar, and often analyzed in polar media, many standards are now available in polar solvents such as Acetonitrile, Methanol, and even Water. Many of these standards are unstable in certain solvents, so CIL carefully chooses solvents that are suitable in terms of solubility and stability. Even so, some of these classes of compounds are only stable for a few months to a couple years, and special care should be taken to ensure that they are stored properly. In some cases, co-solvents are required for solubility.

#### **STORAGE**

When standards are frozen, it is a good idea to gently warm them to room temperature and vortex before opening. Sonication can cause decomposition of certain compounds, so it should only be used very carefully.

Several compounds that CIL offers have extremely short stability in virtually all solvents. For these products CIL offers neat quantitative standards that can be reconstituted and used as needed. These standards are made by adding a volume of accurately formulated standard solution in the ampoule, and drying off all solvent. The remaining neat product is much more stable than the solution, and can be stored for longer periods.

The biggest threats to the integrity of unopened standards are heat, light (especially UV), Oxygen, and pH. These threats also affect opened standards, or standards that have been combined with other compounds, but opened standards are also subject to contamination from glassware/containers, pipettes, and ambient air. The integrity of opened standards is also threatened by solvent evaporation, solubility (when frozen), and decomposition when mixed with other solvents.

It is always good practice to recertify standards when they have been in storage; the safest laboratory practice is to recertify standards each time they are used.

#### **STATEMENT ON SHELF LIFE TESTING AND EXPIRATION DATES**

Cambridge Isotope Laboratories assigns a retest date and/or expiration date for all manufactured products. The assignments procedure is based upon the known stability characteristics of each product.

- CIL assigns expiration dates for unopened ampoules which have been stored according to CIL's storage instruction. Once the ampoule or vial is opened, it is incumbent upon the user's quality system to decide how long a standard can be used. Ideally, the standard is evaluated each time it is used as part of the analytical QA protocols.
- CIL's expiration date becomes secondary once a standard has been combined with other standards, diluted with solvent, or transferred to a new container. The suitability of the standard then becomes completely dependent on the storage conditions (temperature, light, exposure to other analytes and solvents) and the handling of the standard. The user's QA protocols should determine the duration of the standard's use, and the frequency that it is retested.
- Some products are known to be stable indefinitely. For these products, CIL assigns an expiration date of ten years from the date of release from QC. All other products are retested in five years or less, depending on their chemical characteristics. Most CIL products are sold and shipped with at least one year remaining before the retest date, but occasionally that is not possible.
- Compounds known to be less stable are retested sooner than five years from the date of release; some products are retested as often as every three months or prior to sale, if necessary.



## Additional Information

### 24-HOUR EMERGENCY RESPONSE

Cambridge Isotope Laboratories and its direct subsidiary CIS, Inc. are registered with Emergency Response CHEMTREC®. In the event of a chemical transportation emergency, CHEMTREC® provides immediate advice for those at the scene of emergencies, then promptly contacts the shipper of the chemicals for more detailed assistance and appropriate follow-up. CHEMTREC® operates 24 hours a day, seven days a week to receive emergency calls. In the case of chemical transportation emergencies, call one of the following numbers:

Continental United States: 1-800-424-9300  
 Outside of Continental USA: 1-703-527-3887 (this number may be called collect)

CHEMTREC is a registered trademark of American Chemistry Council, Inc.

### RETURN SHIPMENT POLICY

Returns may be made within 30 days of shipment with prior approval from CIL. We reserve the right to impose restocking charges when a return is at the sole option of the buyer. The buyer is responsible for approving the quality and quantity of any product within the 30-day period stated above. If an error by CIL results in an incorrect or duplicate shipment, a replacement will be sent or the appropriate credit allowed. We typically request return of the original product. Product returns must reference the original purchase order number, CIL order number (e.g. DB-A1000), Returned Goods Authorization (RGA) number, and the date CIL authorized the return. Under no circumstances will credit or replacement be given for products without prior authorization by CIL.

### LIMITED WARRANTY

We claim only that CIL products are as described upon shipment. CIL makes no other warranty, express or implied, with respect to our products, including any warranty of merchantability or fitness for any particular purpose. CIL's maximum liability for any reason shall be replacement of the product or refund of the purchase price.

### LABELING

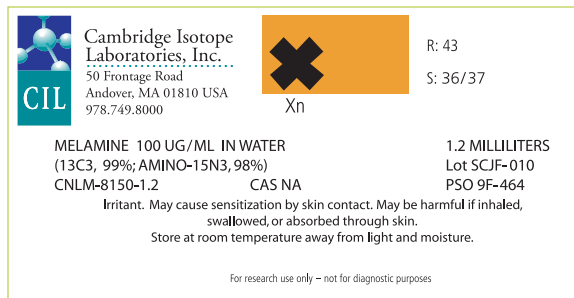
CIL has implemented packaging and labeling procedures for all products to include the Hazard Symbols and Risk and Safety Codes. These labels comply with the EU REACH, DOT, and IATA requirements for the classification, packaging and Labeling of dangerous preparations. CIL Material Safety Data Sheets contain the required information of EC No., Danger Symbols, Risk and Safety Codes and the associated Risk and Safety phrases.

As the UN-initiated Globally Harmonized System of Classification (GHS), Labeling and Packaging begins to take effect, CIL has begun to implement GHS compliance. CIL has begun to systematically reclassify its diverse products to harmonize the classification and the hazard communication elements of chemicals for both labels and Material Safety Data Sheets. GHS is scheduled for incorporation in most participating countries by December 2010, with a two-year implementation period.

### PRODUCT LISTING

#### OUR LABELS INCLUDE:

- Product name and description
- Health risk and safety information
- Lot specific number
- Package size
- Pictograms for hazard recognition
- CAS numbers
- Storage information
- Packaging number
- Catalog number



### HAZARDOUS GOODS CLASSIFICATION

Hazardous materials are identified using the icons found below. Please contact our Customer Service Department with any questions relating to hazardous goods classification.



Biohazard



Corrosive



Environmental  
Danger



Explosive



Flammable



Harmful  
Irritant



Oxidizing



Toxic

## Packaging Information



### LIQUIDS

Scored (breakneck) clear or amber glass ampoules which are flame sealed under nitrogen atmosphere. CIL's state-of-the-art ampouling machine allows us to maintain the highest consistency and quality. Sizes range from 0.1 g to 50 g. Amber glass, screw cap bottles with teflon lined caps and tape seals are also used. Standard sizes range from 5 g to 1 kg.



### SOLIDS

Amber glass, wide mouth, screw cap jars with teflon lined caps and tape seals. Clear glass conical vials are used for small quantities.




### QUANTITATIVE SOLUTIONS

While many of CIL's Environmental Contaminant Standards are packaged in vials, most are supplied as quantitative solutions in amber vials to prevent evaporation. Ampoules are stored in cardboard rondos or plastic "clamshells" with outside labels. Follow the storage instructions, and carefully transfer to other packaging or end-use mixtures as appropriate.

## Notes

## Dioxin and Furan Individual Standards

A large industrial smokestack is shown in silhouette at the bottom left, emitting a thick, dark plume of smoke that rises vertically. At the top of the plume, a large, bright yellow-orange fireball is visible, surrounded by a larger, more diffuse plume of smoke. The background is a solid, deep red color, suggesting a sunset or a fire. The overall scene is dramatic and emphasizes the scale of industrial emissions.

Dioxins and Furans are organic pollutants that can be found as byproducts in commercial organochloride pesticide formulations, chlorine-bleached pulp and paper products, and incineration of organic material in the presence of chlorine. Dioxins are persistent in the environment, bioaccumulate in humans and animals, and are suspected to be teratogenic, mutagenic, and carcinogenic.



## Certified Reference Standards

The preparation of polychlorinated dibenzo-*p*-dioxin (PCDD) and dibenzofuran (PCDF) certified solution standards begins with the total synthesis of each isomer from known, well-characterized intermediates. Cerilliant QC protocol specifies that all materials be tested to determine identity (multiple techniques), isomer specificity, and purity (multiple techniques), prior to acceptance as a raw material. With few exceptions, our specifications require a chemical purity of >98% for native material and chemical purity of >97% for <sup>13</sup>C material.

Preparation of CIL/Cerilliant certified solution standards is tightly controlled using a validated process to ensure accuracy and consistency. Our gravimetric approach (both analyte and solvent are added by weight) is performed using high precision 5-place, micro and ultra-micro analytical balances and governed by exacting procedures to ensure minimal uncertainty. Balances are fully qualified in their installed state, are calibrated semi-annually with weekly and pre-use verifications performed – all using NIST traceable weights. Various controls are employed during the dispensing process to ensure no evaporation, degradation, or contamination occurs and to ensure homogeneity and consistency of fill volume from ampoule to ampoule.

Fully certified standards are then put through rigorous QC testing to verify concentration accuracy, consistency with previous lots (when available), and comparison to the corresponding native or <sup>13</sup>C analog. Finally, homogeneity is assured through testing of samples pulled during the dispensing process using a random stratified sampling plan. The analytical results are detailed in a comprehensive Certificate of Analysis (COA) containing complete traceability documentation, which is supplied with each product at no additional charge.

An international round robin study composed of independent government, commercial, and research laboratories analyzed all 17 CIL/Cerilliant 2,3,7,8-containing polychlorinated dibenzo-*p*-dioxin (PCDD) and dibenzofuran (PCDF) individual solution standards in August 1987. The objective of the study was to determine the accuracy of CIL/Cerilliant solution reference standards. The consensus average values for each of these solutions agreed closely with CIL/Cerilliant reported values – in fact, 15 out of the 17 were within 4%.

### Cambridge Isotope Laboratories (CIL) and Cerilliant Corporation would like to thank the following laboratories for their participation in this study:

Battelle – Columbus Laboratories  
Columbus, OH

Midwest Research Institute  
Kansas City, MO

Centers for Disease Control  
Atlanta, GA

Monsanto Company  
St. Louis, MO

Dow Chemical Company  
Midland, MI

Triangle Labs  
Research Triangle Park, NC

Ontario Ministry of the Environment  
Rexdale, Ontario, Canada

Twin City Testing  
St. Paul, MN

## Unlabeled Chlorodioxin/Furan Standards for Elution Profiling

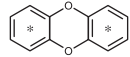
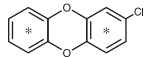
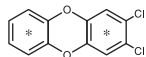
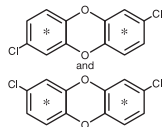
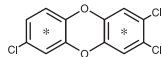
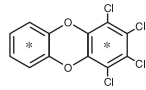
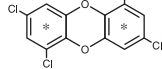
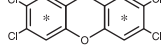
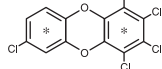
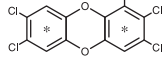
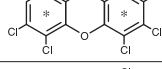
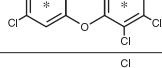
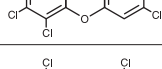
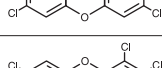
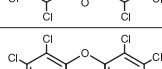
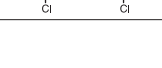
CIL introduces the first commercially available set of all 136 Tetra-Octa chlorinated dioxin and furan congeners. These qualitative standards are available as ~25ng/mL solutions in Nonane and are used primarily for elution profiling and peak identification. Homolog group kits are available, as is a suite of all 136 congeners. See pages 10-11 for full product listings.

## ISO Accreditation

Adding to our list of firsts in the field of dioxin and furan reference standards, CIL is pleased to announce the availability of the first dioxin and furan standards manufactured under **ISO/IEC 17025 and ISO Guide 34 accreditation**.

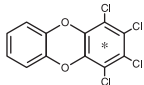
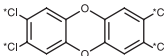
Cerilliant Corporation, CIL's longtime collaborator for dioxin and furan standards, has received accreditation under ISO Guide 34 for Reference Material Producers, as well as ISO/IEC 17025 for Testing and Calibration Laboratories. These two new accreditations provide a powerful boost to their already impressive quality credentials, including ISO-9001:2008.

## <sup>13</sup>C<sub>12</sub> Labeled Chlorodioxin Standards

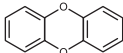
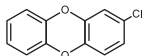
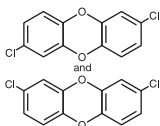
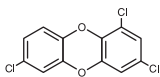
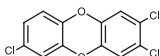
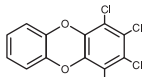
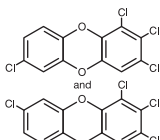
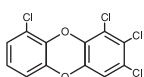
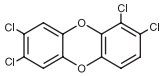
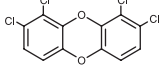
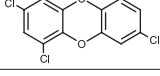
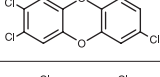
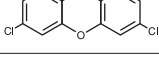
Catalog #	Compound		Concentration	Amount
CLM-1544-1.2	<b>Dibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4169	<b>2-Monochlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4170	<b>2,3-Dichlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-925	<b>2,7-Dichlorodibenzo-<i>p</i>-dioxin / 2,8-Dichlorodibenzo-<i>p</i>-dioxin isomer pair</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-2531	<b>2,3,7-Trichlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-911	<b>1,2,3,4-Tetrachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
NEW ED-911-1			1 ± 0.05 µg/mL in Nonane	1.2 mL
NEW ED-911-200			200 ± 10 ng/mL in Nonane	1.2 mL
ED-4198	<b>1,3,6,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-900	<b>2,3,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-4076	<b>1,2,3,4,7-Pentachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-955	<b>1,2,3,7,8-Pentachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-4077	<b>1,2,3,4,6,7-Hexachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-946	<b>1,2,3,4,7,8-Hexachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-966	<b>1,2,3,6,7,8-Hexachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in 80% Nonane/20% Toluene	1.2 mL
ED-996	<b>1,2,3,7,8,9-Hexachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in 80% Nonane/20% Toluene	1.2 mL
ED-972	<b>1,2,3,4,6,7,8-Heptachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-981	<b>Octachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10 ± 0.5 µg/mL in Nonane	4 x 1.2 mL

# Dioxin and Furan Individual Standards

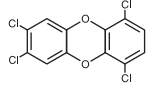
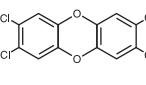
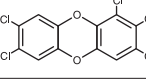
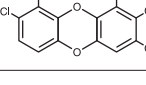
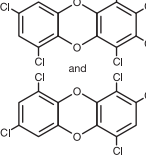
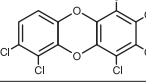
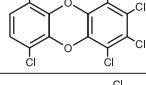
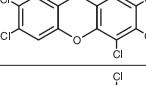
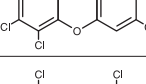
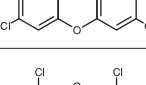
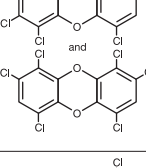
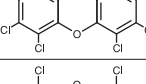
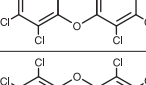
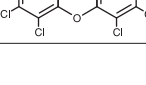
## <sup>13</sup>C<sub>6</sub> and <sup>37</sup>Cl<sub>4</sub> Labeled Chlorodioxin Standards

Catalog #	Compound		Concentration	Amount
ED-910	<b>1,2,3,4-Tetrachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-907	<b>2,3,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>37</sup> Cl <sub>4</sub> ,96%)		50 ± 5 µg/mL in Nonane	1.2 mL

## Unlabeled Chlorodioxin Standards

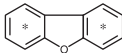
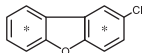
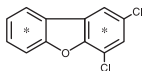
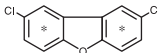
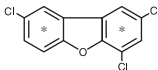
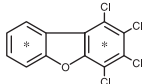
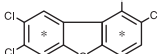
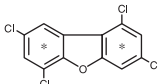
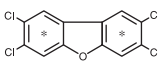
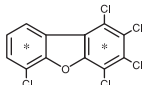
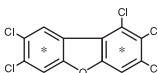
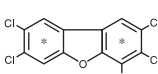
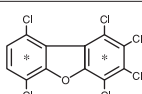
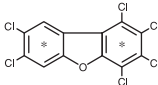
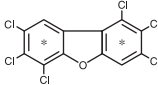
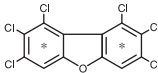
ULM-1711-1.2	<b>Dibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-1771 ED-1771-C	<b>2-Monochlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
ED-926	<b>2,7-Dichlorodibenzo--dioxin/ 2,8-Dichlorodibenzo--dioxin Isomer Pair</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4090	<b>1,3,7-Trichlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-1779 ED-1779-C	<b>2,3,7-Trichlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
ED-912	<b>1,2,3,4-Tetrachlorodibenzo--dioxin</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-905	<b>1,2,3,7-Tetrachlorodibenzo--dioxin/ 1,2,3,8-Tetrachlorodibenzo--dioxin Isomer Pair</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-948	<b>1,2,3,9-Tetrachlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-915	<b>1,2,7,8-Tetrachlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-916	<b>1,2,8,9-Tetrachlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-2518	<b>1,3,6,8-Tetrachlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-917	<b>1,3,7,8-Tetrachlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4061	<b>1,3,7,9-Tetrachlorodibenzo--dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL

## Unlabeled Chlorodioxin Standards

Catalog #	Compound		Concentration	Amount
ED-922	<b>1,4,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-901	<b>2,3,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 2.5 µg/mL in Nonane	4 x 1.2 mL
ED-901-A			10 ± 1 µg/mL in Methanol	1.2 mL
ED-901-B			50 ± 5 µg/mL in DMSO	1.2 mL
ED-901-C			Crystalline solid	1 mg
ED-901-D			32 ± 4 µg/µL in DMSO (100 nM)	0.2 mL
ED-950	<b>1,2,3,7,8-Pentachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-950-C			Crystalline solid	1 mg
ED-924	<b>1,2,3,8,9-Pentachlorodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-927	<b>1,2,4,6,8-Pentachlorodibenzo-<i>p</i>-dioxin/ 1,2,4,7,9-Pentachlorodibenzo-<i>p</i>-dioxin Isomer Pair</b>		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-932	<b>1,2,3,4,6,7-Hexachlorodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-933	<b>1,2,3,4,6,9-Hexachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-933-C			Crystalline solid	1 mg
ED-961	<b>1,2,3,4,7,8-Hexachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-960	<b>1,2,3,6,7,8-Hexachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-960-C			Crystalline solid	1 mg
ED-969	<b>1,2,3,7,8,9-Hexachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-969-C			Crystalline solid	1 mg
ED-929	<b>1,2,4,6,7,9-Hexachlorodibenzo-<i>p</i>-dioxin/ 1,2,4,6,8,9-Hexachlorodibenzo-<i>p</i>-dioxin Isomer Pair</b>		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-971	<b>1,2,3,4,6,7,8-Heptachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-971-C			Crystalline solid	1 mg
ED-976	<b>1,2,3,4,6,7,9-Heptachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-980	<b>Octachlorodibenzo-<i>p</i>-dioxin</b>		10 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
ED-980-C			Crystalline solid	10 mg

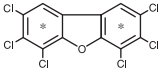
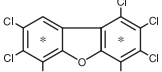
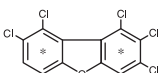
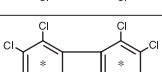
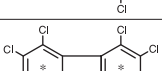
Other isomers may be available on a special request basis. Please inquire.

## <sup>13</sup>C<sub>12</sub> Labeled Chlorofuran Standards

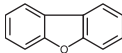
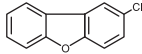
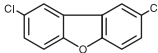
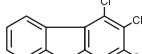
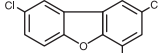
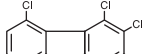

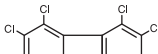
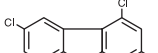
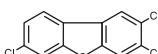
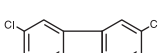
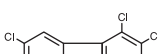
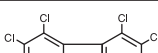


Catalog #	Compound		Concentration	Amount
CLM-1561-1.2	<b>Dibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-4168	<b>2-Monochlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-4171	<b>2,4-Dichlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-4016	<b>2,8-Dichlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-4172	<b>2,4,8-Trichlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-920	<b>1,2,3,4-Tetrachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-1438	<b>1,2,7,8-Tetrachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-5009	<b>1,3,6,8-Tetrachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-904	<b>2,3,7,8-Tetrachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-5050	<b>1,2,3,4,6-Pentachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-952	<b>1,2,3,7,8-Pentachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-958	<b>2,3,4,7,8-Pentachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-5052	<b>1,2,3,4,6,9-Hexachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-963	<b>1,2,3,4,7,8-Hexachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-985	<b>1,2,3,6,7,8-Hexachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-986	<b>1,2,3,7,8,9-Hexachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL



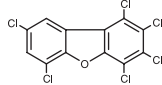
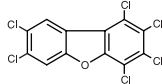
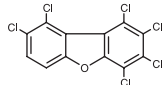
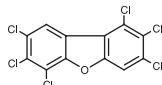
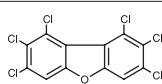
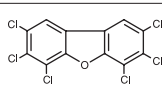
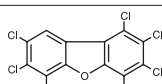
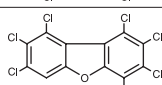
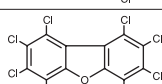
## <sup>13</sup>C<sub>12</sub> Labeled Chlorofuran Standards

Catalog #	Compound		Concentration	Amount
EF-987	<b>2,3,4,6,7,8-Hexachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-974	<b>1,2,3,4,6,7,8-Heptachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-5054	<b>1,2,3,4,6,8,9-Heptachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
EF-988	<b>1,2,3,4,7,8,9-Heptachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-983	<b>Octachlorodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 2.5 µg/mL in Nonane	1.2 mL

## Unlabeled Chlorofuran Standards

Catalog #	Compound		Concentration	Amount
ULM-1712-1.2	<b>Dibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-1785	<b>2-Monochlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-1789	<b>2,8-Dichlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-1790	<b>1,2,3-Trichlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-1793 EF-1793-C	<b>2,4,8-Trichlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
EF-4030	<b>1,2,3,9-Tetrachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-918	<b>1,2,7,8-Tetrachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-939	<b>1,2,8,9-Tetrachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-944	<b>1,3,6,8-Tetrachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-4031	<b>2,3,4,7-Tetrachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-903 EF-903-C	<b>2,3,7,8-Tetrachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
EF-953 EF-953-M EF-953-C	<b>1,2,3,7,8-Pentachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane 50 ± 2.5 µg/mL in Methanol Crystalline solid	1.2 mL 1.2 mL 1 mg
EF-954	<b>1,2,3,8,9-Pentachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-942-50	<b>1,3,4,6,8-Pentachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-956 EF-956-C	<b>2,3,4,7,8-Pentachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg

## Unlabeled Chlorofuran Standards

Catalog #	Compound		Concentration	Amount
EF-943-50	<b>1,2,3,4,6,8-Hexachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-964 EF-964-C	<b>1,2,3,4,7,8-Hexachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
EF-965	<b>1,2,3,4,8,9-Hexachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EF-962	<b>1,2,3,6,7,8-Hexachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-967 EF-967-C	<b>1,2,3,7,8,9-Hexachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
EF-968	<b>2,3,4,6,7,8-Hexachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-973	<b>1,2,3,4,6,7,8-Heptachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-975	<b>1,2,3,4,7,8,9-Heptachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-982 EF-982-C	<b>Octachlorodibenzofuran</b>		50 ± 2.5 µg/mL in Nonane Crystalline solid	1.2 mL 10 mg

Other isomers may be available on a special request basis. Please inquire.

## Unlabeled Chlorofuran Standards for Elution Profiling

All concentrations are ~25 ng/mL in Nonane

Catalog #	Compound	Amount
JR-F01-25	<b>1,2,3,4-TetraCDF</b>	0.2 mL
JR-F02-25	<b>1,2,3,6-TetraCDF</b>	0.2 mL
JR-F03-25	<b>1,2,3,7-TetraCDF</b>	0.2 mL
JR-F04-25	<b>1,2,3,8-TetraCDF</b>	0.2 mL
JR-F05-25	<b>1,2,3,9-TetraCDF</b>	0.2 mL
JR-F06-25	<b>1,2,4,6-TetraCDF</b>	0.2 mL
JR-F07-25	<b>1,2,4,7-TetraCDF</b>	0.2 mL
JR-F08-25	<b>1,2,4,8-TetraCDF</b>	0.2 mL
JR-F09-25	<b>1,2,4,9-TetraCDF</b>	0.2 mL
JR-F10-25	<b>1,2,6,7-TetraCDF</b>	0.2 mL
JR-F11-25	<b>1,2,6,8-TetraCDF</b>	0.2 mL
JR-F12-25	<b>1,2,6,9-TetraCDF</b>	0.2 mL
JR-F13-25	<b>1,2,7,8-TetraCDF</b>	0.2 mL
JR-F14-25	<b>1,2,7,9-TetraCDF</b>	0.2 mL
JR-F15-25	<b>1,2,8,9-TetraCDF</b>	0.2 mL
JR-F16-25	<b>1,3,4,6-TetraCDF</b>	0.2 mL
JR-F17-25	<b>1,3,4,7-TetraCDF</b>	0.2 mL
JR-F18-25	<b>1,3,4,8-TetraCDF</b>	0.2 mL
JR-F19-25	<b>1,3,4,9-TetraCDF</b>	0.2 mL
JR-F20-25	<b>1,3,6,7-TetraCDF</b>	0.2 mL
JR-F21-25	<b>1,3,6,8-TetraCDF</b>	0.2 mL
JR-F22-25	<b>1,3,6,9-TetraCDF</b>	0.2 mL
JR-F23-25	<b>1,3,7,8-TetraCDF</b>	0.2 mL
JR-F24-25	<b>1,3,7,9-TetraCDF</b>	0.2 mL
JR-F25-25	<b>1,4,6,7-TetraCDF</b>	0.2 mL
JR-F26-25	<b>1,4,6,8-TetraCDF</b>	0.2 mL
JR-F27-25	<b>1,4,6,9-TetraCDF</b>	0.2 mL
JR-F28-25	<b>1,4,7,8-TetraCDF</b>	0.2 mL
JR-F29-25	<b>1,6,7,8-TetraCDF</b>	0.2 mL
JR-F30-25	<b>2,3,4,6-TetraCDF</b>	0.2 mL
JR-F31-25	<b>2,3,4,7-TetraCDF</b>	0.2 mL
JR-F32-25	<b>2,3,4,8-TetraCDF</b>	0.2 mL
JR-F33-25	<b>2,3,6,7-TetraCDF</b>	0.2 mL
JR-F34-25	<b>2,3,6,8-TetraCDF</b>	0.2 mL
JR-F35-25	<b>2,3,7,8-TetraCDF</b>	0.2 mL
JR-F36-25	<b>2,4,6,7-TetraCDF</b>	0.2 mL
JR-F37-25	<b>2,4,6,8-TetraCDF</b>	0.2 mL
JR-F38-25	<b>3,4,6,7-TetraCDF</b>	0.2 mL
JR-F39-25	<b>1,2,3,4,6-PentaCDF</b>	0.2 mL
JR-F40-25	<b>1,2,3,4,7-PentaCDF</b>	0.2 mL
JR-F41-25	<b>1,2,3,4,8-PentaCDF</b>	0.2 mL
JR-F42-25	<b>1,2,3,4,9-PentaCDF</b>	0.2 mL
JR-F43-25	<b>1,2,3,6,7-PentaCDF</b>	0.2 mL
JR-F44-25	<b>1,2,3,6,8-PentaCDF</b>	0.2 mL

Catalog #	Compound	Amount
JR-F45-25	<b>1,2,3,6,9-PentaCDF</b>	0.2 mL
JR-F46-25	<b>1,2,3,7,8-PentaCDF</b>	0.2 mL
JR-F47-25	<b>1,2,3,7,9-PentaCDF</b>	0.2 mL
JR-F48-25	<b>1,2,3,8,9-PentaCDF</b>	0.2 mL
JR-F49-25	<b>1,2,4,6,7-PentaCDF</b>	0.2 mL
JR-F50-25	<b>1,2,4,6,8-PentaCDF</b>	0.2 mL
JR-F51-25	<b>1,2,4,6,9-PentaCDF</b>	0.2 mL
JR-F52-25	<b>1,2,4,7,8-PentaCDF</b>	0.2 mL
JR-F53-25	<b>1,2,4,7,9-PentaCDF</b>	0.2 mL
JR-F54-25	<b>1,2,4,8,9-PentaCDF</b>	0.2 mL
JR-F55-25	<b>1,2,6,7,8-PentaCDF</b>	0.2 mL
JR-F56-25	<b>1,2,6,7,9-PentaCDF</b>	0.2 mL
JR-F57-25	<b>1,3,4,6,7-PentaCDF</b>	0.2 mL
JR-F58-25	<b>1,3,4,6,8-PentaCDF</b>	0.2 mL
JR-F59-25	<b>1,3,4,6,9-PentaCDF</b>	0.2 mL
JR-F60-25	<b>1,3,4,7,8-PentaCDF</b>	0.2 mL
JR-F61-25	<b>1,3,4,7,9-PentaCDF</b>	0.2 mL
JR-F62-25	<b>1,3,6,7,8-PentaCDF</b>	0.2 mL
JR-F63-25	<b>1,4,6,7,8-PentaCDF</b>	0.2 mL
JR-F64-25	<b>2,3,4,6,7-PentaCDF</b>	0.2 mL
JR-F65-25	<b>2,3,4,6,8-PentaCDF</b>	0.2 mL
JR-F66-25	<b>2,3,4,7,8-PentaCDF</b>	0.2 mL
JR-F67-25	<b>1,2,3,4,6,7-HexaCDF</b>	0.2 mL
JR-F68-25	<b>1,2,3,4,6,8-HexaCDF</b>	0.2 mL
JR-F69-25	<b>1,2,3,4,6,9-HexaCDF</b>	0.2 mL
JR-F70-25	<b>1,2,3,4,7,8-HexaCDF</b>	0.2 mL
JR-F71-25	<b>1,2,3,4,7,9-HexaCDF</b>	0.2 mL
JR-F72-25	<b>1,2,3,4,8,9-HexaCDF</b>	0.2 mL
JR-F73-25	<b>1,2,3,6,7,8-HexaCDF</b>	0.2 mL
JR-F74-25	<b>1,2,3,6,7,9-HexaCDF</b>	0.2 mL
JR-F75-25	<b>1,2,3,6,8,9-HexaCDF</b>	0.2 mL
JR-F76-25	<b>1,2,3,7,8,9-HexaCDF</b>	0.2 mL
JR-F77-25	<b>1,2,4,6,7,8-HexaCDF</b>	0.2 mL
JR-F78-25	<b>1,2,4,6,7,9-HexaCDF</b>	0.2 mL
JR-F79-25	<b>1,2,4,6,8,9-HexaCDF</b>	0.2 mL
JR-F80-25	<b>1,3,4,6,7,8-HexaCDF</b>	0.2 mL
JR-F81-25	<b>1,3,4,6,7,9-HexaCDF</b>	0.2 mL
JR-F82-25	<b>2,3,4,6,7,8-HexaCDF</b>	0.2 mL
JR-F83-25	<b>1,2,3,4,6,7,8-HeptaCDF</b>	0.2 mL
JR-F84-25	<b>1,2,3,4,6,7,9-HeptaCDF</b>	0.2 mL
JR-F85-25	<b>1,2,3,4,6,8,9-HeptaCDF</b>	0.2 mL
JR-F86-25	<b>1,2,3,4,7,8,9-HeptaCDF</b>	0.2 mL
JR-F87-25	<b>1,2,3,4,6,7,8,9-OctaCDF</b>	0.2 mL

## Unlabeled Chlorodioxin Standards for Elution Profiling

All concentrations are ~25 ng/mL in Nonane

Catalog #	Compound	Amount
JR-D01-25	<b>1,2,3,4-TetraCDD</b>	0.2 mL
JR-D02-25	<b>1,2,3,6-TetraCDD</b>	0.2 mL
JR-D03-25	<b>1,2,3,7-TetraCDD</b>	0.2 mL
JR-D04-25	<b>1,2,3,8-TetraCDD</b>	0.2 mL
JR-D05-25	<b>1,2,3,9-TetraCDD</b>	0.2 mL
JR-D06-25	<b>1,2,4,6-TetraCDD</b>	0.2 mL
JR-D07-25	<b>1,2,4,7-TetraCDD</b>	0.2 mL
JR-D08-25	<b>1,2,4,8-TetraCDD</b>	0.2 mL
JR-D09-25	<b>1,2,4,9-TetraCDD</b>	0.2 mL
JR-D10-25	<b>1,2,6,7-TetraCDD</b>	0.2 mL
JR-D11-25	<b>1,2,6,8-TetraCDD</b>	0.2 mL
JR-D12-25	<b>1,2,6,9-TetraCDD</b>	0.2 mL
JR-D13-25	<b>1,2,7,8-TetraCDD</b>	0.2 mL
JR-D14-25	<b>1,2,7,9-TetraCDD</b>	0.2 mL
JR-D15-25	<b>1,2,8,9-TetraCDD</b>	0.2 mL
JR-D16-25	<b>1,3,6,8-TetraCDD</b>	0.2 mL
JR-D17-25	<b>1,3,6,9-TetraCDD</b>	0.2 mL
JR-D18-25	<b>1,3,7,8-TetraCDD</b>	0.2 mL
JR-D19-25	<b>1,3,7,9-TetraCDD</b>	0.2 mL
JR-D20-25	<b>1,4,6,9-TetraCDD</b>	0.2 mL
JR-D21-25	<b>1,4,7,8-TetraCDD</b>	0.2 mL
JR-D22-25	<b>2,3,7,8-TetraCDD</b>	0.2 mL
JR-D23-25	<b>1,2,3,4,6-PentaCDD</b>	0.2 mL
JR-D24-25	<b>1,2,3,4,7-PentaCDD</b>	0.2 mL
JR-D25-25	<b>1,2,3,6,7-PentaCDD</b>	0.2 mL

Catalog #	Compound	Amount
JR-D26-25	<b>1,2,3,6,8-PentaCDD</b>	0.2 mL
JR-D27-25	<b>1,2,3,6,9-PentaCDD</b>	0.2 mL
JR-D28-25	<b>1,2,3,7,8-PentaCDD</b>	0.2 mL
JR-D29-25	<b>1,2,3,7,9-PentaCDD</b>	0.2 mL
JR-D30-25	<b>1,2,3,8,9-PentaCDD</b>	0.2 mL
JR-D31-25	<b>1,2,4,6,7-PentaCDD</b>	0.2 mL
JR-D32-25	<b>1,2,4,6,8-PentaCDD</b>	0.2 mL
JR-D33-25	<b>1,2,4,6,9-PentaCDD</b>	0.2 mL
JR-D34-25	<b>1,2,4,7,8-PentaCDD</b>	0.2 mL
JR-D35-25	<b>1,2,4,7,9-PentaCDD</b>	0.2 mL
JR-D36-25	<b>1,2,4,8,9-PentaCDD</b>	0.2 mL
JR-D37-25	<b>1,2,3,4,6,7-HexaCDD</b>	0.2 mL
JR-D38-25	<b>1,2,3,4,6,8-HexaCDD</b>	0.2 mL
JR-D39-25	<b>1,2,3,4,6,9-HexaCDD</b>	0.2 mL
JR-D40-25	<b>1,2,3,4,7,8-HexaCDD</b>	0.2 mL
JR-D41-25	<b>1,2,3,6,7,8-HexaCDD</b>	0.2 mL
JR-D42-25	<b>1,2,3,6,7,9-HexaCDD</b>	0.2 mL
JR-D43-25	<b>1,2,3,6,8,9-HexaCDD</b>	0.2 mL
JR-D44-25	<b>1,2,3,7,8,9-HexaCDD</b>	0.2 mL
JR-D45-25	<b>1,2,4,6,7,9-HexaCDD</b>	0.2 mL
JR-D46-25	<b>1,2,4,6,8,9-HexaCDD</b>	0.2 mL
JR-D47-25	<b>1,2,3,4,6,7,8-HeptaCDD</b>	0.2 mL
JR-D48-25	<b>1,2,3,4,6,7,9-HeptaCDD</b>	0.2 mL
JR-D49-25	<b>1,2,3,4,6,7,8,9-OctaCDD</b>	0.2 mL

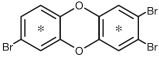
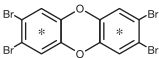
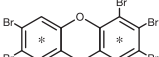
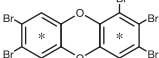
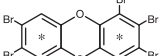
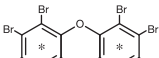
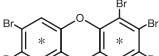
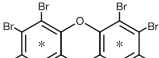
For convenience, CIL has bundled these standards by level of chlorination. Kits are available for tetra through hexa dioxins and tetra through hepta furans. A comprehensive kit containing all available standards is also available.

JR-TCDD-KIT	<b>Comprehensive Tetrachlorodibenzo-<i>p</i>-dioxin Column Defining Kit</b>	1 kit
JR-TCDF-KIT	<b>Comprehensive Tetrachlorodibenzofuran Column Defining Kit</b>	1 kit
JR-PECDD-KIT	<b>Comprehensive Pentachlorodibenzo-<i>p</i>-dioxin Column Defining Kit</b>	1 kit
JR-PECDF-KIT	<b>Comprehensive Pentachlorodibenzofuran Column Defining Kit</b>	1 kit
JR-HXCDD-KIT	<b>Comprehensive Hexachlorodibenzo-<i>p</i>-dioxin Column Defining Kit</b>	1 kit
JR-HXCDF-KIT	<b>Comprehensive Hexachlorodibenzofuran Column Defining Kit</b>	1 kit
JR-HPCDF-KIT	<b>Comprehensive Heptachlorodibenzofuran Column Defining Kit</b>	1 kit
JR-PCDD/F-KIT	<b>Comprehensive Polychlorinated Dioxin and Furan Column Defining Kit Includes all 136 "JR" dioxin and furan congeners</b>	1 kit

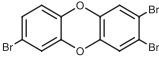
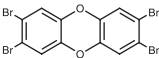
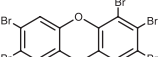
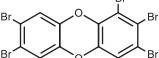
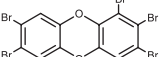
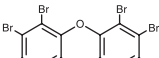
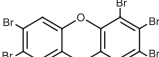
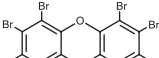


# Dioxin and Furan Individual Standards

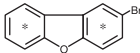
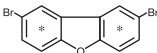
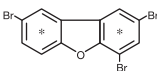
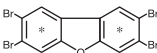
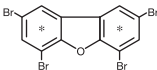
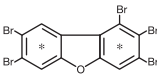
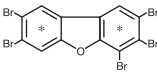
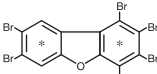
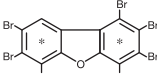
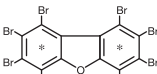
## <sup>13</sup>C<sub>12</sub> Labeled Bromodioxin Standards

Catalog #	Compound		Concentration	Amount
ED-2532	<b>2,3,7-Tribromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
ED-1440 <b>NEW</b> ED-1440-1.2	<b>2,3,7,8-Tetrabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL 1.2 mL
ED-1450 <b>NEW</b> ED-1450-1.2	<b>1,2,3,7,8-Pentabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL 1.2 mL
ED-2534 <b>NEW</b> ED-2534-1.2	<b>1,2,3,4,7,8-Hexabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL 1.2 mL
ED-5237 <b>NEW</b> ED-5237-1.2	<b>1,2,3,6,7,8-Hexabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in 70% <i>n</i> -Nonane/30% Toluene	4 x 1.2 mL 1.2 mL
ED-5238 <b>NEW</b> ED-5238-1.2	<b>1,2,3,7,8,9-Hexabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL 1.2 mL
ED-5357 <b>NEW</b> ED-5357-1.2	<b>1,2,3,4,6,7,8-Heptabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> , 99%)		5 ± 0.5 µg/mL in 70% <i>n</i> -Nonane/30% Toluene	4 x 1.2 mL 1.2 mL
ED-5089-1.2	<b>Octabromodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in 70% Nonane/30% Toluene	1.2 mL

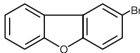
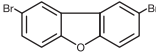
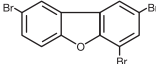
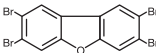
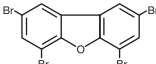
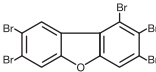
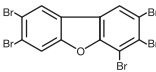
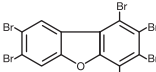
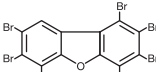
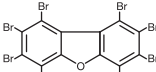
## Unlabeled Bromodioxin Standards

ED-1763	<b>2,3,7-Tribromodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
ED-1441 <b>NEW</b> ED-1441-1.2	<b>2,3,7,8-Tetrabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
ED-1451 <b>NEW</b> ED-1451-1.2	<b>1,2,3,7,8-Pentabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
ED-1462 <b>NEW</b> ED-1462-1.2	<b>1,2,3,4,7,8-Hexabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
ED-1465 <b>NEW</b> ED-1465-1.2	<b>1,2,3,6,7,8-Hexabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in 50% <i>n</i> -Nonane/50% Toluene	8 x 1.2 mL 1.2 mL
ED-1466 <b>NEW</b> ED-1466-1.2	<b>1,2,3,7,8,9-Hexabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
ED-5356 <b>NEW</b> ED-5356-1.2	<b>1,2,3,4,6,7,8-Heptabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in 70% <i>n</i> -Nonane/30% Toluene	8 x 1.2 mL 1.2 mL
ED-1481 ED-1481-1.2	<b>Octabromodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in Toluene	8 x 1.2 mL 1.2 mL

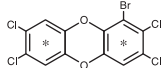
## <sup>13</sup>C<sub>12</sub> Labeled Bromofuran Standards

Catalog #	Compound		Concentration	Amount
<b>NEW</b> EF-5076	<b>2-Monobromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
EF-5078	<b>2,8-Dibromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
<b>NEW</b> EF-5080	<b>2,4,8-Tribromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
EF-1442	<b>2,3,7,8-Tetrabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
<b>NEW</b> EF-1442-1.2				1.2 mL
EF-5082	<b>2,4,6,8-Tetrabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
<b>NEW</b> EF-5082-1.2				1.2 mL
EF-1452	<b>1,2,3,7,8-Pentabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
EF-1452-1.2				1.2 mL
EF-1454	<b>2,3,4,7,8-Pentabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
<b>NEW</b> EF-1454-1.2				1.2 mL
EF-1463	<b>1,2,3,4,7,8-Hexabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in Nonane	4 x 1.2 mL
EF-1463-1.2				1.2 mL
EF-5259	<b>1,2,3,4,6,7,8-Heptabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in	4 x 1.2 mL
<b>NEW</b> EF-5259-1.2			70% Nonane/30% Toluene	1.2 mL
<b>NEW</b> EF-5266	<b>Octabromodibenzofuran</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		5 ± 0.5 µg/mL in	4 x 1.2 mL
<b>NEW</b> EF-5266-1.2			70% Nonane/30% Toluene	1.2 mL

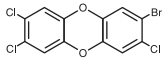
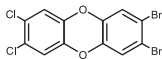
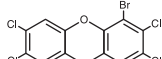
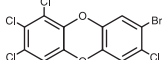
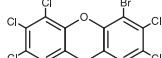
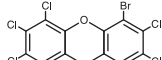
## Unlabeled Bromofuran Standards

Catalog #	Compound		Concentration	Amount
<b>NEW</b> EF-5075	<b>2-Monobromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL
EF-5077	<b>2,8-Dibromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL
<b>NEW</b> EF-5079	<b>2,4,8-Tribromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 X 1.2 mL
EF-1443 <b>NEW</b> EF-1443-1.2	<b>2,3,7,8-Tetrabromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
EF-5081	<b>2,4,6,8-Tetrabromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL
EF-1453 <b>NEW</b> EF-1453-1.2	<b>1,2,3,7,8-Pentabromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
EF-1455 <b>NEW</b> EF-1455-1.2	<b>2,3,4,7,8-Pentabromodibenzofuran</b>		5 ± 0.5 µg/mL in Nonane	8 x 1.2 mL 1.2 mL
EF-1464 <b>NEW</b> EF-1464-1.2	<b>1,2,3,4,7,8-Hexabromodibenzofuran</b>		5 ± 0.5 µg/mL in 70% <i>n</i> -Nonane/30% Toluene	8 x 1.2 mL 1.2 mL
EF-1486 EF-1486-1.2	<b>1,2,3,4,6,7,8-Heptabromodibenzofuran</b> (CP: 96%)		5 ± 0.5 µg/mL in 70% Nonane/30% Toluene	8 x 1.2 mL 1.2 mL
EF-5263 <b>NEW</b> EF-5263-1.2	<b>Octabromodibenzofuran</b>		5 ± 0.5 µg/mL in 70% Nonane/30% Toluene	8 x 1.2 mL 1.2 mL

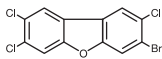
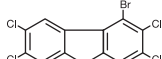
## <sup>13</sup>C<sub>12</sub> Labeled Mixed Bromo/Chlorodioxin Standards

Catalog #	Compound		Concentration	Amount
EBC-2509	<b>1-Bromo-2,3,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b> ( <sup>13</sup> C <sub>12</sub> , 99%)		50 ± 5 µg/mL in Nonane	1.2 mL

## Unlabeled Mixed Bromo/Chlorodioxin Standards

EBC-1743	<b>2-Bromo-3,7,8-Trichlorodibenzo-<i>p</i>-dioxin</b> (CP: 95%)		50 ± 5 µg/mL in Nonane	1.2 mL
EBC-1741	<b>2,3-Dibromo-7,8-Dichlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EBC-2501	<b>1-Bromo-2,3,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EBC-2504	<b>2-Bromo-3,6,7,8,9-Pentachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EBC-2505	<b>1-Bromo-2,3,6,7,8,9-Hexachlorodibenzo-<i>p</i>-dioxin</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EBC-2507-A	<b>1-Bromo-2,3,4,6,7,8,9-Heptachlorodibenzo-<i>p</i>-dioxin</b>		5 ± 0.5 µg/mL in 70% <i>n</i> -Nonane/30% Toluene	8 x 1.2 mL

## Unlabeled Mixed Bromo/Chlorofuran Standards

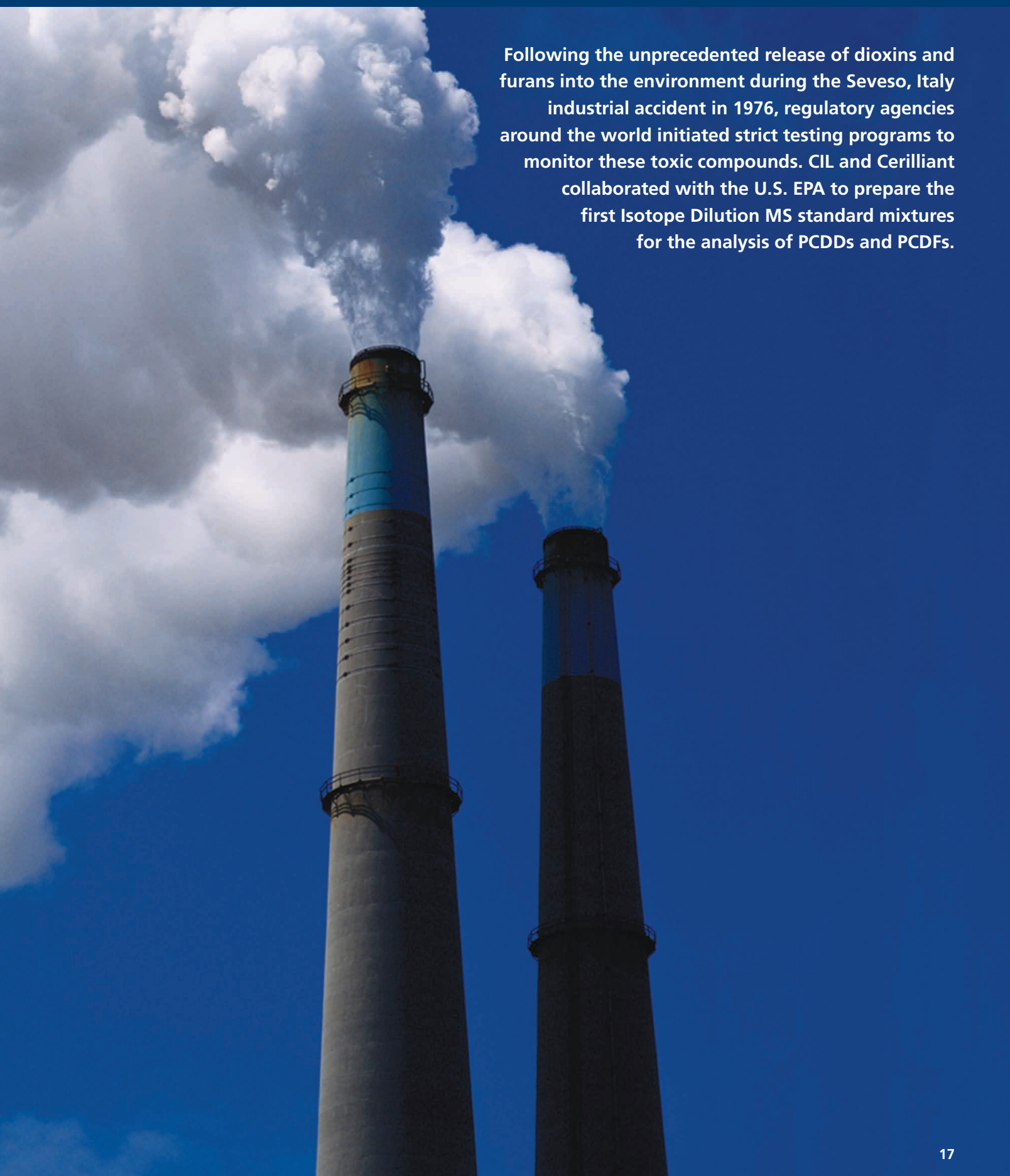
EBC-2500	<b>3-Bromo-2,7,8-Trichlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EBC-2503	<b>1-Bromo-2,3,7,8 Tetrachlorodibenzofuran</b>		50 ± 5 µg/mL in Nonane	1.2 mL

## Notes



## Dioxin and Furan Method Standards, Standard Mixtures and Reference Materials

Following the unprecedented release of dioxins and furans into the environment during the Seveso, Italy industrial accident in 1976, regulatory agencies around the world initiated strict testing programs to monitor these toxic compounds. CIL and Cerilliant collaborated with the U.S. EPA to prepare the first Isotope Dilution MS standard mixtures for the analysis of PCDDs and PCDFs.



## U.S. EPA, JIS, and CEN Dioxin and Furan Method Standard Mixtures

In 1990 CIL/Cerilliant (formerly Radian) introduced the first “ready-to-use” standard mixtures for U.S. EPA Method 1613 “High Resolution GC/MS Method for the Determination of Tetra-Octa Chlorinated Dioxins and Furans”. With the effectiveness and popularity of these pre-formulated mixtures, CIL/Cerilliant next developed “ready-to-use” standards for EPA Method 8280 for low resolution GC/MS analysis of dioxins and furans. Today CIL/Cerilliant offer convenient dioxin and furan standard mixtures for EPA Methods 23 and 8290, as well as the Japanese Industrial Standards methods JIS-K0311 and K0312, and the European Community method EN-1948. Copies of these methods are available upon request.

## NEW Reference Materials

In 2006 CIL completed an international interlaboratory study for the determination of many environmental pollutants in our three fish reference materials, as well as two RMs for soil and sediment. In 2007 CIL conducted another interlab study, this time evaluating dioxins, furans, and PCBs in a new Fly Ash Reference Material. In 2010, CIL has launched yet another interlaboratory study to develop consensus values for priority pollutants in Cod Liver Oil Reference Material. Results for the CLO RM will be available in autumn of 2010.

## Dioxin and Furan plus PCB Standard Mixtures

CIL/Cerilliant have developed several mixtures which include the 2,3,7,8-containing dioxin and furan congeners, as well as the “toxic” PCB congeners. With full calibration series and matching spiking solutions, analysts can test these two commonly combined groups without having to manipulate several different standard sets.

## Non-2,3,7,8-Containing Standard Mixtures

With the development of several new <sup>13</sup>C-labeled “non-2,3,7,8” furan standards, CIL/Cerilliant now offer standard mixtures which contain the traditional 17 “2,3,7,8-containing” standards, as well as the new <sup>13</sup>C-labeled “non-2,3,7,8-containing” congeners. These standard mixtures allow researchers to use all 17 <sup>13</sup>C-labeled 2,3,7,8-containing standards as Internal Standards, while utilizing the labeled “non-2,3,7,8-containing” congeners as Recovery/Injection or Cleanup standards.

## NEW Two Column Dioxin and Furan Standard Mixtures

Two Column dioxin and furan standard mixtures are combination mixtures used to confirm dioxins and furans and PCBs using only two columns. These standards combine the benefits of both the “Dioxin and Furan plus PCB” mixtures and the “Non-2,3,7,8-Containing” mixtures.

## Expanded PBDD/F Standards and Standard Mixtures

Polybrominated dioxins and furans (PBDD/F) can be found at trace levels in technical brominated flame retardant products, and may also be formed from combustion of these materials in the presence of organic compounds. The biological effects of PBDD/Fs are similar to those of their chlorinated analogs which have been regulated for many years. CIL now offers a comprehensive set of labeled and unlabeled standards for PBDD/F analysis, including new calibration series and corresponding spiking solutions containing tetra-octabromo congeners.

## ISO Accreditation

Adding to our list of firsts in the field of dioxin and furan reference standards, CIL is pleased to announce the availability of the first dioxin and furan standards manufactured under **ISO/IEC 17025 and ISO Guide 34 accreditation**.

Cerilliant Corporation, CIL's longtime collaborator for dioxin and furan standards, has received accreditation under ISO Guide 34 for Reference Material Producers, as well as ISO/IEC 17025 for Testing and Calibration Laboratories. These two new accreditations provide a powerful boost to their already impressive quality credentials, including ISO-9001:2008.

U.S. EPA Method 1613 Standard Mixtures

Catalog #	Compound	Amount
EDF-9999	<b>Method 1613 Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
*EDF-9999-0.1	<b>Method 1613 Calibration Solution [CS0.1]</b>	0.2 mL in Nonane
*EDF-9999-0.2	<b>Method 1613 Calibration Solution [CS0.2]</b>	0.2 mL in Nonane
*EDF-9999-0.5	<b>Method 1613 Calibration Solution [CS0.5]</b>	0.2 mL in Nonane
EDF-9999-1	<b>Method 1613 Calibration Solution [CS1]</b>	0.2 mL in Nonane
EDF-9999-2	<b>Method 1613 Calibration Solution [CS2]</b>	0.2 mL in Nonane
EDF-9999-3	<b>Method 1613 Daily Calibration Check Standard [CS3]</b>	0.2 mL in Nonane
EDF-9999-3-4	<b>Method 1613 Daily Calibration Check Standard [CS3]</b>	Set of 4 x 0.2 mL in Nonane
EDF-9999-4	<b>Method 1613 Calibration Solution [CS4]</b>	0.2 mL in Nonane
EDF-9999-5	<b>Method 1613 Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	*CS0.1	*CS0.2	*CS0.5	CS1	CS2	CS3	CS4	CS5
<b>2,3,7,8-TCDD</b>	0.05	0.1	0.25	0.5	2.0	10	40	200
<b>2,3,7,8-TCDF</b>	0.05	0.1	0.25	0.5	2.0	10	40	200
<b>1,2,3,7,8-PeCDD</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,7,8-PeCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>2,3,4,7,8-PeCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,4,7,8-HxCDD</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,6,7,8-HxCDD</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,7,8,9-HxCDD</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,4,7,8-HxCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,6,7,8-HxCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,7,8,9-HxCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>2,3,4,6,7,8-HxCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,4,6,7,8-HpCDD</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,4,6,7,8-HpCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>1,2,3,4,7,8,9-HpCDF</b>	0.25	0.5	1.25	2.5	10	50	200	1000
<b>OCDD</b>	0.5	1.0	2.50	5.0	20	100	400	2000
<b>OCDF</b>	0.5	1.0	2.50	5.0	20	100	400	2000
<b>Labeled</b>								
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	0.05	0.1	0.25	0.5	2.0	10	40	200
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	100	100
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	200	200	200	200	200	200	200	200

\*NOTE: CS0.1, CS0.2, and CS0.5 are optional extensions of the Method 1613 Calibration Curve to extend the MDL and are not required by the method.

EDF-9999-A	<b>Method 1613 Calibration Solutions (1/10 concentration) [CS1-CS5]</b>	Set of 5 x 0.2 mL
EDF-9999-A-3	<b>Method 1613 Calibration Check Standard (1/10 concentration) [CS3]</b>	0.2 mL

EDF-9999-A is a set of calibration solutions with both labeled and unlabeled compounds at 1/10 the concentration of the corresponding calibration solution in EDF-9999.

## U.S. EPA Method 1613 Standard Mixtures

Catalog #	Compound	Amount
EDF-4141	<b>Method 1613 Daily Calibration Plus Window Definer and Isomer Specificity Solution</b>	200 µL in Nonane

Daily Calibration Standards	(ng/mL)	Window Defining Standards	(ng/mL)
2,3,7,8-TCDD	10	1,3,6,8-TCDD	10
2,3,7,8-TCDF	10	1,2,8,9-TCDD	10
1,2,3,7,8-PeCDD	50	1,3,6,8-TCDF	10
1,2,3,7,8-PeCDF	50	1,2,8,9-TCDF	10
2,3,4,7,8-PeCDF	50	1,2,4,6,8/1,2,4,7,9-PeCDD	50
1,2,3,4,7,8-HxCDD	50	1,2,3,8,9-PeCDD	50
1,2,3,6,7,8-HxCDD	50	1,3,4,6,8-PeCDF	50
1,2,3,7,8,9-HxCDD	50	1,2,3,8,9-PeCDF	50
1,2,3,4,7,8-HxCDF	50	1,2,4,6,7,9/1,2,4,6,8,9-HxCDD	50
1,2,3,6,7,8-HxCDF	50	1,2,3,4,6,8-HxCDF	50
1,2,3,7,8,9-HxCDF	50	1,2,3,4,8,9-HxCDF	50
2,3,4,6,7,8-HxCDF	50	1,2,3,4,6,7,9-HpCDD	50
1,2,3,4,6,7,8-HpCDD (W.D.)	50		
1,2,3,4,6,7,8-HpCDF (W.D.)	50		
1,2,3,4,7,8,9-HpCDF (W.D.)	50		
OCDD	100		
OCDF	100		
1,2,3,4-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
2,3,7,8-TCDD ( <sup>37</sup> Cl <sub>4</sub> ,96%)	10		
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	100		
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200		

NOTE: 1,2,3,4,6,7-HxCDD (last eluting HxCDD) not included due to interference with 1,2,3,7,8,9-HxCDD.

TCDD Isomer Specificity Standards	
1,2,3,4-TCDD	10
1,2,3,7/1,2,3,8-TCDD	10
1,2,3,9-TCDD	10

This standard allows three functions:

- Daily MS instrument calibration verification
- Daily TCDD column resolution
- Daily window definition

**(W.D.)** – Window Defining Standard

EDF-6999	<b>Method 1613 Cleanup Standard</b>	7.5 mL in Nonane
EDF-6999-10X	<b>Method 1613 Cleanup Standard (10X concentration)</b>	20 mL in Nonane

Labeled	EDF-6999 (ng/mL)	EDF-6999-10X (ng/mL)
2,3,7,8-TCDD ( <sup>37</sup> Cl <sub>4</sub> ,96%)	0.8	8

EDF-5999	<b>Method 1613 Internal Standard Spiking Solution</b>	0.5 mL in Nonane
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Labeled	
1,2,3,4-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200

## U.S. EPA Method 1613 Standard Mixtures

Catalog #	Compound	Amount
EDF-8999	<b>Method 1613 Labeled Compound Stock Solution</b>	500 µL in Nonane
EDF-8999-4	<b>Method 1613 Labeled Compound Stock Solution</b>	Set of 4 x 500 µL in Nonane

Labeled	(ng/mL)
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	200

EDF-7999	<b>Method 1613 Precision and Recovery Standard Solution</b>	200 µL in Nonane
EDF-7999-10X	<b>Method 1613 Precision and Recovery Standard Solution (10X concentration)</b>	1.2 mL in Nonane

Unlabeled	EDF-7999	EDF-7999-10X
<b>2,3,7,8-TCDD</b>	40	400
<b>2,3,7,8-TCDF</b>	40	400
<b>1,2,3,7,8-PeCDD</b>	200	2000
<b>1,2,3,7,8-PeCDF</b>	200	2000
<b>2,3,4,7,8-PeCDF</b>	200	2000
<b>1,2,3,4,7,8-HxCDD</b>	200	2000
<b>1,2,3,6,7,8-HxCDD</b>	200	2000
<b>1,2,3,7,8,9-HxCDD</b>	200	2000
<b>1,2,3,4,7,8-HxCDF</b>	200	2000
<b>1,2,3,6,7,8-HxCDF</b>	200	2000
<b>1,2,3,7,8,9-HxCDF</b>	200	2000
<b>2,3,4,6,7,8-HxCDF</b>	200	2000
<b>1,2,3,4,6,7,8-HpCDD</b>	200	2000
<b>1,2,3,4,6,7,8-HpCDF</b>	200	2000
<b>1,2,3,4,7,8,9-HpCDF</b>	200	2000
<b>OCDD</b>	400	4000
<b>OCDF</b>	400	4000

<b>NEW</b> EDF-1613-KIT	<b>Method 1613 "Starter Kit"</b>	1 Kit
<i>Contains one each of the following items:</i>		
<b>EDF-9999</b>	<b>Method 1613 Calibration Solutions</b>	
<b>EDF-5999</b>	<b>Method 1613 Internal Standard Spiking Solution</b>	
<b>EDF-7999</b>	<b>Method 1613 Precision and Recovery Standard Solution</b>	
<b>EDF-6999</b>	<b>Method 1613 Cleanup Standard</b>	
<i>Contains two of the following item:</i>		
<b>EDF-8999</b>	<b>Method 1613 Labeled Compound Stock Solution</b>	



U.S. EPA Method 23 Standard Mixtures

Catalog #	Compound	Amount
EDF-4052	<b>Method 23 Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
EDF-4052-1	<b>Method 23 Calibration Solution [CS1]</b>	0.2 mL in Nonane
EDF-4052-2	<b>Method 23 Calibration Solution [CS2]</b>	0.2 mL in Nonane
EDF-4052-3	<b>Method 23 Daily Calibration Check Standard [CS3]</b>	0.2 mL in Nonane
EDF-4052-4	<b>Method 23 Calibration Solution [CS4]</b>	0.2 mL in Nonane
EDF-4052-5	<b>Method 23 Calibration Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in pg/μL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>2,3,7,8-TCDD</b>	0.5	1	5	50	100
<b>2,3,7,8-TCDF</b>	0.5	1	5	50	100
<b>1,2,3,7,8-PeCDD</b>	2.5	5	25	250	500
<b>1,2,3,7,8-PeCDF</b>	2.5	5	25	250	500
<b>2,3,4,7,8-PeCDF</b>	2.5	5	25	250	500
<b>1,2,3,4,7,8-HxCDD</b>	2.5	5	25	250	500
<b>1,2,3,6,7,8-HxCDD</b>	2.5	5	25	250	500
<b>1,2,3,7,8,9-HxCDD</b>	2.5	5	25	250	500
<b>1,2,3,4,7,8-HxCDF</b>	2.5	5	25	250	500
<b>1,2,3,6,7,8-HxCDF</b>	2.5	5	25	250	500
<b>1,2,3,7,8,9-HxCDF</b>	2.5	5	25	250	500
<b>2,3,4,6,7,8-HxCDF</b>	2.5	5	25	250	500
<b>1,2,3,4,6,7,8-HpCDD</b>	2.5	5	25	250	500
<b>1,2,3,4,6,7,8-HpCDF</b>	2.5	5	25	250	500
<b>1,2,3,4,7,8,9-HpCDF</b>	2.5	5	25	250	500
<b>OCDD</b>	5.0	10	50	500	1000
<b>OCDF</b>	5.0	10	50	500	1000
Internal Standards					
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	200	200	200	200	200
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
Surrogate Standards					
<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	0.5	1	5	50	100
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2.5	5	25	250	500
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2.5	5	25	250	500
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2.5	5	25	250	500
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2.5	5	25	250	500
Recovery Standards					
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
Alternate Recovery Standard					
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2.5	5	25	250	500

## U.S. EPA Method 23 Standard Mixtures

Catalog #	Compound	Amount
EDF-4053	<b>Method 23 Internal Standard Stock Solution</b>	1.2 mL in Nonane

Labeled	(pg/ $\mu$ L)
<b>2,3,7,8-TCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,7,8-PeCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,6,7,8-HxCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,4,6,7,8-HpCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>OCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	2000
<b>2,3,7,8-TCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,7,8-PeCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,6,7,8-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,4,6,7,8-HpCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000

EDF-4054	<b>Method 23 Surrogate Standard Stock Solution</b>	1.2 mL in Nonane
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Labeled	
<b>2,3,7,8-TCDD (<math>^{37}\text{Cl}_4,96\%</math>)</b>	1000
<b>1,2,3,4,7,8-HxCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>2,3,4,7,8-PeCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,4,7,8-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000
<b>1,2,3,4,7,8,9-HpCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000

EDF-4055	<b>Method 23 Recovery Standard Stock Solution</b>	1.2 mL in Nonane
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Labeled	
<b>1,2,3,4-TCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	500
<b>1,2,3,7,8,9-HxCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	500

EDF-5189	<b>Method 23 Alternate Recovery Stock Solution</b>	1.2 mL in Nonane
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Labeled	
<b>1,2,3,7,8,9-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	1000

## U.S. EPA Method 8290 Standard Mixtures

Catalog #	Compound	Amount
EDF-5006	<b>Method 8290 Calibration Solutions [HRCC1-HRCC5]</b>	Set of 5 x 0.2 mL in Nonane
EDF-5006-1	<b>Method 8290 Calibration Solution [HRCC1]</b>	0.2 mL in Nonane
EDF-5006-2	<b>Method 8290 Calibration Solution [HRCC2]</b>	0.2 mL in Nonane
EDF-5006-3	<b>Method 8290 Continuing Calibration Check Standard [HRCC3]</b>	0.2 mL in Nonane
EDF-5006-4	<b>Method 8290 Calibration Solution [HRCC4]</b>	0.2 mL in Nonane
EDF-5006-5	<b>Method 8290 Calibration Solution [HRCC5]</b>	0.2 mL in Nonane

All concentrations are in pg/μL (ppb)

Unlabeled	HRCC1	HRCC2	HRCC3	HRCC4	HRCC5
<b>2,3,7,8-TCDD</b>	1.0	2.5	10	50	200
<b>2,3,7,8-TCDF</b>	1.0	2.5	10	50	200
<b>1,2,3,7,8-PeCDD</b>	2.5	6.25	25	125	500
<b>1,2,3,7,8-PeCDF</b>	2.5	6.25	25	125	500
<b>2,3,4,7,8-PeCDF</b>	2.5	6.25	25	125	500
<b>1,2,3,4,7,8-HxCDD</b>	2.5	6.25	25	125	500
<b>1,2,3,6,7,8-HxCDD</b>	2.5	6.25	25	125	500
<b>1,2,3,7,8,9-HxCDD</b>	2.5	6.25	25	125	500
<b>1,2,3,4,7,8-HxCDF</b>	2.5	6.25	25	125	500
<b>1,2,3,6,7,8-HxCDF</b>	2.5	6.25	25	125	500
<b>1,2,3,7,8,9-HxCDF</b>	2.5	6.25	25	125	500
<b>2,3,4,6,7,8-HxCDF</b>	2.5	6.25	25	125	500
<b>1,2,3,4,6,7,8-HpCDD</b>	2.5	6.25	25	125	500
<b>1,2,3,4,6,7,8-HpCDF</b>	2.5	6.25	25	125	500
<b>1,2,3,4,7,8,9-HpCDF</b>	2.5	6.25	25	125	500
<b>OCDD</b>	5.0	12.5	50	250	1000
<b>OCDF</b>	5.0	12.5	50	250	1000
Internal Standards					
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	125	125	125	125	125
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	125	125	125	125	125
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	125	125	125	125	125
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	125	125	125	125	125
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	250	250	250	250	250
Recovery Standards					
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	125	125	125	125	125

## U.S. EPA Method 8290 Standard Mixtures

Catalog #	Compound	Amount
EDF-5004	<b>Method 8290 Recovery Standard Solution</b>	1.2 mL in Nonane
	Labeled	(pg/ $\mu$ L)
	<b>1,2,3,4-TCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	100
	<b>1,2,3,7,8,9-HxCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	250
EDF-5005	<b>Method 8290 Sample Fortification Solution</b>	1.2 mL in Nonane
	Labeled	
	<b>2,3,7,8-TCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	100
	<b>2,3,7,8-TCDF (<math>^{13}\text{C}_{12}</math>,99%)</b>	100
	<b>1,2,3,7,8-PeCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	100
	<b>1,2,3,7,8-PeCDF (<math>^{13}\text{C}_{12}</math>,99%)</b>	100
	<b>1,2,3,4,7,8-HxCDF (<math>^{13}\text{C}_{12}</math>,99%)</b>	250
	<b>1,2,3,6,7,8-HxCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	250
	<b>1,2,3,4,6,7,8-HpCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	250
	<b>1,2,3,4,6,7,8-HpCDF (<math>^{13}\text{C}_{12}</math>,99%)</b>	250
	<b>OCDD (<math>^{13}\text{C}_{12}</math>,99%)</b>	500
EDF-5008	<b>Method 8290 Matrix Spiking Solution</b>	1.2 mL in Nonane
<b>NEW</b> EDF-5008-50	<b>Method 8290 Matrix Spiking Solution (1:50 dilution)</b>	0.1 mL in Nonane
	Unlabeled	EDF-5008 EDF-5008-50
	<b>2,3,7,8-TCDD</b>	100 2
	<b>2,3,7,8-TCDF</b>	100 2
	<b>1,2,3,7,8-PeCDD</b>	250 5
	<b>1,2,3,7,8-PeCDF</b>	250 5
	<b>2,3,4,7,8-PeCDF</b>	250 5
	<b>1,2,3,4,7,8-HxCDD</b>	250 5
	<b>1,2,3,4,7,8-HxCDF</b>	250 5
	<b>1,2,3,6,7,8-HxCDD</b>	250 5
	<b>1,2,3,6,7,8-HxCDF</b>	250 5
	<b>1,2,3,7,8,9-HxCDD</b>	250 5
	<b>1,2,3,7,8,9-HxCDF</b>	250 5
	<b>2,3,4,6,7,8-HxCDF</b>	250 5
	<b>1,2,3,4,6,7,8-HpCDD</b>	250 5
	<b>1,2,3,4,6,7,8-HpCDF</b>	250 5
	<b>1,2,3,4,7,8,9-HpCDF</b>	250 5
	<b>OCDD</b>	500 10
	<b>OCDF</b>	500 10

## U.S. EPA Method 8280 Standard Mixtures

Catalog #	Compound	Amount
EDF-2519-A	<b>Method 8280 Calibration Solutions [CC1-CC5]</b>	Set of 5 x 0.2 mL in Nonane
EDF-2519-1	<b>Method 8280 Calibration Solution [CC1]</b>	0.2 mL in Nonane
EDF-2519-2	<b>Method 8280 Calibration Solution [CC2]</b>	0.2 mL in Nonane
EDF-2519-3	<b>Method 8280 Calibration and Verification Solution [CC3]</b>	0.2 mL in Nonane
EDF-2519-4	<b>Method 8280 Calibration Solution [CC4]</b>	0.2 mL in Nonane
EDF-2519-5	<b>Method 8280 Calibration Solution [CC5]</b>	0.2 mL in Nonane

*All concentrations are in ng/μL (ppm)*

Unlabeled	CC1	CC2	CC3	CC4	CC5
<b>2,3,7,8-TCDD</b>	0.1	0.25	0.5	1.0	2.0
<b>2,3,7,8-TCDF</b>	0.1	0.25	0.5	1.0	2.0
<b>1,2,3,7,8-PeCDF</b>	0.1	0.25	0.5	1.0	2.0
<b>1,2,3,7,8-PeCDD</b>	0.1	0.25	0.5	1.0	2.0
<b>2,3,4,7,8-PeCDF</b>	—	—	0.5	—	—
<b>1,2,3,4,7,8-HxCDF</b>	—	—	1.25	—	—
<b>1,2,3,6,7,8-HxCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,4,7,8-HxCDD</b>	—	—	1.25	—	—
<b>1,2,3,6,7,8-HxCDD</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,7,8,9-HxCDD</b>	—	—	1.25	—	—
<b>2,3,4,6,7,8-HxCDF</b>	—	—	1.25	—	—
<b>1,2,3,7,8,9-HxCDF</b>	—	—	1.25	—	—
<b>1,2,3,4,7,8,9-HpCDF</b>	—	—	1.25	—	—
<b>1,2,3,4,6,7,8-HpCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,4,6,7,8-HpCDD</b>	0.25	0.625	1.25	2.5	5.0
<b>OCDD</b>	0.5	1.25	2.5	5.0	10.0
<b>OCDF</b>	0.5	1.25	2.5	5.0	10.0
Labeled					
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1.0	1.0	1.0	1.0	1.0
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1.0	1.0	1.0	1.0	1.0
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	—	—	0.25	—	—

## U.S. EPA Method 8280 Standard Mixtures

Catalog #	Compound	Amount
EDF-2520	<b>Method 8280 Internal Standard Solution</b>	1.2 mL in Nonane
	Labeled	(ng/μL)
	<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10
	<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10
ED-2521	<b>Method 8280 Recovery Standard Solution</b>	1.2 mL in Nonane
	Labeled	
	<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
ED-2522	<b>Method 8280 Cleanup Standard Solution</b>	1.2 mL in Nonane
	Labeled	
	<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	5
EDF-2523	<b>Method 8280 Matrix Spiking Solution</b>	1.2 mL in Nonane
	Unlabeled	
	<b>2,3,7,8-TCDD</b>	2.5
	<b>2,3,7,8-TCDF</b>	2.5
	<b>1,2,3,7,8-PeCDF</b>	6.25
	<b>1,2,3,7,8-PeCDD</b>	6.25
	<b>1,2,3,6,7,8-HxCDF</b>	6.25
	<b>1,2,3,6,7,8-HxCDD</b>	6.25
	<b>1,2,3,4,6,7,8-HpCDF</b>	6.25
	<b>1,2,3,4,6,7,8-HpCDD</b>	6.25
	<b>OCDD</b>	12.5
	<b>OCDF</b>	12.5
EDF-2681	<b>Supplemental Internal Standard Solution</b> (Not required by U.S. EPA Method 8280)	1.2 mL in Nonane
	Labeled	
	<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	5
	<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10
	<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10

## U.S. EPA Method 8280 Standard Mixtures

Catalog #	Compound	Amount
EDF-4095	<b>Modified Method 8280 Calibration Solutions [CC1-CC5]</b> (All 17 toxic congeners at all five levels)	Set of 5 x 0.2 mL in Nonane
EDF-4095-1	<b>Modified Method 8280 Calibration Standard [CC1]</b>	0.2 mL in Nonane
EDF-4095-2	<b>Modified Method 8280 Calibration Standard [CC2]</b>	0.2 mL in Nonane
EDF-4095-3	<b>Modified Method 8280 Calibration Standard [CC3]</b>	0.2 mL in Nonane
EDF-4095-4	<b>Modified Method 8280 Calibration Standard [CC4]</b>	0.2 mL in Nonane
EDF-4095-5	<b>Modified Method 8280 Calibration Standard [CC5]</b>	0.2 mL in Nonane

*All concentrations are in ng/μL (ppm)*

Unlabeled	CC1	CC2	CC3	CC4	CC5
<b>2,3,7,8-TCDD</b>	0.1	0.25	0.5	1.0	2.0
<b>2,3,7,8-TCDF</b>	0.1	0.25	0.5	1.0	2.0
<b>1,2,3,7,8-PeCDD</b>	0.1	0.25	0.5	1.0	2.0
<b>1,2,3,7,8-PeCDF</b>	0.1	0.25	0.5	1.0	2.0
<b>2,3,4,7,8-PeCDF</b>	0.1	0.25	0.5	1.0	2.0
<b>1,2,3,4,7,8-HxCDD</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,4,7,8-HxCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,6,7,8-HxCDD</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,6,7,8-HxCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,7,8,9-HxCDD</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,7,8,9-HxCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>2,3,4,6,7,8-HxCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,4,6,7,8-HpCDD</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,4,6,7,8-HeptaCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>1,2,3,4,7,8,9-HeptaCDF</b>	0.25	0.625	1.25	2.5	5.0
<b>OCDD</b>	0.5	1.25	2.5	5.0	10.0
<b>OCDF</b>	0.5	1.25	2.5	5.0	10.0
<b>Labeled</b>					
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	0.25	0.25	0.25	0.25	0.25
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	0.5	0.5	0.5	0.5
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1.0	1.0	1.0	1.0	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1.0	1.0	1.0	1.0	1.0

EDF-4096	<b>Modified Method 8280 Matrix Spiking Solution</b> (All 17 toxic congeners)	1.2 mL in Nonane
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Unlabeled	(ng/μL)
<b>2,3,7,8-TCDD</b>	2.5
<b>2,3,7,8-TCDF</b>	2.5
<b>1,2,3,7,8-PeCDD</b>	6.25
<b>1,2,3,7,8-PeCDF</b>	6.25
<b>2,3,4,7,8-PeCDF</b>	6.25
<b>1,2,3,4,7,8-HxCDD</b>	6.25
<b>1,2,3,4,7,8-HxCDF</b>	6.25
<b>1,2,3,6,7,8-HxCDD</b>	6.25
<b>1,2,3,6,7,8-HxCDF</b>	6.25
<b>1,2,3,7,8,9-HxCDD</b>	6.25
<b>1,2,3,7,8,9-HxCDF</b>	6.25
<b>2,3,4,6,7,8-HxCDF</b>	6.25
<b>1,2,3,4,6,7,8-HpCDD</b>	6.25
<b>1,2,3,4,6,7,8-HpCDF</b>	6.25
<b>1,2,3,4,7,8,9-HpCDF</b>	6.25
<b>OCDD</b>	12.5
<b>OCDF</b>	12.5



JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5187	<b>JIS Dioxin/Furan Calibration Solutions [ST1-ST5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EDF-5187-ST1	<b>JIS Dioxin/Furan Calibration Solution [ST1]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5187-ST2	<b>JIS Dioxin/Furan Calibration Solution [ST2]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5187-ST3	<b>JIS Dioxin/Furan Calibration Solution [ST3]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5187-ST4	<b>JIS Dioxin/Furan Calibration Solution [ST4]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5187-ST5	<b>JIS Dioxin/Furan Calibration Solution [ST5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	ST1	ST2	ST3	ST4	ST5
<b>2,3,7,8-TCDD</b>	0.2	1	5	20	100
<b>1,2,3,7,8-PeCDD</b>	0.2	1	5	20	100
<b>1,2,3,4,7,8-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,6,7,8-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,7,8,9-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,4,6,7,8-HpCDD</b>	0.4	2	10	40	200
<b>OCDD</b>	1	5	25	100	500
<b>2,3,7,8-TCDF</b>	0.2	1	5	20	100
<b>1,2,3,7,8-PeCDF</b>	0.2	1	5	20	100
<b>2,3,4,7,8-PeCDF</b>	0.2	1	5	20	100
<b>1,2,3,4,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,6,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,7,8,9-HxCDF</b>	0.4	2	10	40	200
<b>2,3,4,6,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,6,7,8-HpCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,7,8,9-HpCDF</b>	0.4	2	10	40	200
<b>OCDF</b>	1	5	25	100	500
Labeled					
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>, 99%)</b>	10	10	10	10	10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20

## JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-4964-A	<b>JIS Dioxin/Furan Type 1 Cleanup Standard Solution</b>	0.5 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	4000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	4000

EDF-4965-A	<b>JIS Dioxin/Furan Type 1 and 2 Syringe Standard Solution</b>	0.5 mL in Nonane
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Labeled	
1,2,3,4-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000

EDF-4967	<b>JIS Dioxin/Furan Type 2 Cleanup Standard Solution</b>	1.2 mL in Nonane
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EDF-4967-A	<b>JIS Dioxin/Furan Type 2 Cleanup Standard Solution</b>	0.5 mL in Nonane
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Labeled	EDF-4967	EDF-4967-A
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	10	2000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20	4000

EDF-4974-A	<b>JIS Wastewater Dioxin/Furan Type 1 Cleanup Standard Solution</b>	0.2 mL in Nonane
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Labeled	
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	4000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	4000

JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-5032	<b>JIS Dioxin/Furan Calibration Solutions [STD1-STD5] – low concentration</b>	Set of 5 x 0.2 mL in Nonane
EDF-5032-1	<b>JIS Dioxin/Furan Calibration Solution [STD1] – low concentration</b>	0.2 mL in Nonane
EDF-5032-2	<b>JIS Dioxin/Furan Calibration Solution [STD2] – low concentration</b>	0.2 mL in Nonane
EDF-5032-3	<b>JIS Dioxin/Furan Calibration Solution [STD3] – low concentration</b>	0.2 mL in Nonane
EDF-5032-4	<b>JIS Dioxin/Furan Calibration Solution [STD4] – low concentration</b>	0.2 mL in Nonane
EDF-5032-5	<b>JIS Dioxin/Furan Calibration Solution [STD5] – low concentration</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	STD1	STD2	STD3	STD4	STD5
<b>2,3,7,8-TCDD</b>	0.4	2	10	40	200
<b>1,2,3,7,8-PeCDD</b>	0.4	2	10	40	200
<b>1,2,3,4,7,8-HxCDD</b>	1	5	25	100	500
<b>1,2,3,6,7,8-HxCDD</b>	1	5	25	100	500
<b>1,2,3,7,8,9-HxCDD</b>	1	5	25	100	500
<b>1,2,3,4,6,7,8-HpCDD</b>	1	5	25	100	500
<b>OCDD</b>	2	10	50	200	1000
<b>2,3,7,8-TCDF</b>	0.4	2	10	40	200
<b>1,2,3,7,8-PeCDF</b>	0.4	2	10	40	200
<b>2,3,4,7,8-PeCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,7,8-HxCDF</b>	1	5	25	100	500
<b>1,2,3,6,7,8-HxCDF</b>	1	5	25	100	500
<b>1,2,3,7,8,9-HxCDF</b>	1	5	25	100	500
<b>2,3,4,6,7,8-HxCDF</b>	1	5	25	100	500
<b>1,2,3,4,6,7,8-HpCDF</b>	1	5	25	100	500
<b>1,2,3,4,7,8,9-HpCDF</b>	1	5	25	100	500
<b>OCDF</b>	2	10	50	200	1000
<b>Labeled</b>					
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20

European Air Method EN-1948 Standard Mixtures

Catalog #	Compound	Amount
EDF-4947	<b>EN-1948 Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
EDF-4947-CS1	<b>EN-1948 Calibration Solution [CS1]</b>	0.2 mL in Nonane
EDF-4947-CS2	<b>EN-1948 Calibration Solution [CS2]</b>	0.2 mL in Nonane
EDF-4947-CS3	<b>EN-1948 Calibration Solution [CS3]</b>	0.2 mL in Nonane
EDF-4947-CS4	<b>EN-1948 Calibration Solution [CS4]</b>	0.2 mL in Nonane
EDF-4947-CS5	<b>EN-1948 Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in pg/μL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>2,3,7,8-TCDD</b>	0.5	2.0	10.0	40.0	200
<b>2,3,7,8-TCDF</b>	0.5	2.0	10.0	40.0	200
<b>1,2,3,7,8-PeCDD</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,7,8-PeCDF</b>	2.5	10.0	50.0	200	1000
<b>2,3,4,7,8-PeCDF</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,4,7,8-HxCDD</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,6,7,8-HxCDD</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,7,8,9-HxCDD</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,4,7,8-HxCDF</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,6,7,8-HxCDF</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,7,8,9-HxCDF</b>	2.5	10.0	50.0	200	1000
<b>2,3,4,6,7,8-HxCDF</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,4,6,7,8-HpCDD</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,4,6,7,8-HpCDF</b>	2.5	10.0	50.0	200	1000
<b>1,2,3,4,7,8,9-HpCDF</b>	2.5	10.0	50.0	200	1000
<b>OCDD</b>	5.0	20.0	100	400	2000
<b>OCDF</b>	5.0	20.0	100	400	2000
Labeled					
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	200	200	200	200	200
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200	200	200	200	200

European Air Method EN-1948 Standard Mixtures

Catalog #	Compound	Amount
EF-4138	<b>EN-1948 Sampling Standard Solution</b>	1.2 mL in Nonane
<b>NEW</b> EF-4138-10	<b>EN-1948 Sampling Standard Solution</b>	2 x 5 mL in Nonane

Labeled	(pg/ $\mu$ L)
<b>1,2,3,7,8-PeCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,7,8,9-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,4,7,8,9-HpCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	200

EDF-4139	<b>EN-1948 Extraction Standard Solution</b>	1.2 mL in Nonane
<b>NEW</b> EDF-4139-10	<b>EN-1948 Extraction Standard Solution</b>	2 x 5 mL in Nonane

Labeled	
<b>2,3,7,8-TCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>2,3,7,8-TCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,7,8-PeCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>2,3,4,7,8-PeCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,4,7,8-HxCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,4,7,8-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,6,7,8-HxCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,6,7,8-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>2,3,4,6,7,8-HxCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	100
<b>1,2,3,4,6,7,8-HpCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	200
<b>1,2,3,4,6,7,8-HpCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	200
<b>OCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	200
<b>OCDF (<math>^{13}\text{C}_{12},99\%</math>)</b>	200

ED-4140	<b>EN-1948 Syringe Standard Solution</b>	1.2 mL in Nonane
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Labeled	
<b>1,2,3,4-TCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	400
<b>1,2,3,7,8,9-HxCDD (<math>^{13}\text{C}_{12},99\%</math>)</b>	400

EDF-4175	<b>EN-1948 Native Stock Response Factor Solution</b>	0.5 mL in Nonane
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Unlabeled	
<b>2,3,7,8-TCDD</b>	1000
<b>2,3,7,8-TCDF</b>	1000
<b>1,2,3,7,8-PeCDD</b>	1000
<b>1,2,3,7,8-PeCDF</b>	1000
<b>2,3,4,7,8-PeCDF</b>	1000
<b>1,2,3,4,7,8-HxCDD</b>	1000
<b>1,2,3,6,7,8-HxCDD</b>	1000
<b>1,2,3,7,8,9-HxCDD</b>	4000
<b>1,2,3,4,7,8-HxCDF</b>	1000
<b>1,2,3,6,7,8-HxCDF</b>	1000
<b>1,2,3,7,8,9-HxCDF</b>	1000
<b>2,3,4,6,7,8-HxCDF</b>	1000
<b>1,2,3,4,6,7,8-HpCDD</b>	2000
<b>1,2,3,4,6,7,8-HpCDF</b>	2000
<b>1,2,3,4,7,8,9-HpCDF</b>	2000
<b>OCDD</b>	2000
<b>OCDF</b>	2000

## Performance Evaluation Reference Materials

### Fish Tissue, Soil, and Sediment Reference Materials

In May of 2003, environmental laboratories around the world participated in an interlaboratory study conducted by CIL and Cerilliant. The purpose of this study was to characterize dioxin, PCB, pesticide, and other organic contaminant levels in soil, sediment, and fish tissue reference materials.

The objectives of this interlaboratory study were to quantitate the levels of a wide variety of environmental contaminants in two new matrices: a sample taken from river sediment in an area known to have PCB contamination and a soil sample taken from a location where no known contamination had occurred. The three Fish Performance Evaluation samples were re-evaluated with new consensus values added to the existing consensus values. The existing analyte list has been expanded to include additional Dioxins, Furans, and PCBs. Consensus values for other analyte groups such as Brominated Flame Retardants, Polyaromatic Hydrocarbons, Pesticides, and other Priority Pollutants were generated.

Catalog #	Compound	Amount
EDF-5183	<b>Natural Matrix Reference Material (Soil)</b>	10 g
EDF-5184	<b>Heavily Contaminated Sediment Reference Material</b>	10 g
EDF-2524	<b>Clean Natural Matrix Reference Material (Fish)</b>	10 g
EDF-2525	<b>Contaminated Natural Matrix Reference Material (Fish)</b>	10 g
EDF-2526	<b>Fortified Natural Matrix Reference Material (Fish)</b>	10 g
EDF-4023	<b>Set of 3 Fish [1 each of EDF-2524, EDF-2525, EDF-2526]</b>	3 x 10 g

#### Participating Laboratories

AgriQuality New Zealand LTD.	New Zealand	GSF – National Research Center for Environment & Health	Germany
Alta Analytical Laboratory (now Vista Analytical)	USA	I.N.E.R.I.S.	France
AnalyCen Nordic AB	Sweden	Instituto Salud Carlos III	Spain
Analytical Solutions	Brazil	Institut Pasteur de Lille, Laboratoire d'Etudes de Trace Organiques	France
Anfaco-Cecopesca	Spain	Institute of Ecology & Evolution of Russian Academy of Science (IPEE-RAS)	Russia
Australian Government Analytical Laboratory (AGAL)	Australia	Institute of Public Health (IPH)	Belgium
Axys Analytical Services	Canada	LABERCA	France
CARSO	France	Maxxam Analytics, Inc.	Canada
Center for Environmental Safety and Health Technology Development/ITRI	Taiwan	Mississippi State Chemical Laboratory	USA
Centro Oceanografico de Vigo	Spain	National Center for Scientific Research "Demokritos"	Greece
CERVA-CODA-VAR	Belgium	National Institute of Nutrition and Food Safety	China
Chinese Academy of Sciences	China	National Public Health Institute	Finland
Ciba Specialty Chemical, Inc.	Switzerland	Norwegian Institute for Air Research (NILU)	Norway
CIEMAT (Energy, Environmental & Technological Research Center)	Spain	Oekometric GmbH	Germany
Clean Harbors Environmental Services	USA	Ontario Ministry of Environment	Canada
Columbia Analytical Services, Inc.	USA	Pace Analytical Services, Inc.	USA
Department of Toxic Substance Control	USA	PSC Analytical Services (now Maxxam Analytics)	Canada
Dow Chemical Company	USA	Research & Productivity Council (RPC)	Canada
ECOCEM, A.S.	Czech Republic	RIKILT Institute for Food Safety	The Netherlands
Environmental Protection Authority Victoria	Australia	Severn Trent Laboratories (now TestAmerica)	USA
Enviro-Test Laboratories (now ALS Canada)	Canada	Shenzhen POPs Laboratory	China
Freshwater Institute	Canada	Triangle Laboratories, Inc.	USA
Frontier Analytical Laboratory	USA	UFR Sciences	France
GfA (Gesellschaft für Arbeitsplatz und Umweltanalytik) mbH	Germany	Worthies Engineering Consultants Corporation	Taiwan
The Government Laboratory, Government of Hong Kong	China		

## Performance Evaluation Reference Materials

### Fly Ash Reference Material

In 2007, Cambridge Isotope Laboratories performed an international interlaboratory study on Fly Ash Reference Material purchased from Consorzio INCA in Italy. The ash comes from the filter of a municipal waste incinerator in northern Italy, and has been analyzed and given consensus values for numerous dioxin, furan, and PCB congeners. This sample is meant to be used to evaluate the performance of an analytical laboratory for the analytes given.

Catalog #	Compound	Amount
<b>NEW</b> EDF-5369	<b>Fly Ash Reference Material</b>	10 g

#### Participating Laboratories

AgriQuality Limited – Wellington Laboratory	New Zealand	Murata Keisokuki Service	Japan
AIKEN	Japan	Nagasaki Food Hygiene Association	Japan
ALS Czech Republic s.r.o.	Czech Republic	National Central University Graduate Institute	
ARPAT	Italy	of Environmental Engineering	Taiwan
Cheng-Shiu University	Taiwan	Niigata Kankyo Bunseki Center	Japan
China Steel Cooperation	Taiwan	Nippon Steel Techno Research	Japan
Clean Harbors Environmental Services	USA	Nittech Research Corporation	Japan
Dalian Institute of Chemical Physics, CAS	China	Oekometric GmbH	Germany
The Dow Chemical Company	USA	RCLAB Srl	Italy
Environmental Science Laboratory	Japan	SGS Institut Fresenius GmbH Bayreuth	Germany
Environment Canada	Ontario	Shimadzu Techno-Research, Inc.	Japan
Hiyoshi Corporation	Japan	Sogo Mizu Kenkyusho	Japan
Hokuriku Kankyo Kagaku Kenkyusho	Japan	Sumika Chemical Analysis Service	Japan
Ishikawaken Prefectural Institute of Public Health		Sun Dream Environmental Technology Corporation	Taiwan
and Environmental Services	Japan	Teijin Eco-Science Limited	Japan
Joetsu Kankyo Kagaku Center	Japan	Term Corporation	Japan
Kankyo Techno Co., LTD	Japan	Tokyo Kensa Center Co., LTD	Japan
KOBELCO Research Institute, Inc.	Japan	Tokyo Technical Service Co., LTD	Japan
Maxxam Analytics, Inc.	Canada	Toyo Giken Corporation	Japan
Miyagi Prefectural Institute of Public Health		Yunitika Environmental Technical Center	Japan
and Environment	Japan		

### Cod Liver Oil Reference Materials

In 2010, Cambridge Isotope Laboratories organized an international interlaboratory study on Cod Liver Oil Reference Materials purchased from TestAmerica Laboratories in TN, USA. Commercially available Cod Liver Oil was spiked with known amounts of Dioxins, Furans, and PCBs for the Fortified Cod Liver Oil reference material. A separate standard with no spike was also prepared as a blank. These samples are meant to be used to evaluate the performance of an analytical laboratory for the analytes given.

<b>NEW</b> EDF-5462	<b>Fortified Cod Liver Oil Reference Material</b>	10 g
<b>NEW</b> EDF-5463	<b>Cod Liver Oil Reference Material</b>	10 g



## Dioxin and Furan plus PCB Standard Mixtures

Catalog #	Compound	Amount
EDF-4143	<b>Calibration Curve for Dioxin, Furan and PCB in Tissue [CS1-CS9]</b>	Set of 9 x 0.2 mL in Nonane

NOTE: Individual calibration levels are available upon request.

Unlabeled	IUPAC	<i>All concentrations are in ng/mL (ppb)</i>								
		CDC1	CDC2	CDC3	CDC4	CDC5	CDC6	CDC7	CDC8	CDC9
<b>2,3,7,8-TCDD</b>		0.04	0.10	0.20	1.00	2.00	7.00	20.0	35.0	50.0
<b>2,3,7,8-TCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>1,2,3,7,8-PeCDD</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	10.0	20.0
<b>1,2,3,7,8-PeCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>2,3,4,7,8-PeCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>1,2,3,4,7,8-HxCDD</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	10.0	20.0
<b>1,2,3,4,7,8-HxCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>1,2,3,6,7,8-HxCDD</b>		0.10	0.25	0.50	1.25	2.50	5.00	12.5	25.0	50.0
<b>1,2,3,6,7,8-HxCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>1,2,3,7,8,9-HxCDD</b>		0.20	0.50	1.00	2.00	5.00	10.0	20.0	25.0	30.0
<b>1,2,3,7,8,9-HxCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>2,3,4,6,7,8-HxCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>1,2,3,4,6,7,8-HpCDD</b>		1.00	2.00	5.00	10.0	20.0	25.0	50.0	100	200
<b>1,2,3,4,6,7,8-HpCDF</b>		0.20	0.50	1.00	2.00	5.00	10.0	20.0	25.0	30.0
<b>1,2,3,4,6,7,9-HpCDD</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	10.0	20.0
<b>1,2,3,4,7,8,9-HpCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>OCDD</b>		10.0	20.0	50.0	100	200	300	400	500	600
<b>OCDF</b>		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
Labeled										
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25	25	25	25	25	25	25	25	25
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		50	50	50	50	50	50	50	50	50
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		50	50	50	50	50	50	50	50	50
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		50	50	50	50	50	50	50	50	50
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		50	50	50	50	50	50	50	50	50
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		50	50	50	50	50	50	50	50	50
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		120	120	120	120	120	120	120	120	120
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		125	125	125	125	125	125	125	125	125
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		120	120	120	120	120	120	120	120	120
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		125	125	125	125	125	125	125	125	125
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		120	120	120	120	120	120	120	120	120
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		125	125	125	125	125	125	125	125	125
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		125	125	125	125	125	125	125	125	125
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		120	120	120	120	120	120	120	120	120
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		125	125	125	125	125	125	125	125	125
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		250	250	250	250	250	250	250	250	250
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		250	250	250	250	250	250	250	250	250
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	48	48	48	48	48	48	48	48	48
<b>3,3',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>80</b>	48	48	48	48	48	48	48	48	48
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	48	48	48	48	48	48	48	48	48
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	72	72	72	72	72	72	72	72	72
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	96	96	96	96	96	96	96	96	96

## Dioxin and Furan plus PCB Standard Mixtures

Catalog #	Compound	Amount
EDF-4144	<b>Internal Standard for Dioxin, Furan and PCB in Tissue</b>	750 µL in Nonane

Labeled	IUPAC	(ng/mL)
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		25.0
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		25.0
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		25.0
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		25.0
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		25.0
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		60.0
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		62.5
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		60.0
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		62.5
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		60.0
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		62.5
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		62.5
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		60.0
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		62.5
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		125
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		125
3,3',4,4'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>77</b>	24.0
3,4,4',5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>81</b>	24.0
3,3',4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>126</b>	36.0
3,3',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>169</b>	48.0

<b>NEW</b> EDF-4144-B	<b>Internal Standard for Dioxin, Furan and PCB in Tissue</b>	0.5 mL in 97.5% Methanol/2.5% Nonane
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Labeled		
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		2.5
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		2.5
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		6
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		6
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		6
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		6
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)		12.5
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		2.5
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		2.5
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		2.5
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		6.25
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		6.25
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		6.25
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		6.25
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		6.25
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)		12.5
3,3',4,4'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>77</b>	2.4
3,4,4',5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>81</b>	2.4
3,3',4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>126</b>	3.6
3,3',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>169</b>	4.8

## Dioxin and Furan plus PCB Standard Mixtures

Catalog #	Compound	Amount
EDF-4145	<b>Recovery Standard for Dioxin, Furan and PCB in Tissue</b>	750 µL in Nonane

Labeled	IUPAC	(ng/mL)
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25.0
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		62.5
<b>3,3',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>80</b>	48.0

<b>NEW</b> EDF-4145-A	<b>Recovery Standard for Dioxin, Furan and PCB in Tissue</b>	0.5 mL in Nonane
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Labeled		
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25.0
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		62.5
<b>3,3',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>80</b>	48.0
<b>2,4,6,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		20.0

<b>NEW</b> ES-5321	<b>Multi-Analyte Recovery Spiking Standard</b>	10 mL in 88% Hexane/ 2% Dodecane/10% Nonane
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Labeled		
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		2.5
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	10.0
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	7.5
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b>	7.5

## Dioxin and Furan plus PCB Standard Mixtures

Catalog #	Compound	Amount
EDF-5086-A	<b>Alternate PCB and Dioxin/Furan Calibration Verification Standard</b>	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		20
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		20
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	10
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10

Dioxin and Furan plus PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5393	<b>Dioxin Cleanup Spike</b>	1.2 mL in Nonane
	Labeled	IUPAC (ng/mL)
	2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,3,6,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	40
	2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,3,6,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	40
	3,4,4',5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>81</b> 20
	3,3',4,4'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>77</b> 20
	3,3',4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>126</b> 20
	3,3',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>169</b> 20
	2',3,4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>123</b> 20
	2,3',4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>118</b> 20
	2,3,3',4,4'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>105</b> 20
	2,3,4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>114</b> 20
	2,3',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>167</b> 20
	2,3,3',4,4',5-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>156</b> 20
	2,3,3',4,4',5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>157</b> 20
	2,3,3',4,4',5,5'-HeptaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>189</b> 20
	2,2',3,3',4,4',5-HeptaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>170</b> 20
	2,2',3,4,4',5,5'-HeptaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>180</b> 20
<b>NEW</b> EDF-5395	<b>Dioxin Sampling Spike</b>	1.2 mL in Nonane
	Labeled	
	1,2,3,4-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	50
	1,2,3,4-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	50
	3,3',4,5'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>79</b> 50
<b>NEW</b> EF-5394	<b>Dioxin Syringe Spike</b>	1.2 mL in Nonane
	Labeled	
	1,2,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,6,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
	1,2,3,4,6,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	20
<b>NEW</b> EDF-5338	<b>Dioxin/Furan Syringe Spike</b>	1.2 mL in Nonane
	Labeled	
	1,2,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
	1,2,3,4,6-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
	1,2,3,4,6,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
	1,2,3,4,6,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000

### Non-2,3,7,8-Containing Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5392	<b>Dioxin/Furan Calibration Solutions [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane
<b>NEW</b> EDF-5392-1	<b>Dioxin/Furan Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5392-2	<b>Dioxin/Furan Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5392-3	<b>Dioxin/Furan Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5392-4	<b>Dioxin/Furan Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5392-5	<b>Dioxin/Furan Calibration Solution [CS5]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5392-6	<b>Dioxin/Furan Calibration Solution [CS6]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5	CS6
<b>2,3,7,8-TCDD</b>	0.1	0.5	2	10	50	200
<b>1,3,6,8-TCDD</b>	0.1	0.5	2	10	50	200
<b>1,3,7,9-TCDD</b>	0.1	0.5	2	10	50	200
<b>1,2,8,9-TCDD</b>	0.1	0.5	2	10	50	200
<b>1,2,3,7,8-PeCDD</b>	0.1	0.5	2	10	50	200
<b>1,2,3,4,7,8-HxCDD</b>	0.2	1	4	20	100	400
<b>1,2,3,6,7,8-HxCDD</b>	0.2	1	4	20	100	400
<b>1,2,3,7,8,9-HxCDD</b>	0.2	1	4	20	100	400
<b>1,2,3,4,6,7,8-HpCDD</b>	0.2	1	4	20	100	400
<b>OCDD</b>	0.5	2.5	10	50	250	1000
<b>2,3,7,8-TCDF</b>	0.1	0.5	2	10	50	200
<b>1,3,6,8-TCDF</b>	0.1	0.5	2	10	50	200
<b>1,2,7,8-TCDF</b>	0.1	0.5	2	10	50	200
<b>1,2,8,9-TCDF</b>	0.1	0.5	2	10	50	200
<b>1,2,3,7,8-PeCDF</b>	0.1	0.5	2	10	50	200
<b>2,3,4,7,8-PeCDF</b>	0.1	0.5	2	10	50	200
<b>1,2,3,4,7,8-HxCDF</b>	0.2	1	4	20	100	400
<b>1,2,3,6,7,8-HxCDF</b>	0.2	1	4	20	100	400
<b>2,3,4,6,7,8-HxCDF</b>	0.2	1	4	20	100	400
<b>1,2,3,7,8,9-HxCDF</b>	0.2	1	4	20	100	400
<b>1,2,3,4,6,7,8-HpCDF</b>	0.2	1	4	20	100	400
<b>1,2,3,4,7,8,9-HpCDF</b>	0.2	1	4	20	100	400
<b>OCDF</b>	0.5	2.5	10	50	250	1000
<b>Labeled</b>						
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,3,6,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20	20
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,3,6,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,6,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20	20

### Non-2,3,7,8-Containing Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5314	<b>Dioxin/Furan Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EDF-5314-1	<b>Dioxin/Furan Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5314-2	<b>Dioxin/Furan Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5314-3	<b>Dioxin/Furan Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5314-4	<b>Dioxin/Furan Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5314-5	<b>Dioxin/Furan Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>1,3,6,8-TCDD</b>	0.2	1.0	5.0	20	100
<b>1,3,7,9-TCDD</b>	0.2	1.0	5.0	20	100
<b>1,2,8,9-TCDD</b>	0.2	1.0	5.0	20	100
<b>2,3,7,8-TCDD</b>	0.2	1.0	5.0	20	100
<b>1,2,3,7,8-PeCDD</b>	0.2	1.0	5.0	20	100
<b>1,2,3,4,7,8-HxCDD</b>	0.2	1.0	5.0	20	100
<b>1,2,3,6,7,8-HxCDD</b>	0.2	1.0	5.0	20	100
<b>1,2,3,7,8,9-HxCDD</b>	0.2	1.0	5.0	20	100
<b>1,2,3,4,6,7,8-HpCDD</b>	0.2	1.0	5.0	20	100
<b>OCDD</b>	0.4	2.0	10	40	200
<b>1,3,6,8-TCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,7,8-TCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,8,9-TCDF</b>	0.2	1.0	5.0	20	100
<b>2,3,7,8-TCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,3,7,8-PeCDF</b>	0.2	1.0	5.0	20	100
<b>2,3,4,7,8-PeCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,3,4,7,8-HxCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,3,6,7,8-HxCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,3,7,8,9-HxCDF</b>	0.2	1.0	5.0	20	100
<b>2,3,4,6,7,8-HxCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,3,4,6,7,8-HpCDF</b>	0.2	1.0	5.0	20	100
<b>1,2,3,4,7,8,9-HpCDF</b>	0.2	1.0	5.0	20	100
<b>OCDF</b>	0.4	2.0	10	40	200
<b>Labeled</b>					
<b>1,3,6,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,3,6,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20



### Non-2,3,7,8-Containing Standard Mixtures

Catalog #	Compound	Amount
EDF-5185	<b>Dioxin Furan Calibration Solutions with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup>C PCDFs [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
EDF-5185-1	<b>Dioxin Furan Calibration Solution with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup>C PCDFs [CS1]</b>	0.2 mL in Nonane
EDF-5185-2	<b>Dioxin Furan Calibration Solution with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup>C PCDFs [CS2]</b>	0.2 mL in Nonane
EDF-5185-3	<b>Dioxin Furan Calibration Solution with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup>C PCDFs [CS3]</b>	0.2 mL in Nonane
EDF-5185-4	<b>Dioxin Furan Calibration Solution with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup>C PCDFs [CS4]</b>	0.2 mL in Nonane
EDF-5185-5	<b>Dioxin Furan Calibration Solution with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup>C PCDFs [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>1,3,6,8-TCDD</b>	0.2	1	5	20	100
<b>1,3,7,9-TCDD</b>	0.2	1	5	20	100
<b>1,2,8,9-TCDD</b>	0.2	1	5	20	100
<b>2,3,7,8-TCDD</b>	0.2	1	5	20	100
<b>1,2,3,7,8-PeCDD</b>	0.2	1	5	20	100
<b>1,2,3,4,7,8-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,6,7,8-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,7,8,9-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,4,6,7,8-HpCDD</b>	0.4	2	10	40	200
<b>OCDD</b>	1	5	25	100	500
<b>1,3,6,8-TCDF</b>	0.2	1	5	20	100
<b>1,2,7,8-TCDF</b>	0.2	1	5	20	100
<b>1,2,8,9-TCDF</b>	0.2	1	5	20	100
<b>2,3,7,8-TCDF</b>	0.2	1	5	20	100
<b>1,2,3,7,8-PeCDF</b>	0.2	1	5	20	100
<b>2,3,4,7,8-PeCDF</b>	0.2	1	5	20	100
<b>1,2,3,4,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,6,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,7,8,9-HxCDF</b>	0.4	2	10	40	200
<b>2,3,4,6,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,6,7,8-HpCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,7,8,9-HpCDF</b>	0.4	2	10	40	200
<b>OCDF</b>	1	5	25	100	500
<b>Labeled</b>					
<b>1,3,6,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,3,6,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20

### Non-2,3,7,8-Containing Standard Mixtures

Catalog #	Compound	Amount
EDF-5040	<b>Non-2,3,7,8-Containing PCDF Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EDF-5040-1	<b>Non-2,3,7,8-Containing PCDF Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5040-2	<b>Non-2,3,7,8-Containing PCDF Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5040-3	<b>Non-2,3,7,8-Containing PCDF Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5040-4	<b>Non-2,3,7,8-Containing PCDF Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5040-5	<b>Non-2,3,7,8-Containing PCDF Calibration Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>2,3,7,8-TCDD</b>	0.2	1	5	20	100
<b>1,2,3,7,8-PeCDD</b>	0.2	1	5	20	100
<b>1,2,3,4,7,8-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,6,7,8-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,7,8,9-HxCDD</b>	0.4	2	10	40	200
<b>1,2,3,4,6,7,8-HpCDD</b>	0.4	2	10	40	200
<b>OCDD</b>	1	5	25	100	500
<b>2,3,7,8-TCDF</b>	0.2	1	5	20	100
<b>1,2,3,7,8-PeCDF</b>	0.2	1	5	20	100
<b>2,3,4,7,8-PeCDF</b>	0.2	1	5	20	100
<b>1,2,3,4,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,6,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,7,8,9-HxCDF</b>	0.4	2	10	40	200
<b>2,3,4,6,7,8-HxCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,6,7,8-HpCDF</b>	0.4	2	10	40	200
<b>1,2,3,4,7,8,9-HpCDF</b>	0.4	2	10	40	200
<b>OCDF</b>	1	5	25	100	500
<b>Labeled</b>					
<b>1,3,6,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40
<b>1,3,6,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,6,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40

### Non-2,3,7,8-Containing Standard Mixtures

Catalog #	Compound	Amount
EDF-5041	<b>Non-2,3,7,8-Containing PCDF Cleanup Standard</b>	1.2 mL in Nonane

Labeled	(ng/mL)
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	4000
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	4000

EF-5042	<b>Non-2,3,7,8-Containing PCDF Syringe Standard</b>	1.2 mL in Nonane
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Labeled	
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000

EDF-5043	<b>Non-2,3,7,8-Containing PCDF Sampling Standard</b>	1.2 mL in Nonane
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Labeled	
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000
<b>1,2,3,4,6,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000

EF-5188	<b>Non-2,3,7,8-Containing <sup>13</sup>C Furan Syringe Spike</b>	1.2 mL in Nonane
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Labeled	
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000

Two Column Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
NEW EDF-5429-6H	<b>Two Column Dioxin and Furan Calibration Solutions [CS1H-CS6H]</b>	Set of 6 x 0.2 mL in Nonane
NEW EDF-5429-7H	<b>Two Column Dioxin and Furan Calibration Solutions [CS1H-CS7H]</b>	Set of 7 x 0.2 mL in Nonane
NEW EDF-5429-CS1H	<b>Two Column Dioxin and Furan Calibration Solution [CS1H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS2H	<b>Two Column Dioxin and Furan Calibration Solution [CS2H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS3H	<b>Two Column Dioxin and Furan Calibration Solution [CS3H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS4H	<b>Two Column Dioxin and Furan Calibration Solution [CS4H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS5H	<b>Two Column Dioxin and Furan Calibration Solution [CS5H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS6H	<b>Two Column Dioxin and Furan Calibration Solution [CS6H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS7H	<b>Two Column Dioxin and Furan Calibration Solution [CS7H]</b>	0.2 mL in Nonane
NEW EDF-5429-CS8H	<b>Two Column Dioxin and Furan Calibration Solution [CS8H]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	CS1H	CS2H	CS3H	CS4H	CS5H	CS6H	CS7H	CS8H
<b>2,3,7,8-TCDF</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,3,6,8-TCDF</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,7,8-TCDF</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,8,9-TCDF</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,3,7,8-PeCDF</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>2,3,4,7,8-PeCDF</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,3,4,7,8-HxCDF</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,6,7,8-HxCDF</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>2,3,4,6,7,8-HxCDF</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,7,8,9-HxCDF</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,4,6,7,8-HpCDF</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,4,7,8,9-HpCDF</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>OCDF</b>	0.5	2.5	10	50	250	1000	2500	5000
<b>2,3,7,8-TCDD</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,3,6,8-TCDD</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,3,7,9-TCDD</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,8,9-TCDD</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,3,7,8-PeCDD</b>	0.1	0.5	2.0	10	50	200	500	1000
<b>1,2,3,4,7,8-HxCDD</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,6,7,8-HxCDD</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,7,8,9-HxCDD</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>1,2,3,4,6,7,8-HpCDD</b>	0.2	1.0	4.0	20	100	400	1000	2000
<b>OCDD</b>	0.5	2.5	10	50	250	1000	2500	5000
Labeled								
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,3,6,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20	20	20	20
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,6,7-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD(<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	10	10
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20	20	20	20

## Two Column Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5430	<b>Two Column Dioxin and Furan Cleanup Spike</b>	1.2 mL in Nonane

Labeled	(ng/mL)
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100

<b>NEW</b> EDF-5431	<b>Two Column Dioxin and Furan Syringe Spike</b>	1.2 mL in Nonane
<b>NEW</b> EDF-5431-20X	<b>Two Column Dioxin and Furan Syringe Spike</b>	1.2 mL in Nonane

Labeled	EDF-5431	EDF-5431-20X
<b>1,2,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	1000
<b>1,2,3,4,6-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	1000
<b>1,2,3,4,6,7-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	1000
<b>1,2,3,4,6,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	1000

<b>NEW</b> EDF-5444-A	<b>Two Column Dioxin and Furan and PCB Cleanup Spike</b>	0.6 mL in Nonane
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Labeled	(ng/mL)	Labeled	IUPAC	(ng/mL)
<b>2,3,7,8-TCDD-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>		2000
<b>1,2,3,7,8-PeCD-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>3,4,4',5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	1000
<b>1,2,3,4,7,8-HxCd-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	1000
<b>1,2,3,6,7,8-HxCd-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>3,3',4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	1000
<b>1,2,3,7,8,9-HxCd-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	1000
<b>1,2,3,4,6,7,8-HpCD-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2',3,4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	1000
<b>OCD-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000	<b>2,3',4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	1000
<b>1,3,6,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	1000
<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,3,4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	1000
<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	1000
<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	1000
<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	1000
<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	1000
<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	1000
<b>2,3,4,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000			
<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000			
<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000			

## Two Column Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5443	<b>Two Column Dioxin and Furan and PCB Calibration Solutions [CS1H-CS6H]</b>	Set of 6 x 0.2 mL in Nonane
<b>NEW</b> EDF-5443-CS1H	<b>Two Column Dioxin and Furan and PCB Calibration Solution [CS1H]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5443-CS2H	<b>Two Column Dioxin and Furan and PCB Calibration Solution [CS2H]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5443-CS3H	<b>Two Column Dioxin and Furan and PCB Calibration Solution [CS3H]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5443-CS4H	<b>Two Column Dioxin and Furan and PCB Calibration Solution [CS4H]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5443-CS5H	<b>Two Column Dioxin and Furan and PCB Calibration Solution [CS5H]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5443-CS6H	<b>Two Column Dioxin and Furan and PCB Calibration Solution [CS6H]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	IUPAC	CS1H	CS2H	CS3H	CS4H	CS5H	CS6H
2,3,7,8-TCDF		0.1	0.5	2.0	10	50	200
1,3,6,8-TCDF		0.1	0.5	2.0	10	50	200
1,2,7,8-TCDF		0.1	0.5	2.0	10	50	200
1,2,8,9-TCDF		0.1	0.5	2.0	10	50	200
1,2,3,7,8-PeCDF		0.1	0.5	2.0	10	50	200
2,3,4,7,8-PeCDF		0.1	0.5	2.0	10	50	200
1,2,3,4,7,8-HxCDF		0.2	1.0	4.0	20	100	400
1,2,3,6,7,8-HxCDF		0.2	1.0	4.0	20	100	400
2,3,4,6,7,8-HxCDF		0.2	1.0	4.0	20	100	400
1,2,3,7,8,9-HxCDF		0.2	1.0	4.0	20	100	400
1,2,3,4,6,7,8-HpCDF		0.2	1.0	4.0	20	100	400
1,2,3,4,7,8,9-HpCDF		0.2	1.0	4.0	20	100	400
OCDF		0.5	2.5	10	50	250	1000
2,3,7,8-TCDD		0.1	0.5	2.0	10	50	200
1,3,6,8-TCDD		0.1	0.5	2.0	10	50	200
1,3,7,9-TCDD		0.1	0.5	2.0	10	50	200
1,2,8,9-TCDD		0.1	0.5	2.0	10	50	200
1,2,3,7,8-PeCDD		0.1	0.5	2.0	10	50	200
1,2,3,4,7,8-HxCDD		0.2	1.0	4.0	20	100	400
1,2,3,6,7,8-HxCDD		0.2	1.0	4.0	20	100	400
1,2,3,7,8,9-HxCDD		0.2	1.0	4.0	20	100	400
1,2,3,4,6,7,8-HpCDD		0.2	1.0	4.0	20	100	400
OCDD		0.5	2.5	10	50	250	1000
3,4,4',5-TetraCB	81	0.2	1.0	4.0	20	50	200
3,3',4,4'-TetraCB	77	0.2	1.0	4.0	20	50	200
3,3',4,4',5-PentaCB	126	0.2	1.0	4.0	20	50	200
3,3',4,4',5,5'-HexaCB	169	0.2	1.0	4.0	20	50	200
2',3,4,4',5-PentaCB	123	0.2	1.0	4.0	20	50	200
2,3',4,4',5-PentaCB	118	0.2	1.0	4.0	20	50	200
2,3,3',4,4'-PentaCB	105	0.2	1.0	4.0	20	50	200
2,3,4,4',5-PentaCB	114	0.2	1.0	4.0	20	50	200
2,3',4,4',5,5'-HexaCB	167	0.2	1.0	4.0	20	50	200
2,3,3',4,4',5-HexaCB	156	0.2	1.0	4.0	20	50	200
2,3,3',4,4',5'-HexaCB	157	0.2	1.0	4.0	20	50	200
2,3,3',4,4',5,5'-HeptaCB	189	0.2	1.0	4.0	20	50	200
2,2',3,3',4,4',5-HeptaCB	170	0.2	1.0	4.0	20	50	200
2,2',3,4,4',5,5'-HeptaCB	180	0.2	1.0	4.0	20	50	200

(continued on next page)

Two Column Dioxin and Furan Standard Mixtures

(continued from previous page)

*All concentrations are in ng/mL (ppb)*

Labeled	IUPAC	CS1H	CS2H	CS3H	CS4H	CS5H	CS6H
<b>1,2,3,4-TCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,3,6,8-TCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>2,3,7,8-TCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,7,8-PeCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,6,7-HxCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>OCDD</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
<b>2,3,7,8-TCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,7,8-TCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,7,8-PeCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>2,3,4,7,8-PeCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,6-PeCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,7,8-HxCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,6,7,8-HxCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>2,3,4,6,7,8-HxCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,7,8,9-HxCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,6,7,8-HpCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,6,8,9-HpCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>1,2,3,4,7,8,9-HpCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		10	10	10	10	10	10
<b>OCDF</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
<b>3,4,4',5-TetraCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>81</b>	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>77</b>	10	10	10	10	10	10
<b>3,3',4,4',5-PentaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>126</b>	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>169</b>	10	10	10	10	10	10
<b>2',3,4,4',5-PentaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>123</b>	10	10	10	10	10	10
<b>2,3',4,4',5-PentaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>118</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5-PentaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>105</b>	10	10	10	10	10	10
<b>2,3,4,4',5-PentaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>114</b>	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>167</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>156</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5'-HexaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>157</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>189</b>	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>170</b>	10	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>180</b>	10	10	10	10	10	10
<b>2,3',4',5-TetraCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>70</b>	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>111</b>	10	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>138</b>	10	10	10	10	10	10
<b>2,2',3,3',5,5',6-HeptaCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>178</b>	10	10	10	10	10	10
<b>3,3',4,5'-TetraCB</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>79</b>	10	10	10	10	10	10



### Mono-Tri Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-4954	<b>Mono-TriCDD/CDF Native Solution</b>	1.2 mL in Nonane

Unlabeled	(ng/mL)
<b>2-MCDD</b>	1000
<b>2-MCDF</b>	1000
<b>2,3-DiCDD</b>	1000
<b>2,8-DiCDF</b>	1000
<b>2,3,7-TrCDD</b>	1000
<b>2,4,8-TrCDF</b>	1000

EDF-4955	<b>Mono-TriCDD/CDF <sup>13</sup>C-Labeled Solution</b>	1.2 mL in Nonane
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Labeled	
<b>2-MCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>2-MCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>2,3-DiCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>2,8-DiCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>2,3,7-TrCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>2,4,8-TrCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000

### Isotope Labeled Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-957	<b>Carbon-13 Quantifying Cocktail (2,3,7,8-PCDD/PCDF isomers)</b>	Set of 3 x 0.4 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000

EDF-4067	<b>Tetra-OctaCDD and CDF Standard Solution (2,3,7,8-isomers)</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000

EDF-4067-A	<b>Tetra-OctaCDD and CDF Standard Solution (2,3,7,8-isomers excluding 1,2,3,7,8,9-HxCDD)</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000

### Isotope Labeled Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-4903	<b>Tetra-OctaCDD and CDF Standard Solution (2,3,7,8 isomers + 1,3,6,8-TCDD)</b>	1.2 mL in Nonane

Labeled	(ng/mL)
1,3,6,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000

<b>NEW</b> EDF-5304	<b>Dioxin and Furan Cleanup Spike</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
1,3,6,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	2000
1,3,6,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	1000
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	2000

## Isotope Labeled Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
ED-998	<b>TCDD-OCDD Standard Solution (2,3,7,8 isomers)</b>	1.2 mL in Nonane
	Labeled (ng/mL)	
	<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,7,8,9-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
EF-999	<b>TCDF-OCDF Standard Solution (2,3,7,8 isomers excluding 2,3,4,6,7,8-HxCDF)</b>	1.2 mL in Nonane
	Labeled	
	<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,7,8,9-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
	<b>OCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>NEW</b> EDF-4136-A	<b>Pre-Sampling Spike Mix</b>	1.2 mL in Nonane
	Labeled	
	<b>2,3-DiCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,8-DiCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,3,7-TrCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	1250
	<b>2,3,4,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,4,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,4,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,4,7,8,9-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
<b>NEW</b> EDF-4137-A	<b>Internal Standard Mix – High</b>	1.2 mL in Nonane
	Labeled	
	<b>2-MCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2-MCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,7/2,8-DiCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,4-DiCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,4,8-TRCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1250
	<b>2,3,7,8-TCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1250
	<b>1,2,3,7,8-PeCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,7,8-PeCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,6,7,8-HxCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,6,7,8-HxCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,4,6,7,8-HpCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>1,2,3,4,6,7,8-HpCDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	2500
	<b>OCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	5000

### Isotope Labeled Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5192	<b>Dioxin and Furan Cleanup Spike</b>	1.2 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	400
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	400

EDF-5174-40X	<b>1,3,6,8-TCDD/F Containing Cleanup Spike – 40X Stock Solution</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
1,3,6,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8-PeCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,6,7,8-HpCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
OCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	400
1,3,6,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,6,7,8-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
OCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	400

### Unlabeled Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
ED-906B-5	<b>TCDD-HpCDD Standard Solution (B) (2,3,7,8 isomers)</b>	1.2 mL in Nonane
ED-906B-25	<b>TCDD-HpCDD Standard Solution (B) (2,3,7,8 isomers)</b>	1.2 mL in Nonane

Unlabeled	ED-906B-5 (ng/mL)	ED-906B-25 (ng/mL)
<b>2,3,7,8-TCDD</b>	5000	25,000
<b>1,2,3,7,8-PeCDD</b>	5000	25,000
<b>1,2,3,4,7,8-HxCDD</b>	5000	25,000
<b>1,2,3,6,7,8-HxCDD</b>	5000	25,000
<b>1,2,3,7,8,9-HxCDD</b>	5000	25,000
<b>1,2,3,4,6,7,8-HpCDD</b>	5000	25,000

EF-909B-5	<b>TCDF-HpCDF Standard Solution (B) (2,3,7,8 isomers)</b>	1.2 mL in Nonane
EF-909B-25	<b>TCDF-HpCDF Standard Solution (B) (2,3,7,8 isomers)</b>	1.2 mL in Nonane

Unlabeled	ED-909B-5	ED-909B-25
<b>2,3,7,8-TCDF</b>	5000	25,000
<b>1,2,3,7,8-PeCDF</b>	5000	25,000
<b>2,3,4,7,8-PeCDF</b>	5000	25,000
<b>1,2,3,4,7,8-HxCDF</b>	5000	25,000
<b>1,2,3,6,7,8-HxCDF</b>	5000	25,000
<b>1,2,3,7,8,9-HxCDF</b>	5000	25,000
<b>2,3,4,6,7,8-HxCDF</b>	5000	25,000
<b>1,2,3,4,6,7,8-HpCDF</b>	5000	25,000
<b>1,2,3,4,7,8,9-HpCDF</b>	5000	25,000

<b>NEW</b> ED-4135	<b>Chlorodioxin Mix – High</b>	1 mL in Nonane
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Unlabeled	
<b>2-MonoCDD</b>	5000
<b>2,8-DiCDD</b>	5000
<b>2,3,7-TrCDD</b>	5000
<b>2,3,7,8-TCDD</b>	5000
<b>1,2,3,7,8-PeCDD</b>	5000
<b>1,2,3,4,7,8-HxCDD</b>	5000
<b>1,2,3,6,7,8-HxCDD</b>	5000
<b>1,2,3,7,8,9-HxCDD</b>	5000
<b>1,2,3,4,6,7,8-HpCDD</b>	5000
<b>OCDD</b>	5000

<b>NEW</b> EF-4134	<b>Chlorodibenzofuran Mix – High</b>	1 mL in Nonane
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Unlabeled	
<b>2-MCDF</b>	5000
<b>2,4-DiCDF</b>	5000
<b>2,4,6-TrCDF</b>	5000
<b>2,3,7,8-TCDF</b>	5000
<b>1,2,3,7,8-PeCDF</b>	5000
<b>2,3,4,7,8-PeCDF</b>	5000
<b>1,2,3,4,7,8-HxCDF</b>	5000
<b>1,2,3,6,7,8-HxCDF</b>	5000
<b>2,3,4,6,7,8-HxCDF</b>	5000
<b>1,2,3,7,8,9-HxCDF</b>	5000
<b>1,2,3,4,6,7,8-HpCDF</b>	5000
<b>1,2,3,4,7,8,9-HpCDF</b>	5000
<b>OCDF</b>	5000

### Chlorodioxin and Chlorofuran Window Defining Mixtures

Catalog #	Compound	Amount
EDF-4147	<b>PCDD/PCDF Window Defining and Isomer Specificity Mix</b> (DB-5 and DB-225 Columns)	1.2 mL in Nonane

Congeners	(ng/mL)
1,3,6,8-TCDD	200
1,2,8,9-TCDD	200
2,3,7,8-TCDD	200
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	200
1,2,3,7/1,2,3,8-TCDD	200
1,2,3,9-TCDD	200
1,3,6,8-TCDF	200
1,2,8,9-TCDF	200
2,3,7,8-TCDF	200
2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	200
2,3,4,7-TCDF	200
1,2,3,9-TCDF	200
1,2,4,6,8/1,2,4,7,9-PeCDD	200
1,2,3,8,9-PeCDD	200
1,3,4,6,8-PeCDF	200
1,2,3,8,9-PeCDF	200
1,2,4,6,7,9/1,2,4,6,8,9-HxCDD	200
1,2,3,4,6,7-HxCDD	200
1,2,3,4,6,8-HxCDF	200
1,2,3,4,8,9-HxCDF	200
1,2,3,4,6,7,9-HpCDD	200
1,2,3,4,6,7,8-HpCDF	200
1,2,3,4,6,7,8-HpCDD	200
1,2,3,4,7,8,9-HpCDF	200

<b>NEW</b> ED-1732-S	<b>TCDD-HpCDD Window Defining Mixture (DB-5)</b>	0.5 mL in Nonane
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Unlabeled	
1,3,6,8-TCDD	800
1,2,8,9-TCDD	800
1,2,4,6,8/1,2,4,7,9-PeCDD	800
1,2,3,8,9-PeCDD	800
1,2,3,4,6,7-HxCDD	800
1,2,4,6,7,9/1,2,4,6,8,9-HxCDD	800
1,2,3,4,6,7,8-HpCDD	800
1,2,3,4,6,7,9-HpCDD	800

<b>NEW</b> EF-1731-S	<b>TCDF-HpCDF Window Defining Mixture (DB-5)</b>	0.5 mL in Nonane
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Unlabeled	
1,3,6,8-TCDF	800
1,2,8,9-TCDF	800
1,3,4,6,8-PeCDF	800
1,2,3,8,9-PeCDF	800
1,2,3,4,6,8-HxCDF	800
1,2,3,4,8,9-HxCDF	800
1,2,3,4,6,7,8-HpCDF	800
1,2,3,4,7,8,9-HpCDF	800

### TCDD and TCDF Column Performance Mixtures

ED-908	TCDD Column Performance Solution Mixture	1.2 mL in Nonane
	Unlabeled	(ng/mL)
	<b>1,2,3,4-TCDD</b>	10
	<b>1,2,3,7/1,2,3,8-TCDD</b>	10
	<b>1,2,7,8-TCDD</b>	10
	<b>1,4,7,8-TCDD</b>	10
	<b>2,3,7,8-TCDD</b>	10
<b>NEW</b> ED-935-A	<b>Modified TCDD Column Performance Check Solution</b>	0.5 mL in Nonane
	Congeners	
	<b>2,3,7,8-TCDD</b>	100
	<b>1,2,3,4-TCDD</b>	100
	<b>1,4,7,8-TCDD</b>	100
	<b>1,2,3,7/1,2,3,8-TCDD pair</b>	100
	<b>1,2,7,8-TCDD</b>	200
	<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	250
	<b>2,3,7,8-TCDD (<sup>37</sup>Cl<sub>4</sub>,96%)</b>	7
	<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	500



### Bromodioxin/Furan Calibration Solutions

Catalog #	Compound	Amount
<b>NEW</b> EDF-5407	<b>Bromodioxin/Furan Calibration Standard Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EDF-5407-1	<b>Bromodioxin/Furan Calibration Standard Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5407-2	<b>Bromodioxin/Furan Calibration Standard Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5407-3	<b>Bromodioxin/Furan Calibration Standard Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5407-4	<b>Bromodioxin/Furan Calibration Standard Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5407-5	<b>Bromodioxin/Furan Calibration Standard Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>2,3,7,8-TBDD</b>	0.1	0.4	2.0	10	50
<b>1,2,3,7,8-PeBDD</b>	0.2	0.8	4.0	20	100
<b>1,2,3,4,7,8-HxBDD</b>	0.6	2.4	12.0	60	300
<b>1,2,3,6,7,8-HxBDD</b>	0.6	2.4	12.0	60	300
<b>1,2,3,7,8,9-HxBDD</b>	0.6	2.4	12.0	60	300
<b>1,2,3,4,6,7,8-HpBDD</b>	0.75	3.0	15.0	75	375
<b>OBDD</b>	1.0	4.0	20.0	100	500
<b>2,3,7,8-TBDF</b>	0.2	0.8	4.0	20	100
<b>2,4,6,8-TBDF</b>	0.2	0.8	4.0	20	100
<b>1,2,3,7,8-PeBDF</b>	0.4	1.6	8.0	40	200
<b>2,3,4,7,8-PeBDF</b>	0.4	1.6	8.0	40	200
<b>1,2,3,4,7,8-HxBDF</b>	0.6	2.4	12.0	60	300
<b>1,2,3,4,6,7,8-HpBDF</b>	0.75	3.0	15.0	75	375
<b>OBDF</b>	1.0	4.0	20.0	100	500
Labeled					
<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,6,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,7,8,9-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,4,6,7,8-HpBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>OBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	150	150	150	150	150
<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,4,6,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20
<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	50	50	50	50
<b>1,2,3,4,6,7,8-HpBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>OBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	150	150	150	150	150

### Bromodioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5408	<b>Bromodioxin/Furan Cleanup Spike</b>	0.5 mL in Nonane
	Labeled	(ng/mL)
	<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
	<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
	<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	250
	<b>1,2,3,6,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	250
	<b>1,2,3,4,6,7,8-HpBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	500
	<b>OBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	750
	<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
	<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
	<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	250
	<b>1,2,3,4,6,7,8-HpBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	500
	<b>OBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	750
<b>NEW</b> EDF-5409	<b>Bromodioxin/Furan Syringe Spike</b>	1.2 mL in Nonane
	Labeled	
	<b>1,2,3,7,8,9-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	500
	<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200
<b>NEW</b> EF-5410	<b>Bromodioxin/Furan Sampling Spike</b>	1.2 mL in Nonane
	Labeled	
	<b>2,4,6,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200

### Bromodioxin/Furan Calibration Solutions

Catalog #	Compound	Amount
<b>NEW</b> EDF-5381	<b>PBDD/F Calibration Solutions [CS1-CS7]</b>	Set of 7 x 0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS1	<b>PBDD/F Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS2	<b>PBDD/F Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS3	<b>PBDD/F Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS4	<b>PBDD/F Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS5	<b>PBDD/F Calibration Solution [CS5]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS6	<b>PBDD/F Calibration Solution [CS6]</b>	0.2 mL in Nonane
<b>NEW</b> EDF-5381-CS7	<b>PBDD/F Calibration Solution [CS7]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5	CS6	CS7
<b>2,3,7,8-TeBDD</b>	0.1	0.4	2	10	20	40	—
<b>1,2,3,7,8-PeBDD</b>	0.2	0.8	4	20	40	80	—
<b>1,2,3,4,7,8-HxBDD</b>	0.75	3	15	75	150	300	—
<b>1,2,3,6,7,8-HxBDD</b>	0.75	3	15	75	150	300	—
<b>1,2,3,7,8,9-HxBDD</b>	0.75	3	15	75	150	300	—
<b>OBDD</b>	1	4	20	100	200	400	800
<b>2,3,7,8-TeBDF</b>	0.5	2	10	50	100	200	—
<b>2,4,6,8-TeBDF</b>	0.5	2	10	50	100	200	—
<b>1,2,3,7,8-PeBDF</b>	0.5	2	10	50	100	200	—
<b>2,3,4,7,8-PeBDF</b>	0.5	2	10	50	100	200	—
<b>1,2,3,4,7,8-HxBDF</b>	0.75	3	15	75	150	300	—
<b>1,2,3,4,6,7,8-HpBDF</b>	0.75	3	15	75	150	300	600
<b>OBDF</b>	1	4	20	100	200	400	800
Labeled							
<b>2,3,7,8-TeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10	10	—
<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	20	20	20	20	20	—
<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	75	75	75	75	75	75	—
<b>1,2,3,6,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	75	75	75	75	75	75	—
<b>1,2,3,7,8,9-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	—
<b>OBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	225	225	225	225	225	225	225
<b>2,3,7,8-TeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40	40	—
<b>2,4,6,8-TeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40	40	—
<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40	40	—
<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40	40	—
<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	40	40	40	40	40	—
<b>1,2,3,4,6,7,8-HpBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100	100	—
<b>OBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	225	225	225	225	225	225	225

### Bromodioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EDF-5382	<b>PBDD/F Cleanup Spike</b>	0.5 mL in Nonane
	Labeled (ng/mL)	
	<b>2,3,7,8-TeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50
	<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
	<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	375
	<b>1,2,3,6,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	375
	<b>OBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1125
	<b>2,3,7,8-TeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200
	<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200
	<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	375
	<b>1,2,3,4,6,7,8-HpBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	500
	<b>OBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1125
<b>NEW</b> EDF-5383	<b>PBDD/F Syringe Spike Stock</b>	1.2 mL in Nonane
<b>NEW</b> EDF-5383-4X	<b>PBDD/F Syringe Spike Stock</b>	1.2 mL in Nonane
	Labeled	EDF-5383    EDF-5383-4X
	<b>1,2,3,7,8,9-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	500            2000
	<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200            800
<b>NEW</b> EF-5384	<b>PBDD/F Sampling Stock</b>	1.2 mL in Nonane
<b>NEW</b> EF-5384-4X	<b>PBDD/F Sampling Stock</b>	1.2 mL in Nonane
	Labeled	EF-5384    EF-5384-4X
	<b>2,4,6,8-TeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	200            800

## Bromodioxin/Furan Calibration Solutions

Catalog #	Compound	Amount
EDF-5070	<b>Brominated Dioxin/Furan Calibration Solutions [BCS1-BCS5]</b>	Set of 5 x 0.2 mL in Nonane
EDF-5070-1	<b>Brominated Dioxin/Furan Calibration Solution [BCS1]</b>	0.2 mL in Nonane
EDF-5070-2	<b>Brominated Dioxin/Furan Calibration Solution [BCS2]</b>	0.2 mL in Nonane
EDF-5070-3	<b>Brominated Dioxin/Furan Calibration Solution [BCS3]</b>	0.2 mL in Nonane
EDF-5070-4	<b>Brominated Dioxin/Furan Calibration Solution [BCS4]</b>	0.2 mL in Nonane
EDF-5070-5	<b>Brominated Dioxin/Furan Calibration Solution [BCS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	BCS1	BCS2	BCS3	BCS4	BCS5
<b>2,3,7,8-TBDD</b>	0.5	2	10	40	100
<b>1,2,3,7,8-PeBDD</b>	2.5	10	50	200	500
<b>1,2,3,4,7,8-HxBDD</b>	2.5	10	50	200	500
<b>1,2,3,6,7,8-HxBDD</b>	2.5	10	50	200	500
<b>1,2,3,7,8,9-HxBDD</b>	2.5	10	50	200	500
<b>2,3,7,8-TBDF</b>	0.5	2	10	40	100
<b>1,2,3,7,8-PeBDF</b>	2.5	10	50	200	500
<b>2,3,4,7,8-PeBDF</b>	2.5	10	50	200	500
Labeled					
<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
Cleanup Standard					
<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	0.5	2	10	40	100
Internal Standards					
<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>1,2,3,6,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	25	25	25	25	25

## Bromodioxin/Furan Standard Mixtures

Catalog #	Compound	Amount	
EDF-5058	<b>Tetra-Hexa Brominated Dioxin and Furan Standard Solution</b>	1.2 mL in Nonane	
	Labeled (ng/mL)		
	<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	
	<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	
	<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	
	<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	
	<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	
<b>NEW</b> EDF-5073	<b>Brominated Dioxin/Furan Internal Standard</b>	1.2 mL in Nonane	
	Labeled		
	<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	200	
	<b>1,2,3,6,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	50	
	<b>1,2,3,7,8,9-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	150	
EDF-5071	<b>Brominated Dioxin/Furan Labeled Compounds</b>	1.2 mL in Nonane	
	Labeled		
	<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
	<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
	<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
	<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
	<b>1,2,3,4,7,8-HxBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
EDF-2530	<b>Tetra-Penta Brominated Dioxin and Furan Standard Solution</b>	1.2 mL in Nonane	
	Labeled		
	<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
	<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000	
	<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	500	
	<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	5000	
EDF-4153	<b>PBDD/PBDF Surrogate Spiking Solution</b>	1 mL in Nonane	
<b>NEW</b> EDF-4153-10X	<b>PBDD/PBDF Surrogate Spiking Solution</b>	0.5 mL in Nonane	
	Labeled	EDF-4153	EDF-4153-10X
	<b>2,3,7,8-TBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	200
	<b>2,3,7,8-TBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	200
	<b>1,2,3,7,8-PeBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	200
	<b>1,2,3,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	20	200
	<b>1,2,3,6,7,8/1,2,3,7,8,9-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	40	400
EDF-4154	<b>PBDD/PBDF Performance Standard Mixture</b>	1 mL in Nonane	
	Labeled		
	<b>2,3,4,7,8-PeBDF (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	
	<b>1,2,3,4,7,8-HxBDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	

### Bromodioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-5059	<b>Polybrominated Dioxin and Furan Mixture</b>	1.2 mL in Nonane

Unlabeled	(ng/mL)
<b>2,3,7,8-TBDD</b>	1000
<b>1,2,3,7,8-PeBDD</b>	1000
<b>1,2,3,4,7,8-HxBDD</b>	1000
<b>1,2,3,6,7,8-HxBDD</b>	1000
<b>1,2,3,7,8,9-HxBDD</b>	1000
<b>OBDD</b>	1000
<b>2,3,7,8-TBDF</b>	1000
<b>1,2,3,7,8-PeBDF</b>	1000
<b>2,3,4,7,8-PeBDF</b>	1000
<b>1,2,3,4,7,8-HxBDF</b>	1000
<b>1,2,3,4,6,7,8-HpBDF</b>	1000

EDF-5074	<b>Brominated Dioxin/Furan PAR Solution</b>	1.2 mL in Nonane
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Unlabeled	
<b>2,3,7,8-TBDD</b>	100
<b>1,2,3,7,8-PeBDD</b>	500
<b>1,2,3,4,7,8-HxBDD</b>	500
<b>1,2,3,6,7,8-HxBDD</b>	500
<b>1,2,3,7,8,9-HxBDD</b>	500
<b>2,3,7,8-TBDF</b>	100
<b>1,2,3,7,8-PeBDF</b>	500
<b>2,3,4,7,8-PeBDF</b>	500



## PCB Standards and Standard Mixtures

From their first commercial use in the 1920s, it is estimated that over 1,500,000 tons ( $1.5 \times 10^{21}$  ng) of PCBs were produced worldwide. PCBs were banned from production in most countries in the 1970s, though large-scale contamination of the environment remains a problem today. In 2001, PCBs were included in the original Stockholm Convention list of Persistent Organic Pollutants.



## Unlabeled “Certified” PCB Standards

While CIL’s primary business is isotopically labeled standards, it is important to remember that the accuracy and precision of a quantitative analysis is dependent upon the accuracy and precision of the unlabeled (native) standards. In the past, CIL utilized commercially available native standards from multiple vendors for the confirmation of our isotopically labeled standards. It was discovered, however, that there can be substantial variability among the commercial native standards. Thus CIL initiated the “Certified” PCB standards program. CIL prepares native “Certified” standards using good laboratory practice (GLP). Individual, native, crystalline PCB isomers (98%+ purity) are weighed in triplicate on a microbalance calibrated with NIST traceable Class S weights, and formulated to specific concentration. Triplicate analyses of each of the three solutions in iso-octane are carried out using GC/MS. In order to establish statistical control, the relative standard deviation (RSD) of each solution must be less than 5%, and the RSD for the entire set of analyses for all three standards must be <5%. When these parameters have been met, the solutions are combined and the resulting solution analyzed again in triplicate by three chemists. If the RSD of these analyses is also <5%, the final product is the “Certified” PCB standard. These 100 µg/mL solutions are highly accurate native standards for quantitation of PCBs. These standards are used in all CIL calibration series and native standard mixtures, and are used to validate all isotope labeled standards from CIL.

## Isotope Labeled PCB Standards

CIL now offers more than 50 individual <sup>13</sup>C-labeled PCB standards to meet the growing needs of researchers utilizing Isotope Dilution MS. All <sup>13</sup>C-labeled PCB standards are quantified against CIL “Certified” unlabeled PCB standards for utmost precision and accuracy.

In addition to the “Dioxin-Like” (DL) congeners designated by the WHO, CIL also offers standards for the “non-Dioxin-Like” or “Marker” PCB congeners found in commercial mixtures, as well as a host of other <sup>13</sup>C-labeled PCB standards used for specialized purposes.

## NEW “High Purity” PCB Standards

For more than 20 years CIL has been a pioneer in developing high quality PCB standards, introducing the first <sup>13</sup>C-labeled PCBs used in the earliest IDMS methods, and more recently developing the first PCB standards formulated under the “Certified Standards” protocol.

CIL is once again responding to the needs of the analytical community by providing High Purity PCB standards. As new instrumentation and methodologies drive detection limits lower, the presence of even very low levels of impurities in the labeled standards of other PCB congeners or polychlorinated dibenzo--dioxins and dibenzofurans (PCDD/Fs), become a hindrance to the laboratories minimum detection capabilities.

CIL has developed aggressive cleanup procedures, and adopted much tighter quality control specifications for the eight mono-ortho substituted “dioxin-like” PCBs (DL-PCBs). These new specifications include extremely low allowances for <sup>13</sup>C-non-ortho DL-PCBs, native content, other PCB congeners and PCDD/Fs.

Chemical Identity: Unambiguous identity by GC/MS, <sup>1</sup>H-NMR, <sup>13</sup>C-NMR, and MP determination

Isotopic Enrichment: 99% by GC/MS

Chemical Purity: >98% by GC/MS, GC/ECD, and <sup>1</sup>H-NMR

- Native Content: <0.1% by GC/MS SI
- <sup>13</sup>C-non-ortho DL-PCBs: <0.05% by GC/ECD vs. cal-curve, or HRGC/MS
- 17 (2,3,7,8) Containing PCDD/Fs: <0.05% for each compound by HRGC/MS

Concentration: 40 ± 2 µg/mL by comparison assay vs. native “Certified Standard”

Uncertainty: Conforming to Eurachem/CITAC Guide “Quantifying Uncertainty in Analytical Measurement”

## CEN Method EN-1948-4 PCB Standard Mixtures

In 2006, CIL collaborated with the CEN (European Committee for Standardization) organizing laboratory to develop and define PCB Calibration series and <sup>13</sup>C<sub>12</sub>-labeled spiking solutions to be used with method CEN/TS 1948-4. CIL supplied these standards to the organizing laboratory for use in their Interlaboratory Evaluation Study, and now these same standards are available to you from CIL.

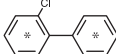
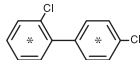
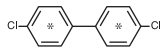
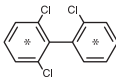
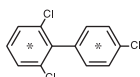
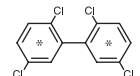
## NEW Comprehensive Native PCB Mixtures

CIL has produced two large mixes of unlabeled PCBs, formulated entirely from CIL’s PCB “Certified Standards” individual stock solutions. The Comprehensive Native PCB Mixture is a multipurpose mixture that includes all the WHO Dioxin-Like PCBs that have been assigned TEFs, the predominant congeners, and first- and last-eluting congeners from the Mono through Deca homologue groups. Since some pairs of these compounds coelute on certain columns, the Fully Resolved Native Mono-Deca PCB Mixture was formulated with no coeluting congeners under normal analytical conditions.

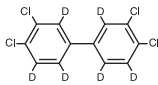
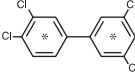
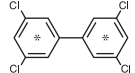
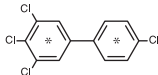
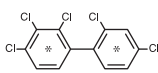
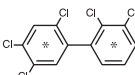
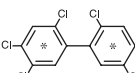
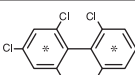
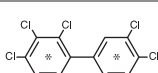
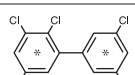
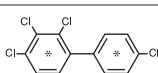
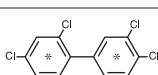
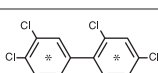
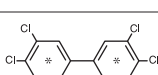
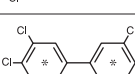
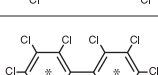
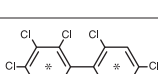
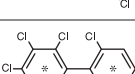
## NEW Mixed Bromo/Chloro Biphenyl Standards

CIL now offers a selection of labeled and unlabeled mixed halogenated biphenyl standards and standard mixtures. While very limited research has been done to date, these compounds have been identified in environmental matrices, and warrant further investigation.

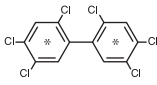
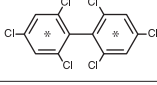
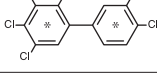
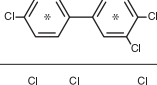
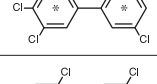

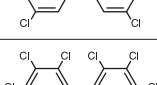
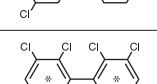
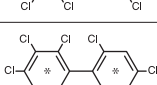
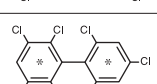
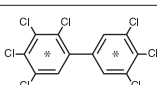
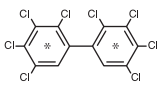
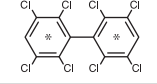
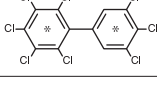
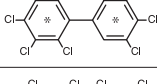
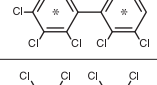
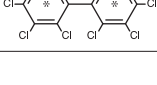
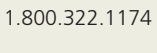
## Isotope Labeled Individual PCB Standards

Catalog #	Compound	IUPAC		Concentration	Amount
CLM-3235-1.2	<b>Biphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>0</b>		100 µg/mL in Nonane	1.2 mL
EC-4908-3 EC-4908-1.2	<b>2-Monochlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>1</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4990-3 EC-4990-1.2	<b>4-Monochlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>3</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4911-3 EC-4911-1.2	<b>2,2'-Dichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>4</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-5095-3 EC-5095-1.2	<b>2,4'-Dichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>8</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4165-3 EC-4165-1.2	<b>2,5-Dichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>9</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1402-3 EC-1402-1.2	<b>4,4'-Dichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>15</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4909-3 EC-4909-1.2	<b>2,2',6-Trichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>19</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1413-3 EC-1413-1.2	<b>2,4,4'-Trichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>28</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4163-3 EC-4163-1.2	<b>2,4',6-Trichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>32</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4901-3 EC-4901-1.2	<b>3,4,4'-Trichlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>37</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1434-3 EC-1434-1.2	<b>2,2',4,4'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>47</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1424-3 EC-1424-1.2	<b>2,2',5,5'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>52</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4912-3 EC-4912-1.2	<b>2,2',6,6'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>54</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4078-3 EC-4078-1.2	<b>2,3,4,4'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>60</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4914-3 EC-4914-1.2	<b>2,3',4',5-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>70</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1404-3 EC-1404-1.2	<b>3,3',4,4'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>77</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL

## Isotope Labeled Individual PCB Standards

Catalog #	Compound	IUPAC		Concentration	Amount
DLM-3063-3 DLM-3063-1.2	<b>3,3',4,4'-Tetrachlorobiphenyl</b> (D <sub>6</sub> ,98%)	<b>77</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-5048-3 EC-5048-1.2	<b>3,3',4,5'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>79</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1414-3 EC-1414-1.2	<b>3,3',5,5'-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>80</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1412-3 EC-1412-1.2	<b>3,4,4',5-Tetrachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>81</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4929-3 EC-4929-1.2	<b>2,2',3,4,4'-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>85</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1428-3 EC-1428-1.2	<b>2,2',3',4,5-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>97</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1405-3 EC-1405-1.2	<b>2,2',4,5,5'-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>101</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4910-3 EC-4910-1.2	<b>2,2',4,6,6'-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>104</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1420-3 EC-1420-1.2	<b>2,3,3',4,4'-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>105</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1415-3 EC-1415-1.2	<b>2,3,3',5,5'-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>111</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4902-3 EC-4902-1.2	<b>2,3,4,4',5-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>114</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1435-3 EC-1435-1.2	<b>2,3',4,4',5-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>118</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-4904-3 EC-4904-1.2	<b>2',3,4,4',5-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>123</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1425-3 EC-1425-1.2	<b>3,3',4,4',5-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>126</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1421-3 EC-1421-1.2	<b>3,3',4,5,5'-Pentachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>127</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1411-3 EC-1411-1.2	<b>2,2',3,3',4,4'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>128</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1436-3 EC-1436-1.2	<b>2,2',3,4,4',5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>138</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1426-3 EC-1426-1.2	<b>2,2',3,4,5,5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>141</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL

## Isotope Labeled Individual PCB Standards

Catalog #	Compound	IUPAC		Concentration	Amount
EC-1406-3 EC-1406-1.2	<b>2,2',4,4',5,5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>153</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4167-3 EC-4167-1.2	<b>2,2',4,4',6,6'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>155</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1422-3 EC-1422-1.2	<b>2,3,3',4,4',5-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>156</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-4051-3 EC-4051-1.2	<b>2,3,3',4,4',5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>157</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
<b>NEW</b> EC-5336-3 <b>NEW</b> EC-5336-1.2	<b>2,3,3',4,5,5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>159</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4050-3 EC-4050-1.2	<b>2,3',4,4',5,5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>167</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1416-3 EC-1416-1.2	<b>3,3',4,4',5,5'-Hexachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>169</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4905-3 EC-4905-1.2	<b>2,2',3,3',4,4',5-Heptachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>170</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1417-3 EC-1417-1.2	<b>2,2',3,3',5,5',6-Heptachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>178</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1407-3 EC-1407-1.2	<b>2,2',3,4,4',5,5'-Heptachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>180</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4913-3 EC-4913-1.2	<b>2,2',3,4',5,6,6'-Heptachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>188</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1409-3 EC-1409-1.2	<b>2,3,3',4,4',5,5'-Heptachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>189</b>		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1418-3 EC-1418-1.2	<b>2,2',3,3',4,4',5,5'-Octachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>194</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1408-3 EC-1408-1.2	<b>2,2',3,3',5,5',6,6'-Octachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>202</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4199-3 EC-4199-1.2	<b>2,3,3',4,4',5,5',6-Octachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>205</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4900-3 EC-4900-1.2	<b>2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>206</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1419-3 EC-1419-1.2	<b>2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>208</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1410-3 EC-1410-1.2 <b>NEW</b> EC-1410-10	<b>Decachlorobiphenyl</b> ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>209</b>		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL 10 mL

## Unlabeled "Certified" Individual PCB Standards

Catalog #	Compound	Concentration	Amount
PCB-1-CS	<b>2-MonoCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-3-CS	<b>4-MonoCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-4-CS	<b>2,2'-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-8-CS	<b>2,4'-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-9-CS	<b>2,5-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-10-CS	<b>2,6-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-11-CS	<b>3,3'-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-12-CS	<b>3,4-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-15-CS	<b>4,4'-DiCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-18-CS	<b>2,2',5-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-19-CS	<b>2,2',6-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-28-CS	<b>2,4,4'-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-30-CS	<b>2,4,6-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-31-CS	<b>2,4',5-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-32-CS	<b>2,4',6-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-33-CS	<b>2',3,4-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-35-CS	<b>3,3',4-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-37-CS	<b>3,4,4'-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-38-CS	<b>3,4,5-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-39-CS	<b>3,4',5-TriCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-44-CS	<b>2,2',3,5'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-47-CS	<b>2,2',4,4'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-49-CS	<b>2,2',4,5'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-52-CS	<b>2,2',5,5'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-54-CS	<b>2,2',6,6'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-57-CS	<b>2,3,3',5-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-60-CS	<b>2,3,4,4'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-66-CS	<b>2,3',4,4'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-70-CS	<b>2,3',4',5-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-74-CS	<b>2,4,4',5-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-77-CS	<b>3,3',4,4'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-78-CS	<b>3,3',4,5-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-79-CS	<b>3,3',4,5'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-80-CS	<b>3,3',5,5'-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-81-CS	<b>3,4,4',5-TetraCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-85-CS	<b>2,2',3,4,4'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-87-CS	<b>2,2',3,4,5'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-95-CS	<b>2,2',3,5',6-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-97-CS	<b>2,2',3',4,5-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-99-CS	<b>2,2',4,4',5-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-101-CS	<b>2,2',4,5,5'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-104-CS	<b>2,2',4,6,6'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-105-CS	<b>2,3,3',4,4'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-110-CS	<b>2,3,3',4',6-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-111-CS	<b>2,3,3',5,5'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-112-CS	<b>2,3,3',5,6-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-114-CS	<b>2,3,4,4',5-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-118-CS	<b>2,3',4,4',5-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-123-CS	<b>2',3,4,4',5-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-126-CS	<b>3,3',4,4',5-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-127-CS	<b>3,3',4,5,5'-PentaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-128-CS	<b>2,2',3,3',4,4'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-138-CS	<b>2,2',3,4,4',5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-141-CS	<b>2,2',3,4,5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-146-CS	<b>2,2',3,4',5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-149-CS	<b>2,2',3,4',5',6-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL

## Unlabeled “Certified” Individual PCB Standards

Catalog #	Compound	Concentration	Amount
PCB-151-CS	<b>2,2',3,5,5',6-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-153-CS	<b>2,2',4,4',5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-155-CS	<b>2,2',4,4',6,6'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-156-CS	<b>2,3,3',4,4',5-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-157-CS	<b>2,3,3',4,4',5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-158-CS	<b>2,3,3',4,4',6-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-159-CS	<b>2,3,3',4,5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-162-CS	<b>2,3,3',4',5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-167-CS	<b>2,3',4,4',5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-169-CS	<b>3,3',4,4',5,5'-HexaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-170-CS	<b>2,2',3,3',4,4',5-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-172-CS	<b>2,2',3,3',4,5,5'-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-174-CS	<b>2,2',3,3',4,5,6'-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-177-CS	<b>2,2',3,3',4',5,6-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-178-CS	<b>2,2',3,3',5,5',6-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-180-CS	<b>2,2',3,4,4',5,5'-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-187-CS	<b>2,2',3,4',5,5',6-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-188-CS	<b>2,2',3,4',5,6,6'-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-189-CS	<b>2,3,3',4,4',5,5'-HeptaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-194-CS	<b>2,2',3,3',4,4',5,5'-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-195-CS	<b>2,2',3,3',4,4',5,6-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-196-CS	<b>2,2',3,3',4,4',5,6'-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-198-CS	<b>2,2',3,3',4,5,5',6-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PCB-199-CS	<b>2,2',3,3',4,5,6,6'-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-201-CS	<b>2,2',3,3',4,5,5',6'-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-202-CS	<b>2,2',3,3',5,5',6,6'-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-203-CS	<b>2,2',3,4,4',5,5',6-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-205-CS	<b>2,3,3',4,4',5,5',6-OctaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-206-CS	<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-208-CS	<b>2,2',3,3',4,5,5',6,6'-NonaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PCB-209-CS	<b>DecaCB</b>	100 ± 5 µg/mL in Isooctane	1.2 mL

## Unlabeled PCB Standards

CIL also offers:

- all 209 PCBs in single-weighed solutions at approximately 35 µg/mL in Isooctane, with chemical purity >95%.
- all 209 PCBs in neat form; typically at nominal weights of 1 or 5 mg.

Please consult the CIL website at [www.isotope.com](http://www.isotope.com) for details, and search for the PCB number in the Catalog Number field.

## U.S. EPA Method 1668A/B Standard Mixtures

Catalog #	Compound	Amount
EC-4976	<b>Method 1668A/B Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
EC-4976-0.2	<b>Method 1668A/B High Sensitivity Calibration Solution [CS0.2]</b> (Not included in EC-4976)	0.2 mL in Nonane
EC-4976-1	<b>Method 1668A/B Calibration Solution [CS1]</b>	0.2 mL in Nonane
EC-4976-2	<b>Method 1668A/B Calibration Solution [CS2]</b>	0.2 mL in Nonane
EC-4976-3	<b>Method 1668A/B Calibration Verification Solution [CS3]</b>	0.2 mL in Nonane
EC-4976-3-4	<b>Method 1668A/B Calibration Verification Solution [CS3]</b>	Set of 4 x 0.2 mL in Nonane
EC-4976-4	<b>Method 1668A/B Calibration Solution [CS4]</b>	0.2 mL in Nonane
EC-4976-5	<b>Method 1668A/B Calibration Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Native Toxics/LOC	IUPAC	CS0.2	CS1	CS2	CS3	CS4	CS5
<b>2-MonoCB</b>	<b>1</b>	0.2	1.0	5.0	50	400	2000
<b>4-MonoCB</b>	<b>3</b>	0.2	1.0	5.0	50	400	2000
<b>2,2'-DiCB</b>	<b>4</b>	0.2	1.0	5.0	50	400	2000
<b>4,4'-DiCB</b>	<b>15</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',6-TriCB</b>	<b>19</b>	0.2	1.0	5.0	50	400	2000
<b>3,4,4'-TriCB</b>	<b>37</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',6,6'-TetraCB</b>	<b>54</b>	0.2	1.0	5.0	50	400	2000
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.2	1.0	5.0	50	400	2000
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',4,6,6'-PentaCB</b>	<b>104</b>	0.2	1.0	5.0	50	400	2000
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	1.0	5.0	50	400	2000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.2	1.0	5.0	50	400	2000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	1.0	5.0	50	400	2000
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.2	1.0	5.0	50	400	2000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',4,4',6,6'-HexaCB</b>	<b>155</b>	0.2	1.0	5.0	50	400	2000
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	1.0	5.0	50	400	2000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.2	1.0	5.0	50	400	2000
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.2	1.0	5.0	50	400	2000
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',3,4',5,6,6'-HeptaCB</b>	<b>188</b>	0.2	1.0	5.0	50	400	2000
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',3,3',5,5',6,6'-OctaCB</b>	<b>202</b>	0.2	1.0	5.0	50	400	2000
<b>2,3,3',4,4',5,5',6-OctaCB</b>	<b>205</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	0.2	1.0	5.0	50	400	2000
<b>2,2',3,3',4,5,5',6,6'-NonaCB</b>	<b>208</b>	0.2	1.0	5.0	50	400	2000
<b>DecaCB</b>	<b>209</b>	0.2	1.0	5.0	50	400	2000

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U.S. EPA Method 1668A/B Standard Mixtures

(continued from previous page)

*All concentrations are in ng/mL (ppb)*

Labeled Toxics/LOC/Window Defining	IUPAC	CS0.2	CS1	CS2	CS3	CS4	CS5
<b>2-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>1L</b>	100	100	100	100	100	100
<b>4-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3L</b>	100	100	100	100	100	100
<b>2,2'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>4L</b>	100	100	100	100	100	100
<b>4,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15L</b>	100	100	100	100	100	100
<b>2,2',6-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>19L</b>	100	100	100	100	100	100
<b>3,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>37L</b>	100	100	100	100	100	100
<b>2,2',6,6'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>54L</b>	100	100	100	100	100	100
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77L</b>	100	100	100	100	100	100
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81L</b>	100	100	100	100	100	100
<b>2,2',4,6,6'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>104L</b>	100	100	100	100	100	100
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105L</b>	100	100	100	100	100	100
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114L</b>	100	100	100	100	100	100
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118L</b>	100	100	100	100	100	100
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123L</b>	100	100	100	100	100	100
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126L</b>	100	100	100	100	100	100
<b>2,2',4,4',6,6'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>155L</b>	100	100	100	100	100	100
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156L</b>	100	100	100	100	100	100
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157L</b>	100	100	100	100	100	100
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167L</b>	100	100	100	100	100	100
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169L</b>	100	100	100	100	100	100
<b>2,2',3,4',5,6,6'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>188L</b>	100	100	100	100	100	100
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189L</b>	100	100	100	100	100	100
<b>2,2',3,3',5,5',6,6'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>202L</b>	100	100	100	100	100	100
<b>2,3,3',4,4',5,5',6-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>205L</b>	100	100	100	100	100	100
<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206L</b>	100	100	100	100	100	100
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208L</b>	100	100	100	100	100	100
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209L</b>	100	100	100	100	100	100
Labeled Cleanup							
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28L</b>	100	100	100	100	100	100
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111L</b>	100	100	100	100	100	100
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178L</b>	100	100	100	100	100	100
Labeled Injection Internal							
<b>2,5-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>9L</b>	100	100	100	100	100	100
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52L</b>	100	100	100	100	100	100
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101L</b>	100	100	100	100	100	100
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138L</b>	100	100	100	100	100	100
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194L</b>	100	100	100	100	100	100



## U.S. EPA Method 1668A/B Standard Mixtures

Catalog #	Compound	Amount
EC-4977	<b>Method 1668A/B Labeled Toxics/LOC/Window Defining Solution</b>	1.2 mL in Nonane
EC-4977-5	<b>Method 1668A/B Labeled Toxics/LOC/Window Defining Solution</b>	5 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>2-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>1L</b>	1000
<b>4-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3L</b>	1000
<b>2,2'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>4L</b>	1000
<b>4,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15L</b>	1000
<b>2,2',6-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>19L</b>	1000
<b>3,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>37L</b>	1000
<b>2,2',6,6'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>54L</b>	1000
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77L</b>	1000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81L</b>	1000
<b>2,2',4,6,6'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>104L</b>	1000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105L</b>	1000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114L</b>	1000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118L</b>	1000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123L</b>	1000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126L</b>	1000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>155L</b>	1000
<b>2,2',4,4',6,6'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156L</b>	1000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157L</b>	1000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167L</b>	1000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169L</b>	1000
<b>2,2',3,4',5,6,6'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>188L</b>	1000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189L</b>	1000
<b>2,2',3,3',5,5',6,6'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>202L</b>	1000
<b>2,3,3',4,4',5,5',6-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>205L</b>	1000
<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206L</b>	1000
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208L</b>	1000
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209L</b>	1000

EC-4978	<b>Method 1668A/B Labeled Cleanup Standard Solution</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28L</b>	1000
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111L</b>	1000
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178L</b>	1000

EC-4979	<b>Method 1668A/B Labeled Injection Internal Standard Solution</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>2,5-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>9L</b>	5000
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52L</b>	5000
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101L</b>	5000
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138L</b>	5000
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194L</b>	5000

## U.S. EPA Method 1668A/B Standard Mixtures

Catalog #	Compound	Amount
EC-4989	<b>Method 1668A/B Native Toxics/LOC Solution</b>	1.2 mL in Nonane

Unlabeled	IUPAC	(ng/mL)
<b>2-MonoCB</b>	<b>1</b>	2000
<b>4-MonoCB</b>	<b>3</b>	2000
<b>2,2'-DiCB</b>	<b>4</b>	2000
<b>4,4'-DiCB</b>	<b>15</b>	2000
<b>2,2',6-TriCB</b>	<b>19</b>	2000
<b>3,4,4'-TriCB</b>	<b>37</b>	2000
<b>2,2',6,6'-TetraCB</b>	<b>54</b>	2000
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	2000
<b>3,4,4',5-TetraCB</b>	<b>81</b>	2000
<b>2,2',4,6,6'-PentaCB</b>	<b>104</b>	2000
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	2000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	2000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	2000
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	2000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	2000
<b>2,2',4,4',6,6'-HexaCB</b>	<b>155</b>	2000
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	2000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	2000
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	2000
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	2000
<b>2,2',3,4',5,6,6'-HeptaCB</b>	<b>188</b>	2000
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	2000
<b>2,2',3,3',5,5',6,6'-OctaCB</b>	<b>202</b>	2000
<b>2,3,3',4,4',5,5',6-OctaCB</b>	<b>205</b>	2000
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	2000
<b>2,2',3,3',4,5,5',6,6'-NonaCB</b>	<b>208</b>	2000
<b>DecaCB</b>	<b>209</b>	2000

## CEN Method EN-1948-4 WHO PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5380	<b>EN-1948-4 WHO PCB Calibration Series [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5380-CS1	<b>EN-1948-4 WHO PCB Calibration Series [CS1]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5380-CS2	<b>EN-1948-4 WHO PCB Calibration Series [CS2]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5380-CS3	<b>EN-1948-4 WHO PCB Calibration Series [CS3]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5380-CS4	<b>EN-1948-4 WHO PCB Calibration Series [CS4]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5380-CS5	<b>EN-1948-4 WHO PCB Calibration Series [CS5]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5380-CS6	<b>EN-1948-4 WHO PCB Calibration Series [CS6]</b>	0.2 mL in Nonane/Isooctane

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.1	1	10	50	200	800
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.1	1	10	50	200	800
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.1	1	10	50	200	800
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.1	1	10	50	200	800
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.1	1	10	50	200	800
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.1	1	10	50	200	800
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.6	6	60	300	1200	4800
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.1	1	10	50	200	800
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.1	1	10	50	200	800
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.1	1	10	50	200	800
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.1	1	10	50	200	800
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.1	1	10	50	200	800
Labeled Sampling Standards							
<b>2,3,4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>60</b>	10	10	10	10	10	10
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	10	10	10	10	10	10
<b>2,3,3',4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>159</b>	10	10	10	10	10	10
Labeled Extraction Standards							
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	10	10	10	10	10	10
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10	10
Labeled Recovery Standards							
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10	10

## CEN Method EN-1948-4 WHO PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5370	<b>EN-1948-4 PCB Sampling Standard</b>	1.2 mL in Nonane
<b>NEW</b> EC-5370-1/10X-10	<b>EN-1948-4 PCB Sampling Standard (1/10 concentration)</b>	10 mL in Nonane

Labeled	IUPAC	EC-5370 (ng/mL)	EC-5370-1/10X-10 (ng/mL)
<b>2,3,4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>60</b>	100	10
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	100	10
<b>2,3,3',4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>159</b>	100	10

<b>NEW</b> EC-5372	<b>EN-1948-4 WHO PCB Extraction Standard</b>	1.2 mL in Nonane
<b>NEW</b> EC-5372-1/10X-10	<b>EN-1948-4 WHO PCB Extraction Standard (1/10 concentration)</b>	10 mL in Nonane

Labeled		EC-5372	EC-5372-1/10X-10
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	100	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	100	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	100	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	100	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	100	10
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	100	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	100	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	100	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	100	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	100	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	100	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	100	10

<b>NEW</b> EC-5371	<b>EN-1948-4 PCB Recovery Standard</b>	1.2 mL in Nonane
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Labeled		
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	100
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	100
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	100

## CEN Method EN-1948-4 Marker PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5385	<b>EN-1948-4 Marker PCB Calibration Series [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5385-CS1	<b>EN-1948-4 Marker PCB Calibration Series [CS1]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5385-CS2	<b>EN-1948-4 Marker PCB Calibration Series [CS2]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5385-CS3	<b>EN-1948-4 Marker PCB Calibration Series [CS3]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5385-CS4	<b>EN-1948-4 Marker PCB Calibration Series [CS4]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5385-CS5	<b>EN-1948-4 Marker PCB Calibration Series [CS5]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5385-CS6	<b>EN-1948-4 Marker PCB Calibration Series [CS6]</b>	0.2 mL in Nonane/Isooctane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
<b>2,4,4'-TriCB</b>	<b>28</b>	0.1	1	10	100	500	5000
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	0.1	1	10	100	500	5000
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	0.1	1	10	100	500	5000
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	0.1	1	10	100	500	5000
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	0.1	1	10	100	500	5000
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.1	1	10	100	500	5000
Labeled Sampling Standards							
<b>2,3,4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>60</b>	10	10	10	10	10	10
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	10	10	10	10	10	10
<b>2,3,3',4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>159</b>	10	10	10	10	10	10
Labeled Extraction Standards							
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	100	100	100	100	100	100
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	100	100	100	100	100	100
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	100	100	100	100	100	100
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	100	100	100	100	100	100
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	100	100	100	100	100	100
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	100	100	100	100	100	100
Labeled Recovery Standards							
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10	10

<b>NEW</b> EC-5379	<b>EN-1948-4 Marker PCB Extraction Standard</b>	1.2 mL in Nonane
<b>NEW</b> EC-5379-5X1.2	<b>EN-1948-4 Marker PCB Extraction Standard</b>	5 x 1.2 mL in Nonane
<b>NEW</b> EC-5379-1/10X-10	<b>EN-1948-4 Marker PCB Extraction Standard (1/10 concentration)</b>	10 mL in Nonane

Labeled		EC-5379 (ng/mL)	EC-5379-1/10X-10 (ng/mL)
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	1000	100
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	1000	100
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	1000	100
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	1000	100
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	1000	100
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	1000	100

<b>NEW</b> EC-5370	<b>EN-1948-4 PCB Sampling Standard</b>	1.2 mL in Nonane
<b>NEW</b> EC-5370-1/10X-10	<b>EN-1948-4 PCB Sampling Standard (1/10 concentration)</b>	10 mL in Nonane

Labeled		EC-5370	EC-5370-1/10X-10
<b>2,3,4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>60</b>	100	10
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	100	10
<b>2,3,3',4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	100	10

<b>NEW</b> EC-5371	<b>EN-1948-4 PCB Recovery Standard</b>	1.2 mL in Nonane
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Labeled		
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	100
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	100
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	100

## JIS PCB Methods Standard Mixtures

Catalog #	Compound	Amount
EC-5033	<b>JIS PCB Calibration Solutions: low concentration [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
EC-5033-1	<b>JIS PCB Calibration Solution: low concentration [CS1]</b>	0.2 mL in Nonane
EC-5033-2	<b>JIS PCB Calibration Solution: low concentration [CS2]</b>	0.2 mL in Nonane
EC-5033-3	<b>JIS PCB Calibration Solution: low concentration [CS3]</b>	0.2 mL in Nonane
EC-5033-4	<b>JIS PCB Calibration Solution: low concentration [CS4]</b>	0.2 mL in Nonane
EC-5033-5	<b>JIS PCB Calibration Solution: low concentration [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	1	5	25	100	500
<b>3,4,4',5-TetraCB</b>	<b>81</b>	1	5	25	100	500
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	1	5	25	100	500
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	1	5	25	100	500
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	1	5	25	100	500
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	1	5	25	100	500
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	1	5	25	100	500
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	1	5	25	100	500
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	1	5	25	100	500
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	1	5	25	100	500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	1	5	25	100	500
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	1	5	25	100	500
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	1	5	25	100	500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	1	5	25	100	500
Labeled						
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10

EC-4970-A	<b>JIS PCB Type 1 Syringe Standard Solution</b>	3 mL in Nonane
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Labeled	(ng/mL)
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>
	2000

## JIS PCB Methods Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5323-H	<b>Modified JIS PCB Calibration Solutions [CS1H-CS5H]</b>	Set of 5 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-H-E	<b>Modified JIS PCB Extended Calibration Solutions [CS0.4H-CS6H]</b>	Set of 7 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS0.4H	<b>Modified JIS PCB Extended Calibration Solution [CS0.4]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS1H	<b>Modified JIS PCB Extended Calibration Solution [CS1]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS2H	<b>Modified JIS PCB Extended Calibration Solution [CS2]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS3H	<b>Modified JIS PCB Extended Calibration Solution [CS3]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS4H	<b>Modified JIS PCB Extended Calibration Solution [CS4]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS5H	<b>Modified JIS PCB Extended Calibration Solution [CS5]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5323-CS6H	<b>Modified JIS PCB Extended Calibration Solution [CS6]</b>	0.2 mL in Nonane/Isooctane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS0.4H	CS1H	CS2H	CS3H	CS4H	CS5H	CS6H
<b>3,4,4',5'-TetraCB</b>	<b>81</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5'-PentaCB</b>	<b>126</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.1	0.25	1	5	20	100	500
<b>2',3,4,4',5'-PentaCB</b>	<b>123</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5'-PentaCB</b>	<b>118</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.1	0.25	1	5	20	100	500
<b>2,3,4,4',5'-PentaCB</b>	<b>114</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5'-HexaCB</b>	<b>156</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.1	0.25	1	5	20	100	500
<b>2,2',3,3',4,4',5'-HeptaCB</b>	<b>170</b>	0.1	0.25	1	5	20	100	500
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.1	0.25	1	5	20	100	500
Labeled								
<b>3,4,4',5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10	10	10
<b>3,3',4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10	10	10
<b>2',3,4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10	10	10
<b>2,3',4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	20	20	20	20	20	20	20
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	20	20	20	20	20	20	20
<b>2,3,4,4',5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	20	20	20	20	20	20	20
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10	10	10
<b>2,2',3,3',4,4',5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10	10	10	10
<b>2,3',4',5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	10	10	10	10	10	10	10
<b>2,2',3,3',5,5',6'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	10	10	10	10	10	10	10
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	10	10	10	10	10	10	10

## JIS PCB Methods Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5324	<b>Modified JIS PCB Cleanup Spike</b>	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	50
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	50
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	50
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	100
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	50
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	100
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	50
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	50
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	100
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	50
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	50
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	50
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	50
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	50

<b>NEW</b> EC-5325	<b>Modified JIS PCB Syringe Spike</b>	1.2 mL in Nonane
<b>NEW</b> EC-5325-0.2X	<b>Modified JIS PCB Syringe Spike</b>	10 mL in Nonane
<b>NEW</b> EC-5325-20X	<b>Modified JIS PCB Syringe Spike</b>	1.2 mL in Nonane

Labeled		EC-5325	EC-5325-0.2X	EC-5325-20X
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	50	10	1000
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	50	10	1000
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	50	10	1000
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	50	10	1000

<b>NEW</b> EC-5326	<b>Modified JIS PCB Sampling Spike</b>	1.2 mL in Nonane
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Labeled		
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	50



## JIS PCB Methods Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5360	<b>Modified JIS PCB Alternate A Extended Calibration Solutions [CS0.4H-CS6H]</b>	Set of 7 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS0.4H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS0.4H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS1H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS1H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS2H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS2H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS3H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS3H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS4H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS4H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS5H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS5H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5360-CS6H	<b>Modified JIS PCB Alternate A Extended Calibration Solution [CS6H]</b>	0.2 mL in Nonane/Isooctane

Unlabeled	IUPAC	CS0.4	CS1	CS2	CS3	CS4	CS5	CS6
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.1	0.25	1	5	20	100	500
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.1	0.25	1	5	20	100	500
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.1	0.25	1	5	20	100	500
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.1	0.25	1	5	20	100	500
Labeled								
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	20	20	20	20	20	20	20
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	20	20	20	20	20	20	20
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	20	20	20	20	20	20	20
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	10	10	10	10	10	10	10
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	10	10	10	10	10	10	10
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	10	10	10	10	10	10	10

## JIS PCB Methods Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5418	<b>Modified JIS PCB Alternate B Calibration Solutions [CS1H-CS5H]</b>	Set of 5 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS0.4H	<b>Modified JIS PCB Alternate B Calibration Solution [CS0.4H]</b> (Not included with EC-5418)	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS6H	<b>Modified JIS PCB Alternate B Calibration Solution [CS6H]</b> (Not included with EC-5418)	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS1H	<b>Modified JIS PCB Alternate B Calibration Solution [CS1H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS2H	<b>Modified JIS PCB Alternate B Calibration Solution [CS2H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS3H	<b>Modified JIS PCB Alternate B Calibration Solution [CS3H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS4H	<b>Modified JIS PCB Alternate B Calibration Solution [CS4H]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5418-CS5H	<b>Modified JIS PCB Alternate B Calibration Solution [CS5H]</b>	0.2 mL in Nonane/Isooctane

*All concentrations are in ng/mL (ppb)*

Unlabeled	IUPAC	CS0.4	CS1	CS2	CS3	CS4	CS5	CS6
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.1	0.25	1	5	20	100	500
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.1	0.25	1	5	20	100	500
Labeled								
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	4	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	4	10	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	4	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	4	10	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	4	10	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	8	20	20	20	20	20	20
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	8	20	20	20	20	20	20
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	4	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	4	10	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	8	20	20	20	20	20	20
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	4	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	4	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	4	10	10	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	4	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	4	10	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	4	10	10	10	10	10	10
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	4	10	10	10	10	10	10

## JIS PCB Methods Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5419	<b>Modified JIS PCB Alternate B Cleanup Solution</b>	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	50
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	50
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	50
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	100
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	50
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	100
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	50
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	50
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	100
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	50
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	50
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	50

<b>NEW</b> EC-5420	<b>Modified JIS PCB Alternate B Syringe Spike</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	50
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	50
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	50
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	50

## WHO "Dioxin-Like" PCB Mixtures

Catalog #	Compound	Amount
EC-4939	<b>WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Set [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-4939-1	<b>WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Solution [CS1]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-4939-2	<b>WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Solution [CS2]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-4939-3	<b>WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Solution [CS3]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-4939-4	<b>WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Solution [CS4]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-4939-5	<b>WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Solution [CS5]</b>	0.2 mL in Nonane/Isooctane

*All concentrations are in ng/mL (ppb)*

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	1	5	25	100	500
<b>3,4,4',5-TetraCB</b>	<b>81</b>	1	5	25	100	500
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	1	5	25	100	500
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	1	5	25	100	500
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	1	5	25	100	500
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	1	5	25	100	500
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	1	5	25	100	500
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	1	5	25	100	500
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	1	5	25	100	500
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	1	5	25	100	500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	1	5	25	100	500
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	1	5	25	100	500
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	1	5	25	100	500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	1	5	25	100	500
<b>Labeled</b>						
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	100	100	100	100	100
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	100	100	100	100	100
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	100	100	100	100	100
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	100	100	100	100	100
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	100	100	100	100	100
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	100	100	100	100	100
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	100	100	100	100	100
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	100	100	100	100	100
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	100	100	100	100	100
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	100	100	100	100	100
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	100	100	100	100	100
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	100	100	100	100	100
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	100	100	100	100	100
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	100	100	100	100	100

WHO “Dioxin-Like” PCB Mixtures

Catalog #	Compound	Amount
EC-5186	<b>WHO PCB + PCB-170 + PCB-180 + Syringe PCB Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane/Isooctane
EC-5186-CS1	<b>WHO PCB + PCB-170 + PCB-180 + Syringe PCB Solution [CS1]</b>	0.2 mL in Nonane/Isooctane
EC-5186-CS2	<b>WHO PCB + PCB-170 + PCB-180 + Syringe PCB Solution [CS2]</b>	0.2 mL in Nonane/Isooctane
EC-5186-CS3	<b>WHO PCB + PCB-170 + PCB-180 + Syringe PCB Solution [CS3]</b>	0.2 mL in Nonane/Isooctane
EC-5186-CS4	<b>WHO PCB + PCB-170 + PCB-180 + Syringe PCB Solution [CS4]</b>	0.2 mL in Nonane/Isooctane
EC-5186-CS5	<b>WHO PCB + PCB-170 + PCB-180 + Syringe PCB Solution [CS5]</b>	0.2 mL in Nonane/Isooctane

*All concentrations are in ng/mL (ppb)*

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.5	2	10	50	250
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.5	2	10	50	250
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.5	2	10	50	250
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.5	2	10	50	250
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.5	2	10	50	250
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.5	2	10	50	250
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.5	2	10	50	250
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.5	2	10	50	250
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.5	2	10	50	250
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.5	2	10	50	250
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.5	2	10	50	250
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.5	2	10	50	250
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.5	2	10	50	250
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.5	2	10	50	250
Labeled						
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	10	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10	10	10	10	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	10	10	10	10	10
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	10	10	10	10	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10

## WHO "Dioxin-Like" PCB Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5044	<b>WHO PCB + PCB-170 + PCB-180 Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5044-CS1	<b>WHO PCB + PCB-170 + PCB-180 Calibration Solution [CS1]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5044-CS2	<b>WHO PCB + PCB-170 + PCB-180 Calibration Solution [CS2]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5044-CS3	<b>WHO PCB + PCB-170 + PCB-180 Calibration Solution [CS3]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5044-CS4	<b>WHO PCB + PCB-170 + PCB-180 Calibration Solution [CS4]</b>	0.2 mL in Nonane/Isooctane
<b>NEW</b> EC-5044-CS5	<b>WHO PCB + PCB-170 + PCB-180 Calibration Solution [CS5]</b>	0.2 mL in Nonane/Isooctane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.4	2	10	40	200
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.4	2	10	40	200
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.4	2	10	40	200
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.4	2	10	40	200
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.4	2	10	40	200
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.4	2	10	40	200
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.4	2	10	40	200
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.4	2	10	40	200
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.4	2	10	40	200
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.4	2	10	40	200
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.4	2	10	40	200
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.4	2	10	40	200
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.4	2	10	40	200
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.4	2	10	40	200
Labeled						
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	20	20	20	20	20
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	20	20	20	20	20
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	20	20	20	20	20
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	20	20	20	20	20
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	20	20	20	20	20
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	20	20	20	20	20
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	20	20	20	20	20
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	20	20	20	20	20
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	20	20	20	20	20
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	20	20	20	20	20
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	20	20	20	20	20
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	20	20	20	20	20
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	20	20	20	20	20
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	20	20	20	20	20
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	20	20	20	20	20
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	20	20	20	20	20
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	20	20	20	20	20
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	20	20	20	20	20

See page 40 for **EDF-5393 Dioxin Cleanup Spike**

WHO "Dioxin-Like" PCB Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5315	<b>WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solutions (low) [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EC-5315-1	<b>WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5315-2	<b>WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5315-3	<b>WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5315-4	<b>WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5315-5	<b>WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.2	1	5	20	100
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.2	1	5	20	100
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	1	5	20	100
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.2	1	5	20	100
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	1	5	20	100
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.2	1	5	20	100
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.2	1	5	20	100
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	1	5	20	100
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.2	1	5	20	100
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.2	1	5	20	100
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.2	1	5	20	100
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.2	1	5	20	100
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.2	1	5	20	100
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.2	1	5	20	100
Labeled						
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	10	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	10	10	10	10	10
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	10	10	10	10	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10

WHO “Dioxin-Like” PCB Mixtures

Catalog #	Compound	Amount
NEW EC-5396	<b>Co-PCB Calibration Solutions [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane
NEW EC-5396-CS1	<b>Co-PCB Calibration Solution [CS1]</b>	0.2 mL in Nonane
NEW EC-5396-CS2	<b>Co-PCB Calibration Solution [CS2]</b>	0.2 mL in Nonane
NEW EC-5396-CS3	<b>Co-PCB Calibration Solution [CS3]</b>	0.2 mL in Nonane
NEW EC-5396-CS4	<b>Co-PCB Calibration Solution [CS4]</b>	0.2 mL in Nonane
NEW EC-5396-CS5	<b>Co-PCB Calibration Solution [CS5]</b>	0.2 mL in Nonane
NEW EC-5396-CS6	<b>Co-PCB Calibration Solution [CS6]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.2	0.5	2	10	50	200
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.2	0.5	2	10	50	200
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.2	0.5	2	10	50	200
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.2	0.5	2	10	50	200
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.2	0.5	2	10	50	200
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	0.5	2	10	50	200
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	0.5	2	10	50	200
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.2	0.5	2	10	50	200
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.2	0.5	2	10	50	200
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	0.5	2	10	50	200
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.2	0.5	2	10	50	200
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.2	0.5	2	10	50	200
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.2	0.5	2	10	50	200
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.2	0.5	2	10	50	200
Labeled							
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10	10
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10	10	10	10	10	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	10	10	10	10	10	10
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	10	10	10	10	10	10
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	10	10	10	10	10	10
<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	10	10	10	10	10	10



## WHO "Dioxin-Like" PCB Mixtures

Catalog #	Compound	Amount
EC-4937	<b>WHO Coplanar and Mono-Ortho PCBs</b>	3 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	1000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	1000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	1000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	1000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	1000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	1000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	1000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	1000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	1000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	1000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	1000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	1000

EC-4995	<b>WHO Coplanar and Mono-Ortho PCBs with PCB 170/180</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	1000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	1000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	1000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	1000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	1000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	1000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	1000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	1000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	1000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	1000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	1000
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	1000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	1000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	1000

EC-5045	<b>WHO PCB + PCB-170 + PCB-180 Cleanup Standard</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	2000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	2000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	2000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	2000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	2000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	2000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	2000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	2000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	2000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	2000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	2000
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	2000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	2000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	2000

## WHO "Dioxin-Like" PCB Mixtures

Catalog #	Compound	Amount	
<b>NEW</b> EC-5047	<b>WHO PCB and PCB-170/180 Sampling Standard</b>	1.2 mL in Nonane	
<b>NEW</b> EC-5180	<b>PCB Sampling Spike</b>	1.2 mL in Nonane	
	Labeled	IUPAC	EC-5047 (ng/mL)
	<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b>	2000
			EC-5180 (ng/mL)
			100
<b>NEW</b> EC-5181	<b>PCB Syringe Spike</b>	1.2 mL in Nonane	
<b>NEW</b> EC-5181-10X-1.2	<b>PCB Syringe Spike</b>	1.2 mL in Nonane	
	Labeled	EC-5181	EC-5181-10X-1.2
	<b>2,3',4',5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	100
	<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	100
	<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	100
			1000
			1000
			1000
<b>NEW</b> EC-5397	<b>Co-PCB Syringe Spike</b>	1.2 mL in Nonane	
	Labeled		
	<b>2,3',4',5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	20
	<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	20
	<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	20
	<b>2,2',3,3',5,5',6'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	20
EC-4935	<b>WHO Coplanar and Mono-Ortho PCBs</b>	1.2 mL in Isooctane	
EC-4935-A	<b>WHO Coplanar and Mono-Ortho PCBs</b>	3 mL in Isooctane	
	Unlabeled	EC-4935	EC-4935-A
	<b>3,3',4,4'-TetraCB</b>	<b>77</b>	2000
	<b>3,4,4',5'-TetraCB</b>	<b>81</b>	2000
	<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	2000
	<b>2,3,4,4',5'-PentaCB</b>	<b>114</b>	2000
	<b>2,3',4,4',5'-PentaCB</b>	<b>118</b>	2000
	<b>2',3,4,4',5'-PentaCB</b>	<b>123</b>	2000
	<b>3,3',4,4',5'-PentaCB</b>	<b>126</b>	2000
	<b>2,3,3',4,4',5'-HexaCB</b>	<b>156</b>	2000
	<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	2000
	<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	2000
	<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	2000
	<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	2000
EC-5000	<b>WHO Coplanar and Mono-Ortho PCBs and 170/180</b>	1.2 mL in Isooctane	
	Unlabeled		
	<b>3,3',4,4'-TetraCB</b>	<b>77</b>	2000
	<b>3,4,4',5'-TetraCB</b>	<b>81</b>	2000
	<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	2000
	<b>2,3,4,4',5'-PentaCB</b>	<b>114</b>	2000
	<b>2,3',4,4',5'-PentaCB</b>	<b>118</b>	2000
	<b>2',3,4,4',5'-PentaCB</b>	<b>123</b>	2000
	<b>3,3',4,4',5'-PentaCB</b>	<b>126</b>	2000
	<b>2,3,3',4,4',5'-HexaCB</b>	<b>156</b>	2000
	<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	2000
	<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	2000
	<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	2000
	<b>2,2',3,3',4,4',5'-HeptaCB</b>	<b>170</b>	2000
	<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	2000
	<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	2000

Dioxin-Like PCB RH12 Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5421-H-E	<b>DL-PCB RH12 Extended Calibration Solutions [CS0.4H-CS6H]</b>	Set of 7 x 0.2 mL in Nonane
<b>NEW</b> EC-5421-H	<b>DL-PCB RH12 Calibration Solutions [CS1H-CS5H]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EC-5421-CS0.4H	<b>DL-PCB RH12 Extended Calibration Solution [CS0.4H]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5421-CS1H	<b>DL-PCB RH12 Calibration Solution [CS1H]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5421-CS2H	<b>DL-PCB RH12 Calibration Solution [CS2H]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5421-CS3H	<b>DL-PCB RH12 Calibration Solution [CS3H]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5421-CS4H	<b>DL-PCB RH12 Calibration Solution [CS4H]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5421-CS5H	<b>DL-PCB RH12 Calibration Solution [CS5H]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5421-CS6H	<b>DL-PCB RH12 Extended Calibration Solution [CS6H]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS0.4	CS1	CS2	CS3	CS4	CS5	CS6
<b>3,4,4',5-TetraCB</b>	<b>81</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	0.1	0.25	1	5	20	100	500
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	0.5	2	10	40	200	1000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	0.1	0.25	1	5	20	100	500
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	0.5	2	10	40	200	1000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.1	0.25	1	5	20	100	500
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.1	0.25	1	5	20	100	500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	0.1	0.25	1	5	20	100	500
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.1	0.25	1	5	20	100	500
<b>2,3,3',4,4',5'-HeptaCB</b>	<b>189</b>	0.1	0.25	1	5	20	100	500
<b>Labeled</b>								
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	10	10	10	10	10	10	10
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	10	10	10	10	10	10	10
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	10	10	10	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	20	20	20	20	20	20	20
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	20	20	20	20	20	20	20
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	10	10	10	10	10	10	10
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	20	20	20	20	20	20	20
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	10	10	10	10	10	10	10
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	10	10	10	10	10	10	10
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	10	10	10	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10	10	10	10
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	10	10	10	10	10	10	10
<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b>	10	10	10	10	10	10	10
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	10	10	10	10	10	10	10
<b>2,3,4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>60</b>	10	10	10	10	10	10	10
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	10	10	10	10	10	10	10
<b>2,3,3',4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>159</b>	10	10	10	10	10	10	10

## Dioxin-Like PCB RH12 Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5422	<b>DL-PCB RH12 Extraction Spike</b>	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	100
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	100
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	100
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	200
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	100
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	200
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	100
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	100
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	200
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	100
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	100
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	100
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	100

<b>NEW</b> EC-5424	<b>DL-PCB RH12 Sampling Spike</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>2,3,4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>60</b>	100
<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b>	100
<b>2,3,3',4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>159</b>	100

<b>NEW</b> EC-5423	<b>DL-PCB RH12 Syringe Spike</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	100
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	100
<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b>	100
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	100

## WHO “Non-Dioxin-Like” Marker PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4058	<b>PCB Mixture</b>	3 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	5000
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	5000
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	5000
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	5000
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	5000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	5000
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	5000

EC-5179	<b>Unlabeled PCB Mixture</b>	3 mL in Isooctane
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Unlabeled	IUPAC	(ng/mL)
<b>2,4,4'-TriCB</b>	<b>28</b>	5000
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	5000
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	5000
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	5000
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	5000
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	5000
<b>DecaCB</b>	<b>209</b>	5000

See also **EN-1948-4 PCB Standard Mixtures**, pp. 76-78.

## Rapid PCB Screening Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5448	<b>Rapid PCB Screening Calibration Solutions [CS1-CS4]</b>	Set of 4 x 0.2 mL in Nonane
<b>NEW</b> EC-5448-CS1	<b>Rapid PCB Screening Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5448-CS2	<b>Rapid PCB Screening Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5448-CS3	<b>Rapid PCB Screening Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5448-CS4	<b>Rapid PCB Screening Calibration Solution [CS4]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4
<b>2,4,4'-TriCB</b>	<b>28</b>	1	5	10	50
<b>2,2',5-TriCB</b>	<b>18</b>	1	5	10	50
<b>2,2',3,5'-TetraCB</b>	<b>44</b>	1	5	10	50
<b>2,3',4',5-TetraCB</b>	<b>70</b>	1	5	10	50
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	1	5	10	50
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	1	5	10	50
<b>2,3,3',4',6-PentaCB</b>	<b>110</b>	1	5	10	50
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	1	5	10	50
<b>2,2',3,4',5',6-HexaCB</b>	<b>149</b>	1	5	10	50
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	1	5	10	50
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	1	5	10	50
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	1	5	10	50
<b>2,2',3,4',5,5',6-HeptaCB</b>	<b>187</b>	1	5	10	50
Labeled					
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	10	10	10	10
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	10	10	10	10
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	10	10	10	10
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	10	10	10	10
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	10	10	10	10
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	10	10	10	10
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	10	10	10	10
<b>2,2',3,4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>141</b>	10	10	10	10
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	10	10	10	10

<b>NEW</b> EC-5450	<b>Rapid PCB Screening Syringe Spike</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>
<b>2,2',3,4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>141</b>

<b>NEW</b> EC-5453	<b>Rapid PCB Screening Native PAR Solution</b>	0.5 mL in Nonane
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Unlabeled	
<b>2,4,4'-TriCB</b>	<b>28</b>
<b>2,2',5-TriCB</b>	<b>18</b>
<b>2,2',3,5'-TetraCB</b>	<b>44</b>
<b>2,3',4',5-TetraCB</b>	<b>70</b>
<b>2,2',5,5'-TetraCB</b>	<b>52</b>
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>
<b>2,3,3',4',6-PentaCB</b>	<b>110</b>
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>
<b>2,2',3,4',5',6-HexaCB</b>	<b>149</b>
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>
<b>2,2',3,4',5,5',6-HeptaCB</b>	<b>187</b>

Mono-Deca plus Predominant PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5414	<b>Mono-Deca plus Predominant PCB Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EC-5414-CS1	<b>Mono-Deca plus Predominant PCB Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5414-CS2	<b>Mono-Deca plus Predominant PCB Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5414-CS3	<b>Mono-Deca plus Predominant PCB Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5414-CS4	<b>Mono-Deca plus Predominant PCB Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EC-5414-CS5	<b>Mono-Deca plus Predominant PCB Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
<b>4-MonoCB</b>	<b>3</b>	4	20	100	500	2000
<b>2,4'-DiCB</b>	<b>8</b>	4	20	100	500	2000
<b>2,4,4'-TriCB</b>	<b>28</b>	2	10	50	250	1000
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	2	10	50	250	1000
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	2	10	50	250	1000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	2	10	50	250	1000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	2	10	50	250	1000
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	2	10	50	250	1000
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	2	10	50	250	1000
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	2	10	50	250	1000
<b>2,2',3,3',4,4',5,5'-OctaCB</b>	<b>194</b>	4	20	100	500	2000
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	4	20	100	500	2000
<b>DecaCB</b>	<b>209</b>	4	20	100	500	2000
Labeled						
<b>4-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b>	100	100	100	100	100
<b>2,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>8</b>	100	100	100	100	100
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	100	100	100	100	100
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	100	100	100	100	100
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	100	100	100	100	100
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	100	100	100	100	100
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	100	100	100	100	100
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	100	100	100	100	100
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	100	100	100	100	100
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	100	100	100	100	100
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194</b>	100	100	100	100	100
<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	100	100	100	100	100
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	100	100	100	100	100
<b>2,4',6-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>32</b>	100	100	100	100	100
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	100	100	100	100	100
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	100	100	100	100	100
<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b>	100	100	100	100	100
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	100	100	100	100	100

<b>NEW</b> EC-5411	<b>Predominant Mono-Deca PCB Spike</b>	1.2 mL in Nonane
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Labeled		(ng/mL)
<b>4-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b>	2000
<b>2,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>8</b>	2000
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	2000
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	2000
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	2000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	2000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	2000
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	2000
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	2000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	2000
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194</b>	2000
<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	2000
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	2000

## Mono-Deca plus Predominant PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5415	<b>Mono-Deca plus Predominant PCB Syringe Spike</b>	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>2,4',6-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>32</b>	2000
<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	2000
<b>3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>127</b>	2000
<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b>	2000
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	2000

<b>NEW</b> EC-5412	<b>Native Predominant Mono-Deca PCBs (unlabeled)</b>	1.2 mL in Isooctane
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Unlabeled		
<b>4-MonoCB</b>	<b>3</b>	2000
<b>2,4'-DiCB</b>	<b>8</b>	2000
<b>2,4,4'-TriCB</b>	<b>28</b>	2000
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	2000
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	2000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	2000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	2000
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	2000
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	2000
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	2000
<b>2,2',3,3',4,4',5,5'-OctaCB</b>	<b>194</b>	2000
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	2000
<b>DecaCB</b>	<b>209</b>	2000

<b>NEW</b> EC-4189-A	<b>Mono-Deca PCB Mixture</b>	3 mL in Nonane
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Labeled		
<b>4-MonoCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b>	1000
<b>4,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	1000
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	1000
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	1000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	1000
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	1000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	1000
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194</b>	1000
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	1000
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	1000



## Toxic and Predominant PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5087	<b>Toxic and Predominant PCB Spiking Standard</b>	10 mL in Methanol
	Labeled	IUPAC (ng/mL)
	<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b> 7.5
	<b>2,4',6-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>32</b> 7.5
	<b>2,2,5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b> 7.5
	<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b> 7.5
	<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b> 7.5
	<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b> 7.5
	<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b> 7.5
	<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b> 7.5
	<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b> 7.5
	<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b> 7.5
	<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b> 7.5
	<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b> 7.5
	<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b> 7.5
	<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b> 7.5
	<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b> 7.5
	<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b> 7.5
	<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b> 7.5
	<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b> 7.5
	<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194</b> 7.5
	<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b> 7.5
	<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b> 7.5

## Toxic and Predominant PCB Standard Mixtures

Catalog #	Compound	Amount
EC-5085	<b>Toxic and Predominant PCB PAR Solution</b>	1.2 mL in Nonane

Unlabeled	IUPAC	(ng/mL)
2,2',5-TriCB	18	250
2,4,4'-TriCB	28	250
2,2',3,5'-TetraCB	44	250
2,2',4,5'-TetraCB	49	250
2,2',5,5'-TetraCB	52	250
2,3',4,4'-TetraCB	66	250
2,4,4',5-TetraCB	74	250
2,2',3,4,5'-PentaCB	87	250
2,2',4,4',5-PentaCB	99	250
2,2',4,5,5'-PentaCB	101	250
2,3,3',4,4'-PentaCB	105	250
2,3,3',4',6-PentaCB	110	250
2,3',4,4',5-PentaCB	118	250
2,2',3,3',4,4'-HexaCB	128	250
2,2',3,4,4',5'-HexaCB	138	250
2,2',3,4',5,5'-HexaCB	146	250
2,2',3,4',5',6-HexaCB	149	250
2,2',3,5,5',6-HexaCB	151	250
2,2',4,4',5,5'-HexaCB	153	250
2,3,3',4,4',5-HexaCB	156	250
2,3,3',4,4',5'-HexaCB	157	250
2,3,3',4,4',6-HexaCB	158	250
2,3',4,4',5,5'-HexaCB	167	250
2,2',3,3',4,4',5-HeptaCB	170	250
2,2',3,3',4,5,5'-HeptaCB	172	250
2,2',3,3',4',5,6-HeptaCB	177	250
2,2',3,3',5,5',6-HeptaCB	178	250
2,2',3,4,4',5,5'-HeptaCB	180	250
2,2',3,4,4',5',6-HeptaCB	183	250
2,2',3,4',5,5',6-HeptaCB	187	250
2,3,3',4,4',5,5'-HeptaCB	189	250
2,2',3,3',4,4',5,5'-OctaCB	194	250
2,2',3,3',4,4',5,6-OctaCB	195	250
2,2',3,3',4,4',5',6-OctaCB	196	250
2,2',3,3',4,5,5',6'-OctaCB	201	250
2,2',3,4,4',5,5',6-OctaCB	203	250
2,2',3,3',4,4',5,5',6-NonaCB	206	250
DecaCB	209	250

## CDC PCB Standard Mixtures

Catalog #	Compound	Amount									
<b>NEW</b> EC-5366	<b>CDC PCB Calibration Solutions [CS1-CS10]</b> (NOTE: Individual calibration standards are available upon request)	Set of 10 x 0.5 mL in Nonane									
<i>All concentrations are in ng/mL (ppb)</i>											
Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
<b>2,2',5-TriCB</b>	<b>18</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,4,4'-TriCB</b>	<b>28</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,5'-TetraCB</b>	<b>44</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',4,5'-TetraCB</b>	<b>49</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3',4,4'-TetraCB</b>	<b>66</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,4,4',5-TetraCB</b>	<b>74</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,4,5'-PentaCB</b>	<b>87</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',4,4',5-PentaCB</b>	<b>99</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3,3',4',6-PentaCB</b>	<b>110</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	0.2	0.5	1	2.5	10	75	100	500	3000	7500
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',4,4'-HexaCB</b>	<b>128</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	0.1	0.25	0.5	1.25	5	37.5	50	250	1500	3750
<b>2,2',3,4',5,5'-HexaCB</b>	<b>146</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,4',5',6-HexaCB</b>	<b>149</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,5,5',6-HexaCB</b>	<b>151</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	0.2	0.5	1	2.5	10	75	100	500	3000	7500
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,3,3',4,4',6-HexaCB</b>	<b>158</b>	0.1	0.25	0.5	1.25	5	37.5	50	250	1500	3750
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	0.2	0.5	1	2.5	10	75	100	500	3000	7500
<b>2,2',3,3',4,5,5'-HeptaCB</b>	<b>172</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',4',5,6-HeptaCB</b>	<b>177</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',5,5',6-HeptaCB</b>	<b>178</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	0.2	0.5	1	2.5	10	75	100	500	3000	7500
<b>2,2',3,4,4',5',6-HeptaCB</b>	<b>183</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,4',5,5',6-HeptaCB</b>	<b>187</b>	0.2	0.5	1	2.5	10	75	100	500	3000	7500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',4,4',5,5'-OctaCB</b>	<b>194</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',4,4',5,6-OctaCB</b>	<b>195</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,3',4,4',5',6-OctaCB</b>	<b>196</b>	0.1	0.25	0.5	1.25	5	37.5	50	250		
<b>2,2',3,3',4,5,5',6'-OctaCB</b>	<b>201</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,2',3,4,4',5,5',6-OctaCB</b>	<b>203</b>	0.1	0.25	0.5	1.25	5	37.5	50	250		
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>DecaCB</b>	<b>209</b>	0.2	0.5	1	2.5	10	75	100	500		

(continued on next page)

## CDC PCB Standard Mixtures

(continued from previous page)

All concentrations are in ng/mL (ppb)

Labeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25	25	25	25	25	25	25	25	25	25
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	100	100	100	100	100	100	100	100	100	100
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b>	75	75	75	75	75	75	75	75	75	75
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	75	75	75	75	75	75	75	75	75	75
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	75	75	75	75	75	75	75	75	75	75
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	75	75	75	75	75	75	75	75	75	75
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	75	75	75	75	75	75	75	75	75	75

Catalog #	Compound	Amount
<b>NEW EC-5367</b>	<b>CDC PCB Spiking Standard</b>	10 mL in Methanol

Labeled	IUPAC	(ng/mL)
<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	7.5
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b>	7.5
<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b>	7.5
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	7.5
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	7.5
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	7.5
<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	7.5
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	7.5
<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b>	7.5
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	7.5
<b>2,2',3,3',4,4'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>128</b>	7.5
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	7.5
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	7.5
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	7.5
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	7.5
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	7.5
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	7.5
<b>2,2',3,3',4,4',5,5'-OctaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>194</b>	7.5
<b>2,2',3,3',4,4',5,5',6-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	7.5
<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	7.5

## Isotope Labeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4937	<b>WHO Coplanar and Mono-Ortho PCBs</b>	3 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	1000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	1000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	1000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	1000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	1000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	1000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	1000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	1000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	1000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	1000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	1000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	1000

EC-4995	<b>WHO Coplanar and Mono-Ortho PCBs with PCB 170/180</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	1000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	1000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	1000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	1000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	1000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	1000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	1000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	1000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	1000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	1000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	1000
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	1000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	1000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	1000

EC-5045	<b>WHO PCB + PCB-170 + PCB-180 Cleanup Standard</b>	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	2000
<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b>	2000
<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b>	2000
<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b>	2000
<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	2000
<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b>	2000
<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	2000
<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b>	2000
<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b>	2000
<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b>	2000
<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b>	2000
<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b>	2000
<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b>	2000
<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b>	2000

## Isotope Labeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4070	<b>Coplanar PCB Mixture</b>	3 mL in Nonane
	Labeled	
	<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b> 5000
	<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b> 5000
	<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b> 5000
EC-4187	<b>Coplanar PCB Mixture</b>	3 mL in Nonane
	Labeled	
	<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b> 1000
	<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b> 1000
	<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b> 1000
	<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b> 1000
EC-4188	<b>Mono-Ortho PCB Mixture – *High Purity</b>	3 mL in Nonane
	Labeled	
	<b>2,3,3',4,4'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>105</b> 1000
	<b>2,3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>114</b> 1000
	<b>2,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b> 1000
	<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b> 1000
	<b>2,3,3',4,4',5-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>156</b> 1000
	<b>2,3,3',4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>157</b> 1000
	<b>2,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>167</b> 1000
	<b>2,3,3',4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>189</b> 1000
EC-4060	<b>PCB Mixture</b>	1.2 mL in Nonane
	Labeled	
	<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b> 10,000
	<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b> 10,000
	<b>2,2',3,4,5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>141</b> 10,000
	<b>2,2',3,3',5,5',6-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>178</b> 10,000
EC-4938	<b>PCB Mixture-A</b>	3 mL in Nonane
	Labeled	
	<b>3,3',4,4'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b> 1000
	<b>3,4,4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>81</b> 1000
	<b>2',3,4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>123</b> 1000
	<b>3,3',4,4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b> 1000
	<b>3,3',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>169</b> 1000
	<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b> 1000
EC-4058	<b>PCB Mixture</b>	3 mL in Nonane
	Labeled	
	<b>2,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b> 5000
	<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>52</b> 5000
	<b>2,2',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>101</b> 5000
	<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b> 5000
	<b>2,2',4,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b> 5000
	<b>2,2',3,4,4',5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>180</b> 5000
	<b>DecaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b> 5000

## Isotope Labeled PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5047	<b>WHO PCB and PCB-170/180 Sampling Standard</b>	1.2 mL in Nonane
	Labeled	IUPAC (ng/mL)
	<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b> 2000
<b>NEW</b> EC-5180	<b>PCB Sampling Spike</b>	1.2 mL in Nonane
	Labeled	
	<b>3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>79</b> 100
<b>NEW</b> EC-5157-5	<b><sup>13</sup>C-Labeled PCB Standard (PCB-70 and PCB-170)</b>	5 mL in Nonane
	Labeled	
	<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b> 2
	<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b> 2
<b>NEW</b> EC-5181	<b>PCB Syringe Spike</b>	1.2 mL in Nonane
<b>NEW</b> EC-5181-10X-1.2	<b>PCB Syringe Spike</b>	1.2 mL in Nonane
	Labeled	EC-5181 EC-5181-10X-1.2
	<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b> 100 1000
	<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b> 100 1000
	<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b> 100 1000
<b>NEW</b> EC-5163	<b>PCB Mixture (PCB-70/111/138/170)</b>	1.2 mL in Nonane
	Labeled	
	<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b> 1000
	<b>2,3,3',5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>111</b> 1000
	<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b> 1000
	<b>2,2',3,3',4,4',5-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>170</b> 1000
<b>NEW</b> EC-5350	<b>POPs Pesticides HRMs (PCB) Syringe Spike</b>	1.2 mL in Nonane
<b>NEW</b> EC-5350-L	<b>POPs Pesticides HRMs (PCB) Syringe Spike</b>	0.5 mL in Nonane
	Labeled	EC-5350 EC-5350-L
	<b>4,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b> 10 1000
	<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b> 10 1000

## Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4133	<b>DSJ PCB Mixture</b>	1 mL in Isooctane

Unlabeled	IUPAC	(ng/mL)
2,2',4-TriCB	17	500
2,2',5-TriCB	18	2000
2,4,4'-TriCB	28	2000
2,4',5-TriCB	31	1500
2',3,4-TriCB	33	2000
2,2',3,5'-TetraCB	44	2000
2,2',4,5'-TetraCB	49	2000
2,2',5,5'-TetraCB	52	2000
2,3',4',5-TetraCB	70	2000
2,4,4',5-TetraCB	74	2000
2,2',3,3',4-PentaCB	82	500
2,2',3,4,5'-PentaCB	87	2000
2,2',3,5',6-PentaCB	95	1000
2,2',4,4',5-PentaCB	99	2000
2,2',4,5,5'-PentaCB	101	2000
2,3,3',4,4'-PentaCB	105	500
2,3,3',4',6-PentaCB	110	2000
2,3',4,4',5-PentaCB	118	2000
2,2',3,3',4,4'-HexaCB	128	2000
2,2',3,3',4,6'-HexaCB	132	1000
2,2',3,4,4',5'-HexaCB	138	2000
2,2',3,4',5',6-HexaCB	149	2000
2,2',3,5,5',6-HexaCB	151	2000
2,2',4,4',5,5'-HexaCB	153	2000
2,3,3',4,4',5-HexaCB	156	2000
2,3,3',4,4',6-HexaCB	158	500
3,3',4,4',5,5'-HexaCB	169	2000
2,2',3,3',4,4',5-HeptaCB	170	2000
2,2',3,3',4,4',6-HeptaCB	171	2000
2,2',3,3',4',5,6-HeptaCB	177	2000
2,2',3,4,4',5,5'-HeptaCB	180	2000
2,2',3,4,4',5',6-HeptaCB	183	2000
2,2',3,4',5,5',6-HeptaCB	187	2000
2,3,3',4,4',5',6-HeptaCB	191	2000
2,2',3,3',4,4',5,5'-OctaCB	194	2000
2,2',3,3',4,4',5,6-OctaCB	195	2000
2,2',3,3',4,5,5',6'-OctaCB	199	1500
2,3,3',4,4',5,5',6-OctaCB	205	2000
2,2',3,3',4,4',5,5',6-NonaCB	206	2000
2,2',3,3',4,5,5',6,6'-NonaCB	208	2000
DecaCB	209	2000



## Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5433	<b>Comprehensive Native PCB Mixture</b>	1.2 mL in Isooctane

Unlabeled	IUPAC	(ng/mL)	Unlabeled	IUPAC	(ng/mL)
2-MonoCB	1	2000	2,2',4,6,6'-PentaCB	104	1000
4-MonoCB	3	2000	2,3,3',4,4'-PentaCB	105	1000
2,2'-DiCB	4	2000	2,3,3',4',6-PentaCB	110	1000
2,4'-DiCB	8	2000	2,3,3',5,5'-PentaCB	111	1000
2,5-DiCB	9	2000	2,3,4,4',5-PentaCB	114	1000
2,6-DiCB	10	2000	2,3',4,4',5-PentaCB	118	1000
3,3'-DiCB	11	2000	2',3,4,4',5-PentaCB	123	1000
3,4-DiCB	12	2000	3,3',4,4',5-PentaCB	126	1000
4,4'-DiCB	15	2000	2,2',3,4,4',5'-HexaCB	138	1000
2,2',5-TriCB	18	1000	2,2',3,4',5',6-HexaCB	149	1000
2,2',6-TriCB	19	1000	2,2',4,4',5,5'-HexaCB	153	1000
2,4,4'-TriCB	28	1000	2,2',4,4',6,6'-HexaCB	155	1000
2,4',5-TriCB	31	1000	2,3,3',4,4',5-HexaCB	156	1000
2',3,4-TriCB	33	1000	2,3,3',4,4',5'-HexaCB	157	1000
3,3',4-TriCB	35	1000	2,3,3',4',5,5'-HexaCB	162	1000
3,4,4'-TriCB	37	1000	2,3',4,4',5,5'-HexaCB	167	1000
3,4,5-TriCB	38	1000	3,3',4,4',5,5'-HexaCB	169	1000
2,2',3,5'-TetraCB	44	1000	2,2',3,3',4,4',5-HeptaCB	170	1000
2,2',4,5'-TetraCB	49	1000	2,2',3,3',4,5,6'-HeptaCB	174	1000
2,2',5,5'-TetraCB	52	1000	2,2',3,3',5,5',6-HeptaCB	178	1000
2,2',6,6'-TetraCB	54	1000	2,2',3,4,4',5,5'-HeptaCB	180	1000
2,3,3',5-TetraCB	57	1000	2,2',3,4',5,5',6-HeptaCB	187	1000
2,3',4,4'-TetraCB	66	1000	2,2',3,4',5,6,6'-HeptaCB	188	1000
2,3',4',5-TetraCB	70	1000	2,3,3',4,4',5,5'-HeptaCB	189	1000
2,4,4',5-TetraCB	74	1000	2,2',3,3',4,4',5,5'-OctaCB	194	1000
3,3',4,4'-TetraCB	77	1000	2,2',3,3',4,4',5,6-OctaCB	195	1000
3,3',4,5-TetraCB	78	1000	2,2',3,3',4,5,6,6'-OctaCB	199	1000
3,3',4,5'-TetraCB	79	1000	2,2',3,3',5,5',6,6'-OctaCB	202	1000
3,4,4',5-TetraCB	81	1000	2,2',3,4,4',5,5',6-OctaCB	203	1000
2,2',3,4,5'-PentaCB	87	1000	2,3,3',4,4',5,5',6-OctaCB	205	1000
2,2',3,5',6-PentaCB	95	1000	2,2',3,3',4,4',5,5',6-NonaCB	206	1000
2,2',4,4',5-PentaCB	99	1000	2,2',3,3',4,5,5',6,6'-NonaCB	208	1000
2,2',4,5,5'-PentaCB	101	1000	DecaCB	209	1000

## Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EC-5434	<b>Fully Resolved Native Mono-Deca PCB Mixture</b>	1.2 mL in Isooctane

Unlabeled	IUPAC	(ng/mL)
<b>2-MonoCB</b>	<b>1</b>	2000
<b>4-MonoCB</b>	<b>3</b>	2000
<b>2,4'-DiCB</b>	<b>8</b>	2000
<b>2,5-DiCB</b>	<b>9</b>	2000
<b>2,6-DiCB</b>	<b>10</b>	2000
<b>3,4-DiCB</b>	<b>12</b>	2000
<b>4,4'-DiCB</b>	<b>15</b>	2000
<b>2,2',5-TriCB</b>	<b>18</b>	1000
<b>2,2',6-TriCB</b>	<b>19</b>	1000
<b>2',3,4-TriCB</b>	<b>33</b>	1000
<b>3,3',4-TriCB</b>	<b>35</b>	1000
<b>3,4,4'-TriCB</b>	<b>37</b>	1000
<b>3,4,5-TriCB</b>	<b>38</b>	1000
<b>2,2',3,5'-TetraCB</b>	<b>44</b>	1000
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	1000
<b>2,2',6,6'-TetraCB</b>	<b>54</b>	1000
<b>2,3,3',5-TetraCB</b>	<b>57</b>	1000
<b>2,4,4',5-TetraCB</b>	<b>74</b>	1000
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	1000
<b>3,3',4,5-TetraCB</b>	<b>78</b>	1000
<b>3,3',4,5'-TetraCB</b>	<b>79</b>	1000
<b>3,4,4',5-TetraCB</b>	<b>81</b>	1000
<b>2,2',4,4',5-PentaCB</b>	<b>99</b>	1000
<b>2,2',4,6,6'-PentaCB</b>	<b>104</b>	1000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	1000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	1000
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	1000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	1000
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	1000
<b>2,2',4,4',6,6'-HexaCB</b>	<b>155</b>	1000
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	1000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	1000
<b>2,3,3',4',5,5'-HexaCB</b>	<b>162</b>	1000
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	1000
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	1000
<b>2,2',3,4',5,6,6'-HeptaCB</b>	<b>188</b>	1000
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	1000
<b>2,2',3,3',4,4',5,5'-OctaCB</b>	<b>194</b>	1000
<b>2,2',3,3',4,4',5,6-OctaCB</b>	<b>195</b>	1000
<b>2,2',3,3',5,5',6,6'-OctaCB</b>	<b>202</b>	1000
<b>2,3,3',4,4',5,5',6-OctaCB</b>	<b>205</b>	1000
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	1000
<b>2,2',3,3',4,4',5,5',6,6'-NonaCB</b>	<b>208</b>	1000
<b>DecaCB</b>	<b>209</b>	1000

## Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-5085	<b>Toxic and Predominant PCB PAR Solution</b>	1.2 mL in Nonane
	Unlabeled	IUPAC (ng/mL)
	<b>2,2',5-TriCB</b>	<b>18</b> 250
	<b>2,4,4'-TriCB</b>	<b>28</b> 250
	<b>2,2',3,5'-TetraCB</b>	<b>44</b> 250
	<b>2,2',4,5'-TetraCB</b>	<b>49</b> 250
	<b>2,2',5,5'-TetraCB</b>	<b>52</b> 250
	<b>2,3',4,4'-TetraCB</b>	<b>66</b> 250
	<b>2,4,4',5-TetraCB</b>	<b>74</b> 250
	<b>2,2',3,4,5'-PentaCB</b>	<b>87</b> 250
	<b>2,2',4,4',5-PentaCB</b>	<b>99</b> 250
	<b>2,2',4,5,5'-PentaCB</b>	<b>101</b> 250
	<b>2,3,3',4,4'-PentaCB</b>	<b>105</b> 250
	<b>2,3,3',4',6-PentaCB</b>	<b>110</b> 250
	<b>2,3',4,4',5-PentaCB</b>	<b>118</b> 250
	<b>2,2',3,3',4,4'-HexaCB</b>	<b>128</b> 250
	<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b> 250
	<b>2,2',3,4',5,5'-HexaCB</b>	<b>146</b> 250
	<b>2,2',3,4',5,6-HexaCB</b>	<b>149</b> 250
	<b>2,2',3,5,5',6-HexaCB</b>	<b>151</b> 250
	<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b> 250
	<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b> 250
	<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b> 250
	<b>2,3,3',4,4',6-HexaCB</b>	<b>158</b> 250
	<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b> 250
	<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b> 250
	<b>2,2',3,3',4,5,5'-HeptaCB</b>	<b>172</b> 250
	<b>2,2',3,3',4',5,6-HeptaCB</b>	<b>177</b> 250
	<b>2,2',3,3',5,5',6-HeptaCB</b>	<b>178</b> 250
	<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b> 250
	<b>2,2',3,4,4',5',6-HeptaCB</b>	<b>183</b> 250
	<b>2,2',3,4',5,5',6-HeptaCB</b>	<b>187</b> 250
	<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b> 250
	<b>2,2',3,3',4,4',5,5'-OctaCB</b>	<b>194</b> 250
	<b>2,2',3,3',4,4',5,6-OctaCB</b>	<b>195</b> 250
	<b>2,2',3,3',4,4',5',6-OctaCB</b>	<b>196</b> 250
	<b>2,2',3,3',4,5,5',6'-OctaCB</b>	<b>201</b> 250
	<b>2,2',3,4,4',5,5',6-OctaCB</b>	<b>203</b> 250
	<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b> 250
	<b>DecaCB</b>	<b>209</b> 250

## Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4935	<b>WHO Coplanar and Mono-Ortho PCBs</b>	1.2 mL in Isooctane
EC-4935-A	<b>WHO Coplanar and Mono-Ortho PCBs</b>	3 mL in Isooctane

Unlabeled	IUPAC	EC-4935 (ng/mL)	EC-4935-A (ng/mL)
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	2000	1000
<b>3,4,4',5-TetraCB</b>	<b>81</b>	2000	1000
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	2000	1000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	2000	1000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	2000	1000
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	2000	1000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	2000	1000
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	2000	1000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	2000	1000
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	2000	1000
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	2000	1000
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	2000	1000

EC-5000	<b>WHO Coplanar and Mono-Ortho PCBs and 170/180</b>	1.2 mL in Isooctane
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Unlabeled	IUPAC	EC-5000
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	2000
<b>3,4,4',5-TetraCB</b>	<b>81</b>	2000
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	2000
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	2000
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	2000
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	2000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	2000
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	2000
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	2000
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	2000
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	2000
<b>2,2',3,3',4,4',5-HeptaCB</b>	<b>170</b>	2000
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	2000
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	2000

EC-4986	<b>Non-Ortho Native PCB Solution</b>	1.2 mL in Isooctane
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Unlabeled	IUPAC	Amount
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	10,000
<b>3,4,4',5-TetraCB</b>	<b>81</b>	10,000
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	10,000
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	10,000

## Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4987	<b>Mono-Ortho Native PCB Solution</b>	1.2 mL in Isooctane
EC-4987/100	<b>Mono-Ortho Native PCB Solution</b>	100 µL in Isooctane

Unlabeled	IUPAC	EC-4987 (ng/mL)	EC-4987/100 (ng/mL)
<b>2,3,3',4,4'-PentaCB</b>	<b>105</b>	10,000	100
<b>2,3,4,4',5-PentaCB</b>	<b>114</b>	10,000	100
<b>2,3',4,4',5-PentaCB</b>	<b>118</b>	10,000	100
<b>2',3,4,4',5-PentaCB</b>	<b>123</b>	10,000	100
<b>2,3,3',4,4',5-HexaCB</b>	<b>156</b>	10,000	100
<b>2,3,3',4,4',5'-HexaCB</b>	<b>157</b>	10,000	100
<b>2,3',4,4',5,5'-HexaCB</b>	<b>167</b>	10,000	100
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	10,000	100

<b>NEW</b> EC-5179	<b>Unlabeled PCB Mixture</b>	3 mL in Isooctane
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Unlabeled	IUPAC	Concentration
<b>2,4,4'-TriCB</b>	<b>28</b>	5000
<b>2,2',5,5'-TetraCB</b>	<b>52</b>	5000
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	5000
<b>2,2',3,4,4',5'-HexaCB</b>	<b>138</b>	5000
<b>2,2',4,4',5,5'-HexaCB</b>	<b>153</b>	5000
<b>2,2',3,4,4',5,5'-HeptaCB</b>	<b>180</b>	5000
<b>DecaCB</b>	<b>209</b>	5000

EC-7438	<b>Unlabeled PCB Mixture</b>	1.2 mL in Isooctane
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Unlabeled	IUPAC	Concentration
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	10,000
<b>2,2',4,5,5'-PentaCB</b>	<b>101</b>	10,000
<b>2,2',3,4,5,5'-HexaCB</b>	<b>141</b>	10,000
<b>2,2',3,3',5,5',6-HeptaCB</b>	<b>178</b>	10,000

## PCB Window Defining Mixture

Catalog #	Compound	Amount
EC-1430	<b>PCB Window Defining Mixture</b> (For use with DB-5 type GC/MS columns)	5 mL in Isooctane

Unlabeled	IUPAC	(ng/mL)
<b>Biphenyl</b>	<b>0</b>	2500
<b>2-MonoCB</b>	<b>1</b>	2500
<b>4-MonoCB</b>	<b>3</b>	2500
<b>2,6-DiCB</b>	<b>10</b>	2500
<b>4,4'-DiCB</b>	<b>15</b>	2500
Note: #30 is second tri eluter		
<b>2,4,6-TriCB</b>	<b>30</b>	2500
<b>3,4,4'-TriCB</b>	<b>37</b>	2500
<b>2,2',6,6'-TetraCB</b>	<b>54</b>	2500
<b>3,3',4,4'-TetraCB</b>	<b>77</b>	2500
<b>2,2',4,6,6'-PentaCB</b>	<b>104</b>	2500
<b>3,3',4,4',5-PentaCB</b>	<b>126</b>	2500
<b>2,2',4,4',6,6'-HexaCB</b>	<b>155</b>	2500
<b>3,3',4,4',5,5'-HexaCB</b>	<b>169</b>	2500
<b>2,2',3,4',5,6,6'-HeptaCB</b>	<b>188</b>	2500
<b>2,3,3',4,4',5,5'-HeptaCB</b>	<b>189</b>	2500
<b>2,2',3,3',5,5',6,6'-OctaCB</b>	<b>202</b>	2500
Note: #194 is second-to-last octa eluter		
<b>2,2',3,3',4,4',5,5'-OctaCB</b>	<b>194</b>	2500
<b>2,2',3,3',4,4',5,5',6-NonaCB</b>	<b>206</b>	2500
<b>2,2',3,3',4,5,5',6,6'-NonaCB</b>	<b>208</b>	2500
<b>DecaCB</b>	<b>209</b>	2500

## Isotope Labeled Mixed Bromo/Chloro Biphenyl Standards

Catalog #	Compound	Concentration	Amount
<i>NEW</i> ECB-5269	<b>3,4-Dichloro-3',4',5'-TriBB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5270	<b>3,4-Dibromo-3',4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5271	<b>3,4-Dibromo-3',4',5'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5291	<b>4'-Bromo-3,3',4,5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5292	<b>4'-Bromo-2,3',4,5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5293	<b>4'-Bromo-2,3,3',4-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5294	<b>4'-Bromo-2,3,3',4,5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL
<i>NEW</i> ECB-5339	<b>4'-Bromo-3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	40 µg/mL in Nonane	3 mL

## Unlabeled Mixed Bromo/Chloro Biphenyl Standards

<i>NEW</i> PCBB-5272-CS	<b>3,4-Dichloro-3',4',5'-TriBB Certified Standard (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5273	<b>3,4-Dibromo-3',4'-DiCB (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5274	<b>3,4-Dibromo-3',4',5'-TriCB (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5295	<b>4'-Bromo-3,3',4,5-TetraCB (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5296	<b>4'-Bromo-2,3',4,5-TetraCB (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5297	<b>4'-Bromo-2,3,3',4-TetraCB (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5298	<b>4'-Bromo-2,3,3',4,5-PentaCB (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL
<i>NEW</i> PCBB-5340-CS	<b>4'-Bromo-3,3',4,5,5'-PentaCB Certified Standard (unlabeled)</b>	100 µg/mL in Isooctane	1.2 mL

## Mixed Bromo/Chloro Biphenyl Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ECB-5390	<b>PXB Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> ECB-5390-CS1	<b>PXB Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> ECB-5390-CS2	<b>PXB Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> ECB-5390-CS3	<b>PXB Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> ECB-5390-CS4	<b>PXB Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> ECB-5390-CS5	<b>PXB Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>4'-Bromo-3,3',4,5-TetraCB</b>	2	10	50	200	200
<b>4'-Bromo-2,3',4,5-TetraCB</b>	2	10	50	200	200
<b>4'-Bromo-2,3,3',4-TetraCB</b>	2	10	50	200	200
<b>4'-Bromo-2,3,3',4,5-PentaCB</b>	2	10	50	200	200
<b>4'-Bromo-3,3',4,5,5'-PentaCB</b>	2	10	50	200	1000
<b>3,4-Dichloro-3',4',5'-TriBB</b>	4	20	100	400	2000
Labeled					
<b>4'-Bromo-3,3',4,5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>4'-Bromo-2,3',4,5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>4'-Bromo-2,3,3',4-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>4'-Bromo-2,3,3',4,5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>4'-Bromo-3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100
<b>3,4-Dichloro-3',4',5'-TriBB (<sup>13</sup>C<sub>12</sub>,99%)</b>	200	200	200	200	200
<b>2,2',3,4,5,5'-HexaCDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	100	100	100	100

<b>NEW</b> ECB-5389	<b>PXB Cleanup Spike</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
<b>4'-Bromo-3,3',4,5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>4'-Bromo-2,3',4,5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>4'-Bromo-2,3,3',4-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>4'-Bromo-2,3,3',4,5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>4'-Bromo-3,3',4,5,5'-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>3,4-Dichloro-3',4',5'-TriBB (<sup>13</sup>C<sub>12</sub>,99%)</b>	2000

<b>NEW</b> EO-5388	<b>PXB Syringe Standard</b>	1.2 mL in Nonane
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Labeled	(ng/mL)
<b>2,2',3,4,5,5'-HexaCDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000

<b>NEW</b> ECB-5387	<b>PXB Native PAR Solution</b>	0.5 mL in Nonane
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Unlabeled	(ng/mL)
<b>4'-Bromo-3,3',4,5-TetraCB</b>	1000
<b>4'-Bromo-2,3',4,5-TetraCB</b>	1000
<b>4'-Bromo-2,3,3',4-TetraCB</b>	1000
<b>4'-Bromo-2,3,3',4,5-PentaCB</b>	1000
<b>4'-Bromo-3,3',4,5,5'-PentaCB</b>	1000
<b>3,4-Dichloro-3',4',5'-TriBB</b>	2000



## PCB Metabolite Standards

### OH-PCB

Catalog #	Compound	Concentration	Amount
NEW OHCB-5114-1.2	<b>4'-OH-3,3',4,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Nonane	1.2 mL
NEW OHCB-5115-1.2	<b>4-OH-2,3,3',4',5-PentaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Nonane	1.2 mL
NEW OHCB-5117-1.2	<b>4-OH-2,2',3,4',5,5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Nonane	1.2 mL
NEW OHCB-5118-1.2	<b>3'-OH-2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Nonane	1.2 mL
NEW OHCB-5124-1.2	<b>4'-OH-2,2',3,3',4,5,5'-HeptaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Nonane	1.2 mL

### MEO-PCB

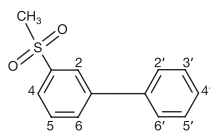
NEW MEOCB-5109-1.2	<b>4-Methoxy-2,3,3',4',5-PentaCB (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
NEW MEOCB-5111-1.2	<b>4-Methoxy-2,2',3,4',5,5'-HexaCB (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
NEW MEOCB-5135-1.2	<b>4-Methoxy-2,2',3,4',5,5',6-HeptaCB (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL

## Unlabeled Methyl Sulfone PCB Standards

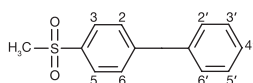
Methyl Sulfone derivatives of polychlorinated biphenyls (MeSO<sub>2</sub>-PCBs) are known to be primary metabolic products of PCBs. These are persistent, lipophilic compounds which accumulate in the lung, liver and kidney tissues of mammals exposed to PCBs.

MSCB-4027	<b>3-MeSO<sub>2</sub>-4-Me-2',3',4',5,5'-Penta-CB (Internal Standard)</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4007	<b>3-MeSO<sub>2</sub>-2,2',4',5-TetraCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4008	<b>4-MeSO<sub>2</sub>-2,2',4',5-TetraCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4043	<b>4-MeSO<sub>2</sub>-2,2',4',5,6-PentaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4009	<b>3-MeSO<sub>2</sub>-2,2',4',5,5'-PentaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4010	<b>4-MeSO<sub>2</sub>-2,2',4',5,5'-PentaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4012	<b>4-MeSO<sub>2</sub>-2,3,3',4',6-PentaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4044	<b>3-MeSO<sub>2</sub>-2,2',3',4',5,6-HexaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4045	<b>4-MeSO<sub>2</sub>-2,2',3,3',4',6-HexaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4013	<b>3-MeSO<sub>2</sub>-2,2',4',5,5',6-HexaCB</b>	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4015	<b>3-MeSO<sub>2</sub>-DDE</b>	40 ± 4 µg/mL in Nonane	1.2 mL

**3-MeSO<sub>2</sub>-PCB**



**4-MeSO<sub>2</sub>-PCB**



## Brominated Flame Retardant Standards and Standard Mixtures

Generally used as flame retardants, Brominated Diphenyl Ethers (BDEs) have become chemicals of significant environmental concern. BDEs are persistent and highly lipophilic substances, similar to well-known environmental contaminants such as PCBs. Flame retardants highlight the need to develop risk assessments about chemicals meant to protect us and the effect of their exposure to humans and the environment. CIL first synthesized  $^{13}\text{C}$ -BDEs in the 1980s as part of the earliest PBDD/PBDF analytical program.



## Isotope Labeled Brominated Diphenyl Ether (BDE) Standards

Generally used as flame retardants, Brominated Diphenyl Ethers (BDEs) have become chemicals of significant environmental concern. BDEs may be generally considered as persistent and highly lipophilic substances, similar to well known environmental contaminants such as polychlorinated biphenyls (PCBs).

In 1996, Cambridge Isotope Laboratories (CIL) first introduced Chlorinated and Brominated Diphenyl Ether analytical standards. Since then, additional studies in Europe, Canada, Japan, and the United States have significantly increased interest in these products and enabled CIL to extend its flame-retardant offerings.

## U.S. EPA Method 1614 Standard Mixtures

The United States EPA has developed a standardized test method for analysis of Brominated Diphenyl Ethers in multiple matrices by High Resolution GC/MS. CIL worked closely with the EPA and their contracting laboratories to develop standard mixtures specifically for use in Method 1614.

## RoHS BDE Standard Mixtures

The Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (2002/95/EC), commonly referred to as the Restriction of Hazardous Substances Directive (RoHS) was adopted in February 2003 in Europe and took effect in July 2006. This directive restricts the use of several types of hazardous materials in the manufacture of various types of electronic and electrical equipment. CIL worked with laboratories in the European Union to develop standards for analysis of brominated diphenyl ethers under the RoHS guidelines.

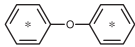
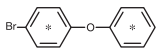
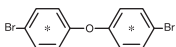
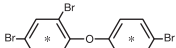
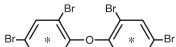
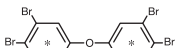
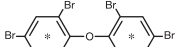
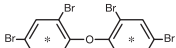
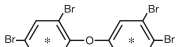
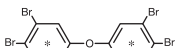
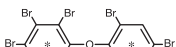
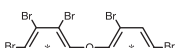
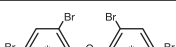
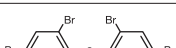
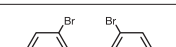
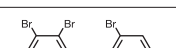

## Brominated Flame Retardant Standards and Standard Mixtures

Following regulatory restrictions and voluntary removal of Brominated Diphenyl Ether (BDE) products from many flame retardant applications, new brominated compounds have been developed as replacements for BDEs. As monitoring of these possible environmental pollutants increased, CIL developed several labeled and unlabeled standards to allow accurate analysis of these new-use Brominated Flame Retardant (BFR) compounds. CIL further developed a series of standard mixtures which include a combination of BDEs and other BFRs in comprehensive mixtures.

## Isotope Labeled and Unlabeled BDE Metabolites

Researchers have suggested that BDE body burdens are not completely represented by measurements of BDEs in tissue or milk. Analytical data indicates that the liver hydrolyzes BDEs in its attempts to expel them. BDE toxicity is still being established, but there is a likelihood that BDE metabolites have similar or greater toxicity than the parent BDEs. CIL has been producing both unlabeled and <sup>13</sup>C<sub>12</sub> Methoxy- and Hydroxy-BDEs. These items represent some of the BDE metabolites available from CIL; please contact CIL or your CIL representative for more information on these compounds.

## Isotope Labeled Individual Brominated Diphenyl Ether (BDE) Standards

Catalog #	Compound	BDE		Concentration	Amount
CLM-1587-1.2	<b>Diphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>0</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4999	<b>4-Monobromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>3</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5001	<b>4,4'-Dibromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>15</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5002	<b>2,4,4'-Tribromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>28</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4982	<b>2,2',4,4'-Tetrabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>47</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-1439	<b>3,3',4,4'-Tetrabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>77</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4983	<b>2,2',4,4',5-Pentabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>99</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4993	<b>2,2',4,4',6-Pentabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>100</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5034	<b>2,3',4,4',5-Pentabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>118</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4930	<b>3,3',4,4',5-Pentabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>126</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5035	<b>2,2',3,4,4',5'-Hexabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>138</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5165	<b>2,2',3,4,4',6-Hexabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>139</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4984	<b>2,2',4,4',5,5'-Hexabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>153</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5161	<b>2,2',4,4',5,6'-Hexabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>154</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> EO-5413	<b>2,2',4,4',6,6'-Hexabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>155</b>		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4985	<b>2,2',3,4,4',5',6-Heptabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>183</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> EO-5376	<b>2,3,3',4,4',5,6-Heptabromodiphenyl ether</b> ( <sup>13</sup> C <sub>12</sub> , 99%)	<b>190</b>		50 ± 5 µg/mL in Nonane	1.2 mL

## Isotope Labeled Individual Brominated Diphenyl Ether (BDE) Standards

Catalog #	Compound	BDE	Concentration	Amount
<b>NEW</b> EO-5337	<b>2,2',3,3',4,4',6,6'-Octabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>197</b>	50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> EO-5377	<b>2,2',3,4,4',5,5',6-Octabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>203</b>	50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> EO-5355	<b>2,2',3,4,4',5,6,6'-Octabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>204</b>	50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> EO-5362	<b>2,3,3',4,4',5,5',6-Octabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>205</b>	50 ± 5 µg/mL in Nonane	1.2 mL
EO-5240	<b>2,2',3,3',4,4',5,5',6-Nonabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	50 ± 5 µg/mL in Nonane	1.2 mL
EO-5241	<b>2,2',3,3',4,4',5,6,6'-Nonabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b>	50 ± 5 µg/mL in Nonane	1.2 mL
EO-5242	<b>2,2',3,3',4,5,5',6,6'-Nonabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	50 ± 5 µg/mL in Nonane	1.2 mL
EO-5003	<b>Decabromodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	50 ± 5 µg/mL in Nonane	1.2 mL

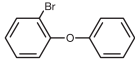
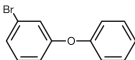
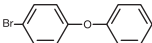
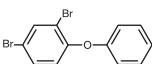
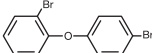
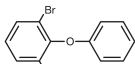
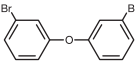
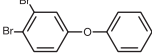
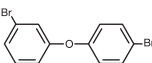
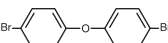
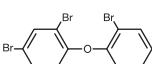
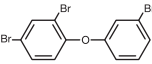
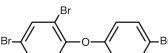
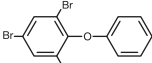
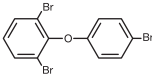
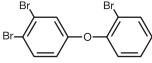
Multiple-unit pricing is available for individual <sup>13</sup>C-BDE standards as follows:

2-3 units = 20% discount

4 or more units = 33% discount



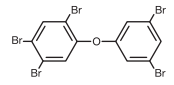
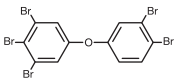
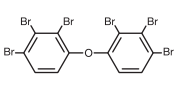
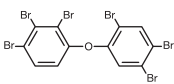
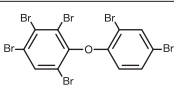
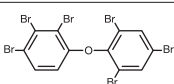
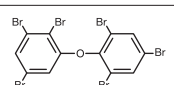
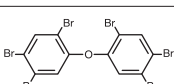
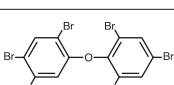
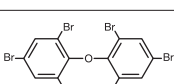
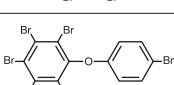
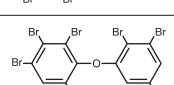
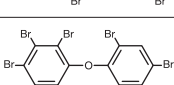
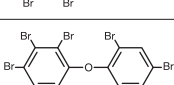
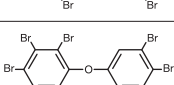
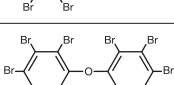
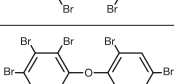
## Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

Catalog #	Compound	BDE		Concentration	Amount
BDE-1-CS	<b>2-Monobromodiphenyl ether</b>	<b>1</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-2-CS	<b>3-Monobromodiphenyl ether</b>	<b>2</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-3-CS	<b>4-Monobromodiphenyl ether</b>	<b>3</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-7-CS	<b>2,4-Dibromodiphenyl ether</b>	<b>7</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-8-CS	<b>2,4'-Dibromodiphenyl ether</b>	<b>8</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-10-CS	<b>2,6-Dibromodiphenyl ether</b>	<b>10</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-11-CS	<b>3,3'-Dibromodiphenyl ether</b>	<b>11</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-12-CS	<b>3,4-Dibromodiphenyl ether</b>	<b>12</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-13-CS	<b>3,4'-Dibromodiphenyl ether</b>	<b>13</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-15-CS	<b>4,4'-Dibromodiphenyl ether</b>	<b>15</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-17-CS	<b>2,2',4-Tribromodiphenyl ether</b>	<b>17</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-25-CS	<b>2,3',4-Tribromodiphenyl ether</b>	<b>25</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-28-CS	<b>2,4,4'-Tribromodiphenyl ether</b>	<b>28</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-30-CS	<b>2,4,6-Tribromodiphenyl ether</b>	<b>30</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-32-CS	<b>2,4',6-Tribromodiphenyl ether</b>	<b>32</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-33-CS	<b>2',3,4-Tribromodiphenyl ether</b>	<b>33</b>		50 ± 5 µg/mL in Nonane	1.2 mL

## Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

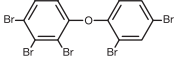
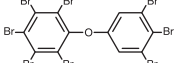
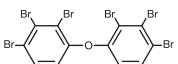
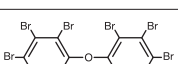
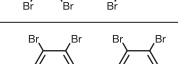
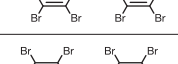
Catalog #	Compound	BDE	Chemical Structure	Concentration	Amount
BDE-35-CS	<b>3,3',4-Tribromodiphenyl ether</b>	<b>35</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-37-CS	<b>3,4,4'-Tribromodiphenyl ether</b>	<b>37</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-47-CS	<b>2,2',4,4'-Tetrabromodiphenyl ether</b>	<b>47</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-49-CS	<b>2,2',4,5'-Tetrabromodiphenyl ether</b>	<b>49</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> BDE-51-CS	<b>2,2',4,6'-Tetrabromodiphenyl ether</b>	<b>51</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-66-CS	<b>2,3',4,4'-Tetrabromodiphenyl ether</b>	<b>66</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-71-CS	<b>2,3',4',6-Tetrabromodiphenyl ether</b>	<b>71</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-75-CS	<b>2,4,4',6-Tetrabromodiphenyl ether</b>	<b>75</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-77-CS	<b>3,3',4,4'-Tetrabromodiphenyl ether</b>	<b>77</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> BDE-79-CS	<b>3,3',4,5'-Tetrabromodiphenyl ether</b>	<b>79</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-85-CS	<b>2,2',3,4,4'-Pentabromodiphenyl ether</b>	<b>85</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-99-CS	<b>2,2',4,4',5-Pentabromodiphenyl ether</b>	<b>99</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-100-CS	<b>2,2',4,4',6-Pentabromodiphenyl ether</b>	<b>100</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-105-CS	<b>2,3,3',4,4'-Pentabromodiphenyl ether</b>	<b>105</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-116-CS	<b>2,3,4,5,6-Pentabromodiphenyl ether</b>	<b>116</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-118-CS	<b>2,3',4,4',5-Pentabromodiphenyl ether</b>	<b>118</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-119-CS	<b>2,3',4,4',6-Pentabromodiphenyl ether</b>	<b>119</b>		50 ± 5 µg/mL in Nonane	1.2 mL

## Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

Catalog #	Compound	BDE		Concentration	Amount
<b>NEW</b> BDE-120-CS	<b>2,3',4,5,5'-Pentabromodiphenyl ether</b>	<b>120</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-126-CS	<b>3,3',4,4',5-Pentabromodiphenyl ether</b>	<b>126</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> BDE-128-CS	<b>2,2',3,3',4,4'-Hexabromodiphenyl ether</b>	<b>128</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-138-CS	<b>2,2',3,4,4',5'-Hexabromodiphenyl ether</b>	<b>138</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-139-CS	<b>2,2',3,4,4',6-Hexabromodiphenyl ether</b>	<b>139</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-140-CS	<b>2,2',3,4,4',6'-Hexabromodiphenyl ether</b>	<b>140</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> BDE-148-CS	<b>2,2',3,4',5,6'-Hexabromodiphenyl ether</b>	<b>148</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-153-CS	<b>2,2',4,4',5,5'-Hexabromodiphenyl ether</b>	<b>153</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-154-CS	<b>2,2',4,4',5,6'-Hexabromodiphenyl ether</b>	<b>154</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-155-CS	<b>2,2',4,4',6,6'-Hexabromodiphenyl ether</b>	<b>155</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-166-CS	<b>2,3,4,4',5,6-Hexabromodiphenyl ether</b>	<b>166</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> BDE-175-CS	<b>2,2',3,3',4,5',6-Heptabromodiphenyl ether</b>	<b>175</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-181-CS	<b>2,2',3,4,4',5,6-Heptabromodiphenyl ether</b>	<b>181</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-183-CS	<b>2,2',3,4,4',5',6-Heptabromodiphenyl ether</b>	<b>183</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-190-CS	<b>2,3,3',4,4',5,6-Heptabromodiphenyl ether</b>	<b>190</b>		50 ± 5 µg/mL in Nonane	1.2 mL
<b>NEW</b> BDE-197-CS	<b>2,2',3,3',4,4',6,6'-Octabromodiphenyl ether</b>	<b>197</b>		50 ± 5 µg/mL in Nonane	1.2 mL
BDE-203-CS	<b>2,2',3,4,4',5,5',6-Octabromodiphenyl ether</b>	<b>203</b>		50 ± 5 µg/mL in Nonane	1.2 mL



## Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

Catalog #	Compound	BDE	Concentration	Amount
<b>NEW</b> BDE-204-CS	<b>2,2',3,4,4',5,6,6'-Octabromodiphenyl ether</b>	<b>204</b> 	50 ± 5 µg/mL in Nonane	1.2 mL
BDE-205-CS	<b>2,3,3',4,4',5,5',6-Octabromodiphenyl ether</b>	<b>205</b> 	50 ± 5 µg/mL in Nonane	1.2 mL
BDE-206-CS	<b>2,2',3,3',4,4',5,5',6-Nonabromodiphenyl ether</b>	<b>206</b> 	50 ± 5 µg/mL in Nonane	1.2 mL
BDE-207-CS	<b>2,2',3,3',4,4',5,6,6'-Nonabromodiphenyl ether</b>	<b>207</b> 	50 ± 5 µg/mL in Nonane	1.2 mL
BDE-208-CS	<b>2,2',3,3',4,5,5',6,6'-Nonabromodiphenyl ether</b>	<b>208</b> 	50 ± 5 µg/mL in Nonane	1.2 mL
BDE-209-CS	<b>Decabromodiphenyl ether</b>	<b>209</b> 	50 ± 5 µg/mL in Nonane	1.2 mL

Multiple-unit pricing is available for individual unlabeled BDE standards as follows:

5-7 units = 20% discount  
 8-11 units = 33% discount  
 12 or more units = 50% discount

## Isotope Labeled Individual Polybrominated Biphenyl (PBB) Standards

EB-5055	<b>3,3',4,4'-TetraBB (<sup>13</sup>C<sub>12</sub>,99%) (PBB-77)</b>	40 ± 2 µg/mL in Nonane	3 mL
EB-5056	<b>3,3',4,4',5-PentaBB (<sup>13</sup>C<sub>12</sub>,99%) (PBB-126)</b>	40 ± 2 µg/mL in Nonane	3 mL
<b>NEW</b> EB-5162	<b>2,2',4,4',5,5'-HexaBB (<sup>13</sup>C<sub>12</sub>,99%) (PBB-153)</b>	40 ± 2 µg/mL in Nonane	3 mL
EB-5106	<b>2,3,3',4,4',5'-HexaBB (<sup>13</sup>C<sub>12</sub>,99%) (PBB-157)</b>	40 ± 2 µg/mL in Nonane	3 mL
<b>NEW</b> EB-5439	<b>DecaBB (<sup>13</sup>C<sub>12</sub>,99%) (PBB-209)</b>	40 ± 2 µg/mL in Nonane	3 mL

## Unlabeled Individual Polybrominated Biphenyl (PBB) Standards

PBB-77-CS	<b>3,3',4,4'-TetraBB Certified Standard (PBB-77)</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PBB-126	<b>3,3',4,4',5-PentaBB (PBB-126)</b>	100 ± 10 µg/mL in Isooctane	1.2 mL
PBB-153-CS	<b>2,2',4,4',5,5'-HexaBB Certified Standard (PBB-153)</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
PBB-157-CS	<b>2,3,3',4,4',5'-HexaBB Certified Standard (PBB-157)</b>	100 ± 5 µg/mL in Isooctane	1.2 mL
<b>NEW</b> PBB-209-CS	<b>DecaBB Certified Standard (PBB-209)</b>	100 ± 5 µg/mL in Isooctane	1.2 mL

## BDE Technical Mixtures

Catalog #	Compound	Concentration	Amount
EO-4958-1.2	<b>PentaBDE Technical Mix (Bromkal™ 70-5)</b>	50 µg/mL in Methanol	1.2 mL
EO-5031	<b>PentaBDE Technical Mix (DE-71™)</b>	50 µg/mL in Methanol	1.2 mL
EO-5030	<b>OctaBDE Technical Mix (DE-79™)</b>	50 µg/mL in Methanol	1.2 mL
EO-5060	<b>DecaBDE Technical Mix (Saytex® 102E)</b>	10 µg/mL in Methanol	10 mL

## Tetrabromobisphenol A (TBBPA) and Hexabromocyclododecane (HBCD) Standards

	CLM-4694-1.2	<b>Tetrabromobisphenol A (TBBPA) (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8734-1.2	<b>Tetrabromobisphenol A (TBBPA) (unlabeled)</b>	50 µg/mL in Methanol	1.2 mL
	ULM-6236-1.2	<b>Dimethyl Tetrabromobisphenol A (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
	CLM-7102-1.2	<b>Hexabromocyclododecane (HBCD) (<sup>13</sup>C<sub>12</sub>,99%)</b> (Unequal mixture of α, β, and γ isomers)	50 µg/mL in Toluene	1.2 mL
<b>NEW</b>	CLM-7922-0.5	<b>α-Hexabromocyclododecane (HBCD) (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Toluene	0.5 mL
	ULM-4834-1.2	<b>α-Hexabromocyclododecane (HBCD) (unlabeled)</b>	50 µg/mL in Toluene	1.2 mL
<b>NEW</b>	CLM-7923-1.2	<b>β-Hexabromocyclododecane (HBCD) (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Toluene	1.2 mL
	ULM-4835-1.2	<b>β-Hexabromocyclododecane (HBCD) (unlabeled)</b>	50 µg/mL in Toluene	1.2 mL
<b>NEW</b>	CLM-7924-1.2	<b>γ-Hexabromocyclododecane (HBCD) (<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Toluene	1.2 mL
	ULM-4836-1.2	<b>γ-Hexabromocyclododecane (HBCD) (unlabeled)</b>	50 µg/mL in Toluene	1.2 mL

## Other Flame-Retardant Standards

<b>NEW</b>	CLM-8569-1.2	<b>Dechlorane Plus <i>syn</i> (<sup>13</sup>C<sub>10</sub>,99%)</b>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7886-1.2	<b>Dechlorane Plus <i>syn</i> (unlabeled)</b>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	CLM-8588-1.2	<b>Dechlorane Plus <i>anti</i> (<sup>13</sup>C<sub>10</sub>,99%)</b>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7887-1.2	<b>Dechlorane Plus <i>anti</i> (unlabeled)</b>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7777-1.2	<b>Dechlorane Plus Technical Product (unlabeled)</b> (mix of <i>syn/anti</i> isomers)	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7375-2X1.2	<b>1,2-Bis(pentabromophenyl) ethane (DBDPE) (unlabeled)</b> (CP: 96%)	25 µg/mL in Toluene	2 x 1.2 mL
<b>NEW</b>	ULM-7595-1.2	<b>1,2-Bis(2,4,6-tribromophenoxy) ethane (BTBPE) (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b>	CLM-8006-1.2	<b>Tetrachlorobisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-7606-1.2	<b>Tetrachlorobisphenol A (unlabeled)</b>	50 µg/mL in Methanol	1.2 mL

## BDE Metabolite Standards

### OH-BDE

<b>NEW</b>	OHBDE-5190-1.2	<b>6-Hydroxy-2,2',4,4'-TetraBDE (ring-<sup>13</sup>C<sub>12</sub>,99%) (CP: 92%)</b>	50 µg/mL in Toluene	1.2 mL
<b>NEW</b>	OHBDE-5206-1.2	<b>6-Hydroxy-2,2',4,4'-TetraBDE (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b>	OHBDE-5191-1.2	<b>2-Hydroxy-2',4,4',5',6-PentaBDE (ring-<sup>13</sup>C<sub>12</sub>,99%) (CP: 94%)</b>	50 µg/mL in Toluene	1.2 mL
<b>NEW</b>	OHBDE-5212-1.2	<b>4'-Hydroxy-2,2',4,5'-TetraBDE (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b>	OHBDE-5214-1.2	<b>6'-Hydroxy-2,2',4,5'-TetraBDE (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b>	OHBDE-5228-1.2	<b>6-Hydroxy-2,2',4,4',5-PentaBDE (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL

### MEO-BDE

<b>NEW</b>	MEOBDE-5153-1.2	<b>2'-Methoxy-2,3',4,5'-TetraBDE (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b>	MEOBDE-5205-1.2	<b>6-Methoxy-2,2',4,4'-TetraBDE (unlabeled)</b>	50 µg/mL in Nonane	1.2 mL

Bromkal is a trademark of Chemische Fabrik Kalk GmbH.

DE-71 is a trademark of Chemtura (Great Lakes Chemical Company).

DE-79 is a trademark of Chemtura (Great Lakes Chemical Company).

Saytex is a registered trademark of Albemarle Corporation.

## U.S. EPA Method 1614 Standard Mixtures

Catalog #	Compound	Amount
EO-5279	<b>EPA Method 1614 Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
EO-5279-CS1	<b>EPA Method 1614 Calibration Solution [CS1]</b>	0.2 mL in Nonane
EO-5279-CS2	<b>EPA Method 1614 Calibration Solution [CS2]</b>	0.2 mL in Nonane
EO-5279-CS3	<b>EPA Method 1614 Calibration Solution [CS3]</b>	0.2 mL in Nonane
EO-5279-CS4	<b>EPA Method 1614 Calibration Solution [CS4]</b>	0.2 mL in Nonane
EO-5279-CS5	<b>EPA Method 1614 Calibration Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	Congener	CS1	CS2	CS3	CS4	CS5
<b>2,4,4'-TriBDE</b>	<b>28</b>	1	5	50	500	2500
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	1	5	50	500	2500
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	1	5	50	500	2500
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	1	5	50	500	2500
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	1	5	50	500	2500
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	1	5	50	500	2500
<b>2,2',3,4,4',5',6-HeptaBDE</b>	<b>183</b>	1	5	50	500	2500
<b>DecaBDE</b>	<b>209</b>	10	50	500	5000	25,000
Labeled						
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28L</b>	100	100	100	100	100
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47L</b>	100	100	100	100	100
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99L</b>	100	100	100	100	100
<b>2,2',4,4',6-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>100L</b>	100	100	100	100	100
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153L</b>	100	100	100	100	100
<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154L</b>	100	100	100	100	100
<b>2,2',3,4,4',5',6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183L</b>	100	100	100	100	100
<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209L</b>	1000	1000	1000	1000	1000
Labeled Cleanup						
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139L</b>	100	100	100	100	100
Labeled Injection Internal						
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>PCB-52L</b>	100	100	100	100	100
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>PCB-138L</b>	100	100	100	100	100

## U.S. EPA Method 1614 Standard Mixtures

Catalog #	Compound	Amount
EO-5277	<b>EPA Method 1614 Labeled Surrogate Stock Solution</b>	1.2 mL in Nonane

Labeled	Congener	(ng/mL)
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28L</b>	1000
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47L</b>	1000
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99L</b>	1000
<b>2,2',4,4',6-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>100L</b>	1000
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153L</b>	1000
<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154L</b>	1000
<b>2,2',3,4,4',5,6'-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183L</b>	1000
<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209L</b>	10,000

EO-5276	<b>EPA Method 1614 Labeled Cleanup Stock Solution</b>	1.2 mL in Nonane
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Labeled	Congener	(ng/mL)
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139L</b>	1000

EO-5275	<b>EPA Method 1614 Labeled Injection Internal Stock Solution</b>	1.2 mL in Nonane
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Labeled	Congener	(ng/mL)
<b>2,2',5,5'-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>PCB-52L</b>	5000
<b>2,2',3,4,4',5'-HexaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>PCB-138L</b>	5000

EO-5278	<b>EPA Method 1614 Native PAR Stock Solution</b>	1.2 mL in Nonane
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Unlabeled	Congener	(ng/mL)
<b>2,4,4'-TriBDE</b>	<b>28</b>	1000
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	1000
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	1000
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	1000
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	1000
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	1000
<b>2,2',3,4,4',5,6'-HeptaBDE</b>	<b>183</b>	1000
<b>DecaBDE</b>	<b>209</b>	10,000

## RoHS BDE Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EO-5402	<b>RoHS PBDE Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> EO-5402-CS1	<b>RoHS PBDE Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5402-CS2	<b>RoHS PBDE Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5402-CS3	<b>RoHS PBDE Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5402-CS4	<b>RoHS PBDE Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5402-CS5	<b>RoHS PBDE Calibration Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	BDE	CS1	CS2	CS3	CS4	CS5
<b>4-MonoBDE</b>	<b>3</b>	1	5	20	100	500
<b>2,4-DiBDE</b>	<b>7</b>	1	5	20	100	500
<b>4,4'-DiBDE</b>	<b>15</b>	1	5	20	100	500
<b>2,2',4-TriBDE</b>	<b>17</b>	1	5	20	100	500
<b>2,4,4'-TriBDE</b>	<b>28</b>	1	5	20	100	500
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	1	5	20	100	500
<b>2,2',4,5'-TetraBDE</b>	<b>49</b>	1	5	20	100	500
<b>2,3',4,4'-TetraBDE</b>	<b>66</b>	1	5	20	100	500
<b>2,3',4',6-TetraBDE</b>	<b>71</b>	1	5	20	100	500
<b>3,3',4,4'-TetraBDE</b>	<b>77</b>	1	5	20	100	500
<b>2,2',3,4,4'-PentaBDE</b>	<b>85</b>	1	5	20	100	500
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	1	5	20	100	500
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	1	5	20	100	500
<b>2,3',4,4',6-PentaBDE</b>	<b>119</b>	1	5	20	100	500
<b>3,3',4,4',5-PentaBDE</b>	<b>126</b>	1	5	20	100	500
<b>2,2',3,4,4',5'-HexaBDE</b>	<b>138</b>	2	10	40	200	1000
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	2	10	40	200	1000
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	2	10	40	200	1000
<b>2,2',4,4',6,6'-HexaBDE</b>	<b>155</b>	2	10	40	200	1000
<b>2,3,4,4',5,6-HexaBDE</b>	<b>166</b>	2	10	40	200	1000
<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>181</b>	2	10	40	200	1000
<b>2,2',3,4,4',5',6-HeptaBDE</b>	<b>183</b>	2	10	40	200	1000
<b>2,3,3',4,4',5,6-HeptaBDE</b>	<b>190</b>	2	10	40	200	1000
<b>2,2',3,4,4',5,5',6-OctaBDE</b>	<b>203</b>	2	10	40	200	1000
<b>2,3,3',4,4',5,5',6-OctaBDE</b>	<b>205</b>	2	10	40	200	1000
<b>2,2',3,3',4,4',5,5',6-NonaBDE</b>	<b>206</b>	5	25	100	500	2500
<b>2,2',3,3',4,4',5,6,6'-NonaBDE</b>	<b>207</b>	5	25	100	500	2500
<b>DecaBDE</b>	<b>209</b>	5	25	100	500	2500
<b>Labeled</b>						
<b>4-MonoBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b>	100	100	100	100	100
<b>4,4'-DiBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	100	100	100	100	100
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	100	100	100	100	100
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b>	100	100	100	100	100
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b>	100	100	100	100	100
<b>2,2',3,4,4',5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b>	200	200	200	200	200
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	200	200	200	200	200
<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154</b>	200	200	200	200	200
<b>2,2',3,4,4',5',6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b>	200	200	200	200	200
<b>2,2',3,4,4',5,6,6'-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>204</b>	200	200	200	200	200
<b>2,2',3,3',4,4',5,6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b>	500	500	500	500	500
<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	500	500	500	500	500

## RoHS BDE Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EO-5403	<b>RoHS PBDE Cleanup Spike</b>	1.2 mL in Nonane
	Labeled	BDE (ng/mL)
	<b>4-MonoBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b> 100
	<b>4,4'-DiBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b> 100
	<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b> 100
	<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b> 100
	<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b> 100
	<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b> 200
	<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154</b> 200
	<b>2,2',3,4,4',5,6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b> 200
	<b>2,2',3,4,4',5,6,6'-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>204</b> 200
	<b>2,2',3,3',4,4',5,6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b> 500
	<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b> 500
<b>NEW</b> EO-5404	<b>RoHS PBDE Syringe Spike</b>	1.2 mL in Nonane
	Labeled	
	<b>2,2',3,4,4',5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>138</b> 200
<b>NEW</b> EO-5405	<b>RoHS PBDE Native PAR Spike</b>	1.2 mL in Nonane
	Unlabeled	
	<b>4-MonoBDE</b>	<b>3</b> 1000
	<b>2,4-DiBDE</b>	<b>7</b> 1000
	<b>4,4'-DiBDE</b>	<b>15</b> 1000
	<b>2,2',4-TriBDE</b>	<b>17</b> 1000
	<b>2,4,4'-TriBDE</b>	<b>28</b> 1000
	<b>2,2',4,4'-TetraBDE</b>	<b>47</b> 1000
	<b>2,2',4,5'-TetraBDE</b>	<b>49</b> 1000
	<b>2,3',4,4'-TetraBDE</b>	<b>66</b> 1000
	<b>2,3',4',6-TetraBDE</b>	<b>71</b> 1000
	<b>3,3',4,4'-TetraBDE</b>	<b>77</b> 1000
	<b>2,2',3,4,4'-PentaBDE</b>	<b>85</b> 1000
	<b>2,2',4,4',5-PentaBDE</b>	<b>99</b> 1000
	<b>2,2',4,4',6-PentaBDE</b>	<b>100</b> 1000
	<b>2,3',4,4',6-PentaBDE</b>	<b>119</b> 1000
	<b>3,3',4,4',5-PentaBDE</b>	<b>126</b> 1000
	<b>2,2',3,4,4',5'-HexaBDE</b>	<b>138</b> 2000
	<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b> 2000
	<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b> 2000
	<b>2,2',4,4',6,6'-HexaBDE</b>	<b>155</b> 2000
	<b>2,3,4,4',5,6-HexaBDE</b>	<b>166</b> 2000
	<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>181</b> 2000
	<b>2,2',3,4,4',5',6-HeptaBDE</b>	<b>183</b> 2000
	<b>2,3,3',4,4',5,6-HeptaBDE</b>	<b>190</b> 2000
	<b>2,2',3,4,4',5,5',6-OctaBDE</b>	<b>203</b> 2000
	<b>2,3,3',4,4',5,5',6-OctaBDE</b>	<b>205</b> 2000
	<b>2,2',3,3',4,4',5,5',6-NonaBDE</b>	<b>206</b> 5000
	<b>2,2',3,3',4,4',5,6,6'-NonaBDE</b>	<b>207</b> 5000
	<b>DecaBDE</b>	<b>209</b> 5000

## RoHS BDE Standard Mixtures

Catalog #	Compound	Amount
EO-5425	<b>RoHS Screening PBDE Calibration Solutions [CS1-CS3]</b>	Set of 3 x 0.2 mL in Nonane
EO-5425-CS1	<b>RoHS Screening PBDE Calibration Solution [CS1]</b>	0.2 mL in Nonane
EO-5425-CS2	<b>RoHS Screening PBDE Calibration Solution [CS2]</b>	0.2 mL in Nonane
EO-5425-CS3	<b>RoHS Screening PBDE Calibration Solution [CS3]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	BDE	CS1	CS2	CS3
<b>4,4'-DiBDE</b>	<b>15</b>	20	100	1000
<b>2,4,4'-TriBDE</b>	<b>28</b>	20	100	1000
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	20	100	1000
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	20	100	1000
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	20	100	1000
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	20	100	1000
<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>183</b>	20	100	1000
<b>2,2',3,3',4,4',6,6'-OctaBDE</b>	<b>197</b>	50	250	2500
<b>2,2',3,3',4,4',5,5',6-NonaBDE</b>	<b>206</b>	100	500	5000
<b>2,2',3,3',4,4',5,6,6'-NonaBDE</b>	<b>207</b>	50	250	2500
<b>2,2',3,3',4,5,5',6,6'-NonaBDE</b>	<b>208</b>	50	250	2500
<b>DecaBDE</b>	<b>209</b>	500	2500	25,000
Labeled				
<b>4,4'-DiBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	100	100	100
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	100	100	100
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b>	100	100	100
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b>	100	100	100
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	100	100	100
<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154</b>	100	100	100
<b>2,2',3,4,4',5,6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b>	100	100	100
<b>2,2',3,3',4,4',6,6'-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>197</b>	250	250	250
<b>2,2',3,3',4,4',5,5',6-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	500	500	500
<b>2,2',3,3',4,4',5,6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b>	250	250	250
<b>2,2',3,3',4,5,5',6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	250	250	250
<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	25,000	25,000	25,000

## RoHS BDE Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EO-5426	<b>RoHS Screening PBDE Cleanup Spike</b>	1.2 mL in Nonane
	Labeled	BDE (ng/mL)
	<b>4,4'-DiBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b> 1000
	<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b> 1000
	<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b> 1000
	<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b> 1000
	<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b> 1000
	<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154</b> 1000
	<b>2,2',3,4,4',5,6'-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b> 1000
	<b>2,2',3,3',4,4',6,6'-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>197</b> 2500
	<b>2,2',3,3',4,4',5,5',6-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b> 5000
	<b>2,2',3,3',4,5,5',6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b> 2500
	<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b> 25,000
<b>NEW</b> EO-5427	<b>RoHS Screening PBDE Syringe Spike</b>	1.2 mL in Nonane
	Labeled	
	<b>2,2',3,3',4,4',5,6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b> 2500
<b>NEW</b> EO-5428	<b>RoHS Screening PBDE Native PAR Spike</b>	1.2 mL in Nonane
	Unlabeled	
	<b>4,4'-DiBDE</b>	<b>15</b> 1000
	<b>2,4,4'-TriBDE</b>	<b>28</b> 1000
	<b>2,2',4,4'-TetraBDE</b>	<b>47</b> 1000
	<b>2,2',4,4',5-PentaBDE</b>	<b>99</b> 1000
	<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b> 1000
	<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b> 1000
	<b>2,2',3,4,4',5,6'-HeptaBDE</b>	<b>183</b> 1000
	<b>2,2',3,3',4,4',6,6'-OctaBDE</b>	<b>197</b> 2500
	<b>2,2',3,3',4,4',5,5',6-NonaBDE</b>	<b>206</b> 5000
	<b>2,2',3,3',4,4',5,6,6'-NonaBDE</b>	<b>207</b> 2500
	<b>2,2',3,3',4,5,5',6,6'-NonaBDE</b>	<b>208</b> 2500
	<b>DecaBDE</b>	<b>209</b> 25,000



## Brominated Diphenyl Ether (BDE) Standard Mixtures

Catalog #	Compound	Amount
EO-5104	<b>Brominated Diphenyl Ether Calibration Solutions [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane
<b>NEW</b> EO-5104-CS1	<b>Brominated Diphenyl Ether Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5104-CS2	<b>Brominated Diphenyl Ether Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5104-CS3	<b>Brominated Diphenyl Ether Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5104-CS4	<b>Brominated Diphenyl Ether Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5104-CS5	<b>Brominated Diphenyl Ether Calibration Solution [CS5]</b>	0.2 mL in Nonane
<b>NEW</b> EO-5104-CS6	<b>Brominated Diphenyl Ether Calibration Solution [CS6]</b>	0.2 mL in Nonane

Unlabeled	BDE	All concentrations are in ng/mL (ppb)					
		CS1	CS2	CS3	CS4	CS5	CS6
<b>2-MonoBDE</b>	<b>1</b>	0.2	1	5	25	100	500
<b>3-MonoBDE</b>	<b>2</b>	0.2	1	5	25	100	500
<b>4-MonoBDE</b>	<b>3</b>	0.2	1	5	25	100	500
<b>2,4-DiBDE</b>	<b>7</b>	0.2	1	5	25	100	500
<b>2,4'-DiBDE</b>	<b>8</b>	0.2	1	5	25	100	500
<b>2,6-DiBDE</b>	<b>10</b>	0.2	1	5	25	100	500
<b>3,3'-DiBDE</b>	<b>11</b>	0.2	1	5	25	100	500
<b>3,4-DiBDE</b>	<b>12</b>	0.2	1	5	25	100	500
<b>3,4'-DiBDE</b>	<b>13</b>	0.2	1	5	25	100	500
<b>4,4'-DiBDE</b>	<b>15</b>	0.2	1	5	25	100	500
<b>2,2',4-TriBDE</b>	<b>17</b>	0.2	1	5	25	100	500
<b>2,3',4-TriBDE</b>	<b>25</b>	0.2	1	5	25	100	500
<b>2,4,4'-TriBDE</b>	<b>28</b>	0.2	1	5	25	100	500
<b>2,4,6-TriBDE</b>	<b>30</b>	0.2	1	5	25	100	500
<b>2,4',6-TriBDE</b>	<b>32</b>	0.2	1	5	25	100	500
<b>2',3,4-TriBDE</b>	<b>33</b>	0.2	1	5	25	100	500
<b>3,3',4-TriBDE</b>	<b>35</b>	0.2	1	5	25	100	500
<b>3,4,4'-TriBDE</b>	<b>37</b>	0.2	1	5	25	100	500
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	0.2	1	5	25	100	500
<b>2,2',4,5'-TetraBDE</b>	<b>49</b>	0.2	1	5	25	100	500
<b>2,3',4,4'-TetraBDE</b>	<b>66</b>	0.2	1	5	25	100	500
<b>2,3',4',6-TetraBDE</b>	<b>71</b>	0.2	1	5	25	100	500
<b>2,4,4',6-TetraBDE</b>	<b>75</b>	0.2	1	5	25	100	500
<b>3,3',4,4'-TetraBDE</b>	<b>77</b>	0.2	1	5	25	100	500
<b>2,2',3,4,4'-PentaBDE</b>	<b>85</b>	0.3	1.5	7.5	37.5	150	750
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	0.3	1.5	7.5	37.5	150	750
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	0.3	1.5	7.5	37.5	150	750
<b>2,3,4,5,6-PentaBDE</b>	<b>116</b>	0.3	1.5	7.5	37.5	150	750
<b>2,3',4,4',5-PentaBDE</b>	<b>118</b>	0.3	1.5	7.5	37.5	150	750
<b>2,3',4,4',6-PentaBDE</b>	<b>119</b>	0.3	1.5	7.5	37.5	150	750
<b>3,3',4,4',5-PentaBDE</b>	<b>126</b>	0.3	1.5	7.5	37.5	150	750
<b>2,2',3,4,4',5'-HexaBDE</b>	<b>138</b>	0.6	3	15	75	300	1500
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	0.4	2	10	50	200	1000
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	0.4	2	10	50	200	1000
<b>2,2',4,4',6,6'-HexaBDE</b>	<b>155</b>	0.4	2	10	50	200	1000
<b>2,3,4,4',5,6-HexaBDE</b>	<b>166</b>	0.4	2	10	50	200	1000
<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>181</b>	0.5	2.5	12.5	62.5	250	1250
<b>2,2',3,4,4',5',6-HeptaBDE</b>	<b>183</b>	0.5	2.5	12.5	62.5	250	1250
<b>2,3,3',4,4',5,6-HeptaBDE</b>	<b>190</b>	0.5	2.5	12.5	62.5	250	1250
Labeled							
<b>4-MonoBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b>	100	100	100	100	100	100
<b>4,4'-DiBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	100	100	100	100	100	100
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	100	100	100	100	100	100
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b>	100	100	100	100	100	100
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	100	100	100	100	100	100
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b>	100	100	100	100	100	100
<b>2,2',4,4',6-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>100</b>	100	100	100	100	100	100
<b>2,3',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	100	100	100	100	100	100
<b>3,3',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	150	150	150	150	150	150
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	200	200	200	200	200	200
<b>2,2',3,4,4',5',6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b>	250	250	250	250	250	250

## Brominated Diphenyl Ether (BDE) Standard Mixtures

Catalog #	Compound	Amount
EO-5100	<b>Polybrominated Diphenyl Ether Surrogate Spiking Solution</b>	1.2 mL in Nonane
EO-5100-10X-0.5	<b>Polybrominated Diphenyl Ether Surrogate Spiking Solution (10X stock)</b>	0.5 mL in Nonane

Labeled	BDE	EO-5100 (ng/mL)	EO-5100-10X-0.5 (ng/mL)
<b>4-MonoBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>3</b>	100	1000
<b>4,4'-DiBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	100	1000
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	100	1000
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b>	100	1000
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b>	150	1500
<b>2,2',4,4',6-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>100</b>	150	1500
<b>2,3',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>118</b>	150	1500
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	200	2000
<b>2,2',3,4,4',5,6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b>	250	2500

EO-5101	<b>Polybrominated Diphenyl Ether Performance Standard Solution</b>	1.2 mL in Nonane
EO-5101-10X-1.2	<b>Polybrominated Diphenyl Ether Performance Standard Solution (10X stock)</b>	1.2 mL in Nonane

Labeled	BDE	EO-5101	EO-5101-10X-1.2
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	100	1000
<b>3,3',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>126</b>	150	1500

EO-5103	<b>Polybrominated Diphenyl Ether Predominant Congener Mixture</b>	1.2 mL in Nonane
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Unlabeled	BDE	Amount
<b>2,2',4-TriBDE</b>	<b>17</b>	2500
<b>2,4,4'-TriBDE</b>	<b>28</b>	2500
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	2500
<b>2,3',4,4'-TetraBDE</b>	<b>66</b>	2500
<b>2,3',4',6-TetraBDE</b>	<b>71</b>	2500
<b>2,2',3,4,4'-PentaBDE</b>	<b>85</b>	2500
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	2500
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	2500
<b>2,2',3,4,4',5'-HexaBDE</b>	<b>138</b>	3750
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	2500
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	2500
<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>183</b>	2500
<b>2,3,3',4,4',5,6-HeptaBDE</b>	<b>190</b>	2500
<b>DecaBDE</b>	<b>209</b>	10,000

## Brominated Diphenyl Ether (BDE) Standard Mixtures

Catalog #	Compound	Amount
EO-5113	<b>Polybrominated Diphenyl Ether PAR Solution</b>	0.5 mL in Nonane
EO-5113-7.5X-0.5	<b>Polybrominated Diphenyl Ether PAR Solution (7.5X stock)</b>	0.5 mL in Nonane

Unlabeled	BDE	EO-5113 (ng/mL)	EO-5113-7.5X-0.5 (ng/mL)
<b>2-MonoBDE</b>	<b>1</b>	100	750
<b>3-MonoBDE</b>	<b>2</b>	100	750
<b>4-MonoBDE</b>	<b>3</b>	100	750
<b>2,4-DiBDE</b>	<b>7</b>	100	750
<b>2,4'-DiBDE</b>	<b>8</b>	100	750
<b>2,6-DiBDE</b>	<b>10</b>	100	750
<b>3,3'-DiBDE</b>	<b>11</b>	100	750
<b>3,4-DiBDE</b>	<b>12</b>	100	750
<b>3,4'-DiBDE</b>	<b>13</b>	100	750
<b>4,4'-DiBDE</b>	<b>15</b>	100	750
<b>2,2',4-TriBDE</b>	<b>17</b>	100	750
<b>2,3',4-TriBDE</b>	<b>25</b>	100	750
<b>2,4,4'-TriBDE</b>	<b>28</b>	100	750
<b>2,4,6-TriBDE</b>	<b>30</b>	100	750
<b>2,4',6-TriBDE</b>	<b>32</b>	100	750
<b>2',3,4-TriBDE</b>	<b>33</b>	100	750
<b>3,3',4-TriBDE</b>	<b>35</b>	100	750
<b>3,4,4'-TriBDE</b>	<b>37</b>	100	750
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	100	750
<b>2,2',4,5'-TetraBDE</b>	<b>49</b>	100	750
<b>2,3',4,4'-TetraBDE</b>	<b>66</b>	100	750
<b>2,3',4',6-TetraBDE</b>	<b>71</b>	100	750
<b>2,4,4',6-TetraBDE</b>	<b>75</b>	100	750
<b>3,3',4,4'-TetraBDE</b>	<b>77</b>	100	750
<b>2,2',3,4,4'-PentaBDE</b>	<b>85</b>	150	1125
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	150	1125
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	150	1125
<b>2,3,4,5,6-PentaBDE</b>	<b>116</b>	150	1125
<b>2,3',4,4',5-PentaBDE</b>	<b>118</b>	150	1125
<b>2,3',4,4',6-PentaBDE</b>	<b>119</b>	150	1125
<b>3,3',4,4',5-PentaBDE</b>	<b>126</b>	150	1125
<b>2,2',3,4,4',5'-HexaBDE</b>	<b>138</b>	300	2250
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	200	1500
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	200	1500
<b>2,2',4,4',6,6'-HexaBDE</b>	<b>155</b>	200	1500
<b>2,3,4,4',5,6-HexaBDE</b>	<b>166</b>	200	1500
<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>181</b>	250	1875
<b>2,2',3,4,4',5',6-HeptaBDE</b>	<b>183</b>	250	1875
<b>2,3,3',4,4',5,6-HeptaBDE</b>	<b>190</b>	250	1875

## Brominated Diphenyl Ether (BDE) Standard Mixtures

Catalog #	Compound	Amount
EO-5099	<b>Polybrominated Diphenyl Ether Analytical Standard Solution</b>	1.2 mL in Nonane
	Unlabeled	BDE (ng/mL)
	2-MonoBDE	1 100
	3-MonoBDE	2 100
	4-MonoBDE	3 100
	2,4-DiBDE	7 100
	2,4'-DiBDE	8 100
	2,6-DiBDE	10 100
	3,3'-DiBDE	11 100
	3,4-DiBDE	12 100
	3,4'-DiBDE	13 100
	4,4'-DiBDE	15 100
	2,2',4-TriBDE	17 100
	2,3',4-TriBDE	25 100
	2,4,4'-TriBDE	28 100
	2,4,6-TriBDE	30 100
	2,4',6-TriBDE	32 100
	2',3,4-TriBDE	33 100
	3,3',4-TriBDE	35 100
	3,4,4'-TriBDE	37 100
	2,2',4,4'-TetraBDE	47 100
	2,2',4,5'-TetraBDE	49 100
	2,3',4,4'-TetraBDE	66 100
	2,3',4',6-TetraBDE	71 100
	2,4,4',6-TetraBDE	75 100
	3,3',4,4'-TetraBDE	77 100
	2,2',3,4,4'-PentaBDE	85 150
	2,2',4,4',5-PentaBDE	99 150
	2,2',4,4',6-PentaBDE	100 150
	2,3,4,5,6-PentaBDE	116 150
	2,3',4,4',5-PentaBDE	118 150
	2,3',4,4',6-PentaBDE	119 150
	3,3',4,4',5-PentaBDE	126 150
	2,2',3,4,4',5'-HexaBDE	138 300
	2,2',4,4',5,5'-HexaBDE	153 200
	2,2',4,4',5,6'-HexaBDE	154 200
	2,2',4,4',6,6'-HexaBDE	155 200
	2,3,4,4',5,6-HexaBDE	166 200
	2,2',3,4,4',5,6-HeptaBDE	181 250
	2,2',3,4,4',5',6-HeptaBDE	183 250
	2,3,3',4,4',5,6-HeptaBDE	190 250
	Labeled	
	4-MonoBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	3 100
	4,4'-DiBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	15 100
	2,4,4'-TriBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	28 100
	2,2',4,4'-TetraBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	47 100
	3,3',4,4'-TetraBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	77 100
	2,2',4,4',5-PentaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	99 150
	2,2',4,4',6-PentaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	100 150
	2,3',4,4',5-PentaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	118 150
	3,3',4,4',5-PentaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	126 150
	2,2',4,4',5,5'-HexaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	153 200
	2,2',3,4,4',5',6-HeptaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	183 250

## Brominated Flame Retardant (BFR) Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EO-5319-A	<b>CDC BFR Calibration Standards [CS1-CS10]</b>	Set of 10 x 0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS1	<b>CDC BFR Calibration Standard [CS1]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS2	<b>CDC BFR Calibration Standard [CS2]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS3	<b>CDC BFR Calibration Standard [CS3]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS4	<b>CDC BFR Calibration Standard [CS4]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS5	<b>CDC BFR Calibration Standard [CS5]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS6	<b>CDC BFR Calibration Standard [CS6]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS7	<b>CDC BFR Calibration Standard [CS7]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS8	<b>CDC BFR Calibration Standard [CS8]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS9	<b>CDC BFR Calibration Standard [CS9]</b>	0.5 mL in Nonane
<b>NEW</b> EO-5319-A-CS10	<b>CDC BFR Calibration Standard [CS10]</b>	0.5 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	Congener	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
<b>2,2',4'-TriBDE</b>	<b>17</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,4,4'-TriBDE</b>	<b>28</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',4,4'-TetraBDE</b>	<b>47</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,3',4,4'-TetraBDE</b>	<b>66</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',4,4',6-PentaBDE</b>	<b>100</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',4,4',5-PentaBDE</b>	<b>99</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,4,4'-PentaBDE</b>	<b>85</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',4,4',5,6'-HexaBDE</b>	<b>154</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',4,4',5,5'-HexaBDE</b>	<b>153</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,4,4',5,6-HeptaBDE</b>	<b>183</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,3',4,4',5,6'-OctaBDE</b>	<b>196</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,3',4,4',6,6'-OctaBDE</b>	<b>197</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,4,4',5,5',6-OctaBDE</b>	<b>203</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,3',4,4',5,5',6-NonaBDE</b>	<b>206</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,3',4,4',5,6,6'-NonaBDE</b>	<b>207</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',3,3',4,5,5',6,6'-NonaBDE</b>	<b>208</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>DecaBDE</b>	<b>209</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>2,2',4,4',5,5'-Hexabromobiphenyl</b>	<b>153</b>	0.2	0.5	1	5	10	50	100	500	1000	2000
<b>Hexabromobenzene</b>		0.2	0.5	1	5	10	50	100	500	1000	2000
<b>1,2-Bis(pentabromophenyl) ethane</b>		0.2	0.5	1	5	10	50	100	500	1000	2000
<b>1,2-Bis(2,4,6-tribromophenoxy) ethane</b>		0.2	0.5	1	5	10	50	100	500	1000	2000
<b>γ-Hexabromocyclododecane</b>		0.2	0.5	1	5	10	50	100	500	1000	2000
<b>Labeled</b>											
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25	25	25	25	25	25	25	25	25	25
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	100	100	100	100	100	100	100	100	100	100
<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b>	75	75	75	75	75	75	75	75	75	75
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,4',6-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>100</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',5,6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4',6,6'-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>197</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',5,5',6-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>203</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4',5,5',6-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,4',5,6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,3',4,5,5',6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	75	75	75	75	75	75	75	75	75	75
<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b>	500	500	500	500	500	500	500	500	500	500
<b>2,2',4,4',5,5'-HexaBB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b>	75	75	75	75	75	75	75	75	75	75
<b>Hexabromobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>1,2-Bis(pentabromophenyl) ethane (<sup>13</sup>C<sub>14</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>1,2-Bis(2,4,6-tribromophenoxy) ethane (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>γ-Hexabromocyclododecane (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75

## Brominated Flame Retardant (BFR) Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> EO-5320-A	<b>CDC BFR Spiking Standard</b>	10 mL in Methanol
	Labeled	Congener (ng/mL)
	<b>2,4,4'-TriBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>28</b> 7.5
	<b>2,2',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>47</b> 7.5
	<b>2,2',4,4',6-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>100</b> 7.5
	<b>2,2',4,4',5-PentaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>99</b> 7.5
	<b>2,2',4,4',5,6'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>154</b> 7.5
	<b>2,2',4,4',5,5'-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b> 7.5
	<b>2,2',3,4,4',5',6-HeptaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>183</b> 7.5
	<b>2,2',3,3',4,4',6,6'-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>197</b> 7.5
	<b>2,2',3,4,4',5,5',6-OctaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>203</b> 7.5
	<b>2,2',3,3',4,4',5,5',6-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>206</b> 7.5
	<b>2,2',3,3',4,4',5,6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>207</b> 7.5
	<b>2,2',3,3',4,5,5',6,6'-NonaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b> 7.5
	<b>DecaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>209</b> 50
	<b>2,2',4,4',5,5'-HexaBB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>153</b> 7.5
	<b>Hexabromobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	7.5
	<b>1,2-Bis(pentabromophenyl) ethane (<sup>13</sup>C<sub>14</sub>,99%)</b>	7.5
	<b>1,2-Bis(2,4,6-tribromophenoxy) ethane (<sup>13</sup>C<sub>12</sub>,99%)</b>	7.5
	<b>γ-Hexabromocyclododecane (<sup>13</sup>C<sub>12</sub>,99%)</b>	7.5

EO-5169	<b>BFR Recovery Spiking Solution</b>	10 mL in 88% Hexane/ 2% Dodecane/10% Nonane
	Labeled	
	<b>1,2,3,4-TetraCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>	2.5
	<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b> 7.5
	<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b> 7.5
	<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b> 10

Notes



## Polycyclic Aromatic Hydrocarbon (PAH) Standards and Standard Mixtures

PAHs are organic compounds which can be found in natural or processed petroleum products and also are formed during combustion of carbon-based material. The robust  $^{13}\text{C}$ -PAHs produced as part of CIL's collaboration with Cerilliant complement the Deuterium-labeled PAHs suitable for routine use. New ways to monitor PAHs continue to be developed and CIL's standards evolve with these new methods.



## <sup>13</sup>C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Cambridge Isotope Laboratories, in cooperation with Cerilliant Corporation, is pleased to offer <sup>13</sup>C-labeled Polycyclic Aromatic Hydrocarbons (PAHs), as a superior alternative to deuterated standards. Although CIL has traditionally produced high-quality deuterated PAH analogs, some analysts have observed back-exchange of proton for deuterium under harsh extraction conditions and in certain matrices. If precise quantitation is required, or complete recovery information is needed, the non-exchangeable <sup>13</sup>C isotope label is the right standard to use.

### Deuterium Back-Exchange

While analysts have been using Deuterated PAH standards for years, labile deuterons are susceptible to back-exchange. The phenomenon is particularly likely to occur in acidic or catalytic matrices, when the importance of a reliable internal standard is greatest.

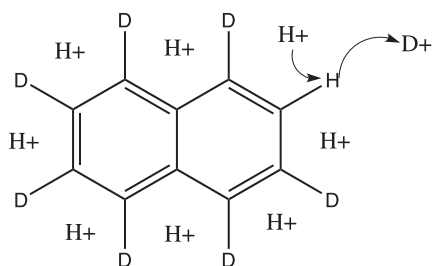
Deuterium-labeled PAH Metabolites are even more susceptible to the phenomena of back-exchange and loss of protons/deuterons in the mass spectrometer.

### Similar Mass Spectra

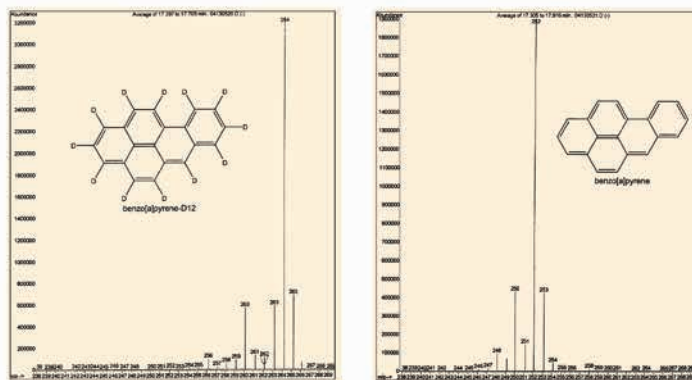
Even at lower voltages the parent ion loses a considerable number of protons or deuterons. Mass spectra of <sup>13</sup>C PAHs will show a succession of proton losses ( M-1, M-2, M-3, M-4 etc., similar to native PAHs), while mass spectra of Deuterated PAHs will show a succession of deuterium losses ( M-2,M-4,M-6, M-8, etc.).

In the chromatogram for the deuterated Benzo[a]pyrene, the proton losses at M-2,M-4, etc. are supplemented with proton losses of M-1, M-3, etc. This represents a loss of deuterons from incompletely deuterated species. As a result, the profile of the deuterated material does not correspond exactly to that of the unlabeled material. <sup>13</sup>C-labeled Benzo[a]pyrene, however, will match the unlabeled material with the 4 AMU shift being the only difference between the two profiles.

### Naphthalene-D<sub>8</sub> Deuterium-Exchange



### Deuterated PAH Mass Spectra differ from Unlabeled Mass Spectra

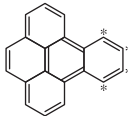


### ISO Accreditation


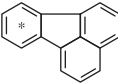
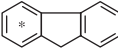
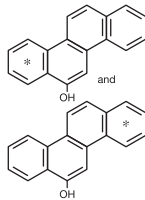
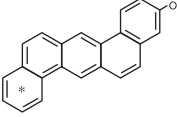
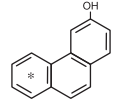
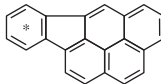
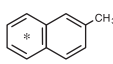

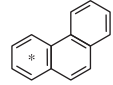
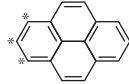
Adding to our list of firsts in the field of PAH reference standards, CIL is pleased to announce the availability of the first <sup>13</sup>C PAH parent compound standards manufactured under **ISO/IEC 17025 and ISO Guide 34 accreditation**.

Cerilliant Corporation, CIL's longtime collaborator for <sup>13</sup>C PAH standards, has received accreditation under ISO Guide 34 for Reference Material Producers, as well as ISO/IEC 17025 for Testing and Calibration Laboratories. These two new accreditations provide a powerful boost to their already impressive quality credentials, including ISO-9001:2008.

## <sup>13</sup>C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound		Concentration	Amount
CLM-1643-1.2	<b>Acenaphthene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-2477-1.2	<b>Acenaphthylene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-1333-1.2	<b>Anthracene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3602-1.2	<b>Benzo[a]anthracene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3599-1.2	<b>Benzo[b]fluoranthene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3756-1.2	<b>Benzo[k]fluoranthene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-1364-1.2	<b>Benzo[g,h,i]perylene</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-2722-1.2	<b>Benzo[a]pyrene</b> ( <sup>13</sup> C <sub>4</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-6170-1.2	<b>Benzo[e]pyrene</b> (9,10,11,12- <sup>13</sup> C <sub>4</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8267-1.2	<b>1-Chloropyrene</b> (mix of ring labeling) ( <sup>13</sup> C <sub>6</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
CLM-3757-1.2	<b>Chrysene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3598-1.2	<b>Dibenz[a,h]anthracene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3835-1.2	<b>Dibenzo[a,e]pyrene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL

## <sup>13</sup>C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound		Concentration	Amount
CLM-3774-A	<b>Dibenzo[<i>a,i</i>]pyrene</b> ( <sup>13</sup> C <sub>12</sub> ,99%)		50 ± 5 µg/mL in Nonane	1.2 mL
CLM-3597-1.2	<b>Fluoranthene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3596-1.2	<b>Fluorene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-4860-1.2	<b>6-Hydroxychrysene</b> (mix of ring labeling) ( <sup>13</sup> C <sub>6</sub> ,99%)		50 ± 5 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-6890-1.2	<b>3-Hydroxydibenz[<i>a,h</i>]anthracene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		50 ± 5 µg/mL in Acetonitrile	1.2 mL
CLM-4859-1.2	<b>3-Hydroxyphenanthrene</b> (ring- <sup>13</sup> C <sub>6</sub> ,99%)		50 ± 5 µg/mL in Acetonitrile	1.2 mL
CLM-3600-1.2	<b>Indeno[1,2,3-<i>cd</i>]pyrene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3621-1.2	<b>2-Methylnaphthalene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-1332-1.2	<b>Naphthalene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-2451-1.2	<b>Phenanthrene</b> ( <sup>13</sup> C <sub>6</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3601-1.2	<b>Pyrene</b> (1,2,3- <sup>13</sup> C <sub>3</sub> ,99%)		100 ± 10 µg/mL in Nonane	1.2 mL

# Polycyclic Aromatic Hydrocarbon (PAH) Standards and Standard Mixtures

## Deuterium Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-108-1.2	<b>Acenaphthene (D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-108-0.1			Neat	0.1 g
DLM-108-1			Neat	1 g
DLM-108-5			Neat	5 g
DLM-2204-1.2	<b>Acenaphthylene (D<sub>8</sub>,98%)</b>	C <sub>12</sub> D <sub>8</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-2204-0.1			Neat	0.1 g
DLM-849-0.1	<b>Acridine (D<sub>9</sub>,98%)</b>	C <sub>13</sub> D <sub>9</sub> N	Neat	0.1 g
DLM-849-0.5			Neat	0.5 g
DLM-102-1.2	<b>Anthracene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-102-1			Neat	1 g
DLM-102-5			Neat	5 g
DLM-610-1.2	<b>Benz[a]anthracene (D<sub>12</sub>,98%)</b>	C <sub>18</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-610-0.1			Neat	0.1 g
DLM-2136-1.2	<b>Benzo[b]fluoranthene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-2136-0.01			Neat	0.01 g
DLM-1923-1.2	<b>Benzo[k]fluoranthene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-1923-0.01			Neat	0.01 g
DLM-2135-1.2	<b>Benzo[g,h,i]perylene (D<sub>12</sub>,98%)</b>	C <sub>22</sub> D <sub>12</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-2135-0.01			Neat	0.01 g
DLM-258-1.2	<b>Benzo[a]pyrene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-258-0.01			Neat	0.01 g
DLM-258-0.05			Neat	0.05 g
DLM-258-0.1			Neat	0.1 g
DLM-257-1.2	<b>Benzo[e]pyrene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-257-0.01			Neat	0.01 g
<b>NEW</b> DLM-2005-1.2	<b>2-Chloronaphthalene (D<sub>7</sub>,98%)</b>	C <sub>10</sub> D <sub>7</sub> Cl	100 µg/mL in Nonane	1.2 mL
DLM-261-1.2	<b>Chrysene (D<sub>12</sub>,98%)</b>	C <sub>18</sub> D <sub>12</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-261-0.1			Neat	0.1 g
DLM-261-1			Neat	1 g
DLM-2715-1.2	<b>Coronene (D<sub>12</sub>,97%)</b>	C <sub>24</sub> D <sub>12</sub>	200 µg/mL in Benzene	1.2 mL
<b>NEW</b> DLM-2715-0.01			Neat	0.1 g
DLM-2715-0.1			Neat	1 g
DLM-3843-1.2	<b>Dibenz[a,j]acridine (D<sub>13</sub>,98%)</b>	C <sub>21</sub> D <sub>13</sub> N	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-677-1.2	<b>Dibenz[a,h]anthracene (D<sub>14</sub>,98%)</b>	C <sub>22</sub> D <sub>14</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-677-0.1			Neat	0.1 g
DLM-3740-1.2	<b>Dibenzo[a,i]pyrene (D<sub>14</sub>,98%)</b>	C <sub>24</sub> D <sub>14</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-3841-1.2	<b>7H-Dibenzo[c,g]carbazole (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>13</sub> N	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-2845-1.2	<b>9,10-Dimethylantracene (D<sub>14</sub>,98%)</b>	C <sub>16</sub> D <sub>14</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-2852-1.2	<b>1,6-Dimethylnaphthalene (D<sub>12</sub>,98%)</b>	C <sub>12</sub> D <sub>12</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-2854-1.2	<b>1,8-Dimethylnaphthalene (D<sub>12</sub>,98%)</b>	C <sub>12</sub> D <sub>12</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-2853-1.2	<b>2,6-Dimethylnaphthalene (D<sub>12</sub>,98%)</b>	C <sub>12</sub> D <sub>12</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-2140-1.2	<b>Fluoranthene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-2140-0.1			Neat	0.1 g
DLM-1123-1.2	<b>Fluorene (D<sub>10</sub>,98%)</b>	C <sub>13</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-1123-0.1			Neat	0.1 g
DLM-1123-1			Neat	1 g
DLM-2148-1.2	<b>Indeno[1,2,3-cd]pyrene (D<sub>12</sub>,98%)</b>	C <sub>22</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-2148-0.01			Neat	0.01 g
DLM-3842-1.2	<b>5-Methylchrysene (methyl-D<sub>3</sub>,98%)</b>	C <sub>19</sub> D <sub>3</sub> H <sub>11</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-1607-1	<b>1-Methylnaphthalene (D<sub>10</sub>,98%)</b>	C <sub>11</sub> D <sub>10</sub>	Neat	1 g
DLM-1322-1.2	<b>2-Methylnaphthalene (D<sub>10</sub>,98%)</b>	C <sub>11</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-365-1.2	<b>Naphthalene (D<sub>8</sub>,99%)</b>	C <sub>10</sub> D <sub>8</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-365-1			Neat	1 g
DLM-365-5			Neat	5 g
DLM-365-10			Neat	10 g
<b>NEW</b> DLM-3875-10	<b>Naphthalene (D<sub>8</sub>,99.5%)</b>	C <sub>10</sub> D <sub>8</sub>	Neat	10 g
DLM-3836-1.2	<b>5-Nitroacenaphthene (D<sub>9</sub>,98%)</b>	C <sub>12</sub> D <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-4712-1.2	<b>9-Nitroanthracene (D<sub>9</sub>,98%)</b>	C <sub>14</sub> D <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL

## Deuterium Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-3839-1.2	<b>6-Nitrochrysene (D<sub>11</sub>,98%)</b>	C <sub>18</sub> D <sub>11</sub> NO <sub>2</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-4711-1.2	<b>3-Nitrofluoranthene (D<sub>9</sub>,98%)</b> (CP: 87%)	C <sub>16</sub> D <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-3837-1.2	<b>2-Nitrofluorene (D<sub>9</sub>,98%)</b>	C <sub>13</sub> D <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-1528-1.2	<b>1-Nitropyrene (D<sub>9</sub>,98%)</b>	C <sub>18</sub> D <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-366-1.2	<b>Perylene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-366-0.1			Neat	0.1 g
DLM-366-1			Neat	1 g
DLM-371-1.2	<b>Phenanthrene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-371-0.1			Neat	0.1 g
DLM-371-1			Neat	1 g
DLM-155-1.2	<b>Pyrene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-155-0.1			Neat	0.1 g
DLM-155-0.5			Neat	0.5 g
DLM-450-1	<b>o-Terphenyl (D<sub>14</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (C <sub>6</sub> D <sub>5</sub> ) <sub>2</sub>	Neat	1g
DLM-382-1.2	<b>p-Terphenyl (D<sub>14</sub>,98)</b>	C <sub>6</sub> D <sub>4</sub> (C <sub>6</sub> D <sub>5</sub> ) <sub>2</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-382-1			Neat	1 g
DLM-601-0.1	<b>Triphenylene (D<sub>12</sub>,98%)</b>	C <sub>18</sub> D <sub>12</sub>	Neat	0.1 g
DLM-601-1			Neat	1 g

## Unlabeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound	Formula	Concentration	Amount
ULM-7413-1.2	<b>Acenaphthene</b>	C <sub>12</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7422-1.2	<b>Acenaphthylene</b>	C <sub>12</sub> H <sub>8</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7412-1.2	<b>Anthracene</b>	C <sub>14</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-2415-1.2	<b>Benz[a]anthracene</b>	C <sub>18</sub> H <sub>12</sub>	1 mg/mL in Methanol	1.2 mL
ULM-2415-0.1			Neat	0.1 g
ULM-2416-1.2	<b>Benzo[b]fluoranthene</b>	C <sub>20</sub> H <sub>12</sub>	1 mg/mL in Acetone	1.2 mL
ULM-2416-0.1			Neat	0.1 g
<b>NEW</b> ULM-8155-25	<b>Benzo[c]phenanthrene</b>	C <sub>18</sub> H <sub>12</sub>	Neat	25 mg
ULM-2411-25	<b>Benzo[j]fluoranthene</b>	C <sub>20</sub> H <sub>12</sub>	Neat	25 mg
ULM-2417-0.1	<b>Benzo[k]fluoranthene</b>	C <sub>20</sub> H <sub>12</sub>	Neat	0.1 g
ULM-2418-1.2	<b>Benzo[g,h,i]perylene</b>	C <sub>22</sub> H <sub>12</sub>	1 mg/mL in Methylene chloride	1.2 mL
ULM-2418-0.1			Neat	0.1 g
<b>NEW</b> ULM-8717-1.2	<b>Benzo[a]pyrene</b>	C <sub>20</sub> H <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-2412-0.1			Neat	0.1 g
ULM-7423-1.2	<b>Benzo[e]pyrene</b>	C <sub>20</sub> H <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
<b>NEW</b> ULM-8269-1.2	<b>9-Chloroanthracene</b>	C <sub>14</sub> H <sub>9</sub> Cl	50 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-8270-1.2	<b>9-Chlorophenanthrene</b>	C <sub>14</sub> H <sub>9</sub> Cl	50 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-8268-1.2	<b>1-Chloropyrene</b>	C <sub>16</sub> H <sub>9</sub> Cl	50 µg/mL in Toluene	1.2 mL
ULM-7424-1.2	<b>Chrysene</b>	C <sub>18</sub> H <sub>12</sub>	200 µg/mL in Toluene	1.2 mL
ULM-6576-1.2	<b>Coronene</b>	C <sub>24</sub> H <sub>12</sub>	200 µg/mL in Benzene	1.2 mL
ULM-3884-1.2	<b>Dibenz[a,j]acridine</b>	C <sub>21</sub> H <sub>13</sub> N	50 µg/mL in Toluene	1.2 mL
ULM-3884-25			Neat	25 mg
ULM-2422-1.2	<b>Dibenz[a,h]anthracene</b>	C <sub>22</sub> H <sub>14</sub>	1 mg/mL in Methylene chloride	1.2 mL
ULM-2422-0.1			Neat	0.1 g
ULM-3885-1.2	<b>7H-Dibenzo[c,g]carbazole</b>	C <sub>20</sub> H <sub>13</sub> N	50 µg/mL in Toluene	1.2 mL
ULM-6671-1.2	<b>Dibenzo[a,e]fluoranthene</b>	C <sub>24</sub> H <sub>14</sub>	200 µg/mL in Toluene	1.2 mL
ULM-1226-0.01	<b>Dibenzo[a,e]pyrene</b>	C <sub>24</sub> H <sub>14</sub>	Neat	0.01 g
ULM-1227-0.01	<b>Dibenzo[a,h]pyrene</b>	C <sub>24</sub> H <sub>14</sub>	Neat	0.01 g
ULM-2423-1.2	<b>Dibenzo[a,i]pyrene</b>	C <sub>24</sub> H <sub>14</sub>	200 µg/mL in Toluene	1.2 mL
ULM-1253-1.2	<b>Dibenzo[a,l]pyrene</b>	C <sub>24</sub> H <sub>14</sub>	200 µg/mL in Toluene	1.2 mL
ULM-1253-25			Neat	25 mg
ULM-7421-1.2	<b>Fluoranthene</b>	C <sub>16</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7414-1.2	<b>Fluorene</b>	C <sub>13</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-6181-1.2	<b>1,8-Dimethylnaphthalene</b>	C <sub>12</sub> H <sub>12</sub>	50 µg/mL in Toluene	1.2 mL
ULM-7271-1.2	<b>2,6-Dimethylnaphthalene</b>	C <sub>12</sub> H <sub>12</sub>	50 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-8464-1.2	<b>2-Hydroxyphenanthrene</b>	C <sub>14</sub> H <sub>10</sub> O	50 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-7446-1.2	<b>3-Hydroxyphenanthrene</b>	C <sub>14</sub> H <sub>10</sub> O	50 µg/mL in Acetonitrile	1.2 mL
ULM-2426-1.2	<b>Indeno[1,2,3-cd]pyrene</b>	C <sub>22</sub> H <sub>12</sub>	1 mg/mL in Methylene chloride	1.2 mL
ULM-2426-25			Neat	25 mg
ULM-6235-1.2	<b>5-Methylchrysene</b>	C <sub>19</sub> H <sub>14</sub>	50 µg/mL in Toluene	1.2 ml
ULM-7416-1.2	<b>2-Methylnaphthalene</b>	C <sub>11</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7425-1.2	<b>Naphthalene</b>	C <sub>10</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-3883-1.2	<b>2-Nitrofluorene</b>	C <sub>13</sub> H <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene	1.2 mL
ULM-3978-1.2	<b>1-Nitropyrene</b>	C <sub>18</sub> H <sub>9</sub> NO <sub>2</sub>	50 µg/mL in Toluene	1.2 mL
ULM-7426-1.2	<b>Perylene</b>	C <sub>20</sub> H <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7427-1.2	<b>Phenanthrene</b>	C <sub>14</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7417-1.2	<b>Pyrene</b>	C <sub>16</sub> H <sub>10</sub>	200 µg/mL in Toluene	1.2 mL
ULM-7428-1.2	<b>p-Terphenyl</b>	C <sub>18</sub> H <sub>14</sub>	200 µg/mL in Isooctane	1.2 mL

## Isotope Labeled PAH Standard Mixtures

Catalog #	Compound	Amount
ES-4087	<sup>13</sup> C-Labeled EPA 16 PAH Cocktail	1.2 mL in Nonane

Labeled	(µg/mL)
Acenaphthene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Acenaphthylene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Benz[a]anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Benzo[b]fluoranthene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Benzo[k]fluoranthene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Benzo[g,h,i]perylene ( <sup>13</sup> C <sub>12</sub> ,99%)	5
Benzo[a]pyrene ( <sup>13</sup> C <sub>4</sub> ,99%)	5
Chrysene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Dibenz[a,h]anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Fluoranthene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Fluorene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Indeno[1,2,3-cd]pyrene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Naphthalene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Phenanthrene ( <sup>13</sup> C <sub>6</sub> ,99%)	5
Pyrene ( <sup>13</sup> C <sub>3</sub> ,99%)	5

ES-2528	D-Labeled PAH Cocktail for CARB Method 429	1 mL in Benzene-D <sub>6</sub>
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Labeled	
Acenaphthene (D <sub>10</sub> ,98%)	100
Acenaphthylene (D <sub>8</sub> ,98%)	100
Anthracene (D <sub>10</sub> ,98%)	100
Benz[a]anthracene (D <sub>12</sub> ,98%)	100
Benzo[b]fluoranthene (D <sub>12</sub> ,98%)	100
Benzo[k]fluoranthene (D <sub>12</sub> ,98%)	100
Benzo[g,h,i]perylene (D <sub>12</sub> ,98%)	100
Benzo[a]pyrene (D <sub>12</sub> ,98%)	100
Chrysene (D <sub>12</sub> ,98%)	100
Dibenz[a,h]anthracene (D <sub>14</sub> ,98%)	100
Fluoranthene (D <sub>10</sub> ,98%)	100
Fluorene (D <sub>10</sub> ,98%)	100
Indeno[1,2,3-cd]pyrene (D <sub>12</sub> ,98%)	100
Naphthalene (D <sub>8</sub> ,99%)	100
Phenanthrene (D <sub>10</sub> ,98%)	100
Pyrene (D <sub>10</sub> ,98%)	100

ES-2044	D-Labeled PAH Surrogate Cocktail	1 mL in 50% Methylene chloride-D <sub>2</sub> /50% Methanol-OD
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Labeled	
Acenaphthylene (D <sub>8</sub> ,98%)	200
Benzo[a]pyrene (D <sub>12</sub> ,98%)	200
Benzo[g,h,i]perylene (D <sub>12</sub> ,98%)	200
Fluoranthene (D <sub>10</sub> ,98%)	200
Naphthalene (D <sub>8</sub> ,99%)	200
Phenanthrene (D <sub>10</sub> ,98%)	200
Pyrene (D <sub>10</sub> ,98%)	200

<b>NEW</b> ES-5386	PAH-SIM Recovery Standard Mixture	1.2 mL in Methylene chloride-D <sub>2</sub>
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Labeled	
2-Methylnaphthalene (D <sub>10</sub> ,98%)	1000
Anthracene (D <sub>10</sub> ,98%)	1000
p-Terphenyl (D <sub>14</sub> ,98%)	1000
Benzo[e]pyrene (D <sub>12</sub> ,98%)	1000

## Isotope Labeled PAH Standard Mixtures

Catalog #	Compound	Amount
ES-2043	"EEC Six" PAH Cocktail	1.2 mL in Benzene-D <sub>6</sub>

Labeled	(µg/mL)
Benzo[b]fluoranthene (D <sub>12</sub> ,98%)	1000
Benzo[k]fluoranthene (D <sub>12</sub> ,98%)	1000
Benzo[g,h,i]perylene (D <sub>12</sub> ,98%)	1000
Benzo[a]pyrene (D <sub>12</sub> ,98%)	1000
Indeno[1,2,3-cd]pyrene (D <sub>12</sub> ,98%)	1000
Fluoranthene (D <sub>10</sub> ,98%)	1000

<b>NEW</b> ES-5164	<b>PAH Surrogate Standard Mixture</b>	10 mL in 90% Toluene/ 10% Isooctane
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Labeled	
Naphthalene (D <sub>8</sub> ,99%)	200
Benz[a]anthracene (D <sub>12</sub> ,98%)	200
Phenanthrene (D <sub>10</sub> ,98%)	200
Fluoranthene (D <sub>10</sub> ,98%)	200
Benzo[b]fluoranthene (D <sub>12</sub> ,98%)	200
Benzo[a]pyrene (D <sub>12</sub> ,98%)	200
Benzo[g,h,i]perylene (D <sub>12</sub> ,98%)	200
Indeno[1,2,3-cd]pyrene (D <sub>12</sub> ,98%)	200
Dibenz[a,h]anthracene (D <sub>14</sub> ,98%)	200
Acenaphthylene (D <sub>8</sub> ,98%)	200
Acenaphthene (D <sub>10</sub> ,98%)	200
Fluorene (D <sub>10</sub> ,98%)	200
Pyrene (D <sub>10</sub> ,98%)	200
Benzo[k]fluoranthene (D <sub>12</sub> ,98%)	200
Perylene (D <sub>12</sub> ,98%)	200
Chrysene (D <sub>12</sub> ,98%)	200

<b>NEW</b> ES-5438	<b>PAH Native Standard Mixture</b>	1.2 mL in 90% Toluene/ 10% Isooctane
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Unlabeled	
Naphthalene	200
Benz[a]anthracene	200
Phenanthrene	200
Fluoranthene	200
Benzo[b]fluoranthene	200
Benzo[a]pyrene	200
Benzo[g,h,i]perylene	200
Indeno[1,2,3-cd]pyrene	200
Dibenz[a,h]anthracene	200
Acenaphthylene	200
Acenaphthene	200
Fluorene	200
Pyrene	200
Benzo[k]fluoranthene	200
Perylene	200
Chrysene	200



## Isotope Labeled Polychlorinated Naphthalene (PCN) Standards

Catalog #	Compound	Concentration	Amount
ECN-5240	<b>1,2,3,4-Tetrachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b> (CP: 96%)	10 µg/mL in Isooctane	1.2 mL
ECN-5241	<b>1,3,5,7-Tetrachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b>	10 µg/mL in Isooctane	1.2 mL
ECN-5250	<b>1,2,3,5,7-Pentachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b>	10 µg/mL in Isooctane	1.2 mL
ECN-5260	<b>1,2,3,4,5,7-Hexachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b>	10 µg/mL in Isooctane	1.2 mL
ECN-5261	<b>1,2,3,5,6,7-Hexachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b> (contains 0.2% native)	10 µg/mL in Isooctane	1.2 mL
ECN-5270	<b>1,2,3,4,5,6,7-Heptachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b> (contains 2% native)	10 µg/mL in Isooctane	1.2 mL
ECN-5280	<b>Octachloronaphthalene (<sup>13</sup>C<sub>10</sub>,99%)</b>	10 µg/mL in Isooctane	1.2 mL

## Unlabeled Polychlorinated Naphthalene (PCN) Standards

ECN-2610	<b>1-Monochloronaphthalene</b> (CP: 90%, 10% 2-Monochloronaphthalene)	100 µg/mL in Nonane	1 mL
ECN-2611	<b>2-Monochloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2620	<b>1,2-Dichloronaphthalene (CP: 92%)</b>	100 µg/mL in Nonane	1 mL
ECN-2621	<b>1,4-Dichloronaphthalene (CP: 92%)</b>	100 µg/mL in Nonane	1 mL
ECN-2622	<b>1,5-Dichloronaphthalene (CP: 91%)</b>	100 µg/mL in Nonane	1 mL
ECN-2623	<b>1,8-Dichloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2624	<b>2,3-Dichloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2630	<b>1,2,3-Trichloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2640	<b>1,2,3,4-Tetrachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2642	<b>1,2,5,6-Tetrachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2641	<b>1,3,5,7-Tetrachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2643	<b>2,3,6,7-Tetrachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2652	<b>1,2,3,4,6-Pentachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2651	<b>1,2,3,5,7-Pentachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2650	<b>1,2,3,5,8-Pentachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2653	<b>1,2,3,6,7-Pentachloronaphthalene (CP: 96%)</b>	100 µg/mL in Nonane	1 mL
ECN-2660	<b>1,2,3,4,6,7-Hexachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2663	<b>1,2,3,5,6,7-Hexachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2664	<b>1,2,3,5,6,8-Hexachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2662	<b>1,2,3,5,7,8-Hexachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2665	<b>1,2,3,6,7,8-Hexachloronaphthalene (CP: 97%)</b>	100 µg/mL in Nonane	1 mL
ECN-2666	<b>1,2,4,5,6,8-Hexachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2661	<b>1,2,4,5,7,8-Hexachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2670	<b>1,2,3,4,5,6,7-Heptachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2671	<b>1,2,3,4,5,6,8-Heptachloronaphthalene</b>	100 µg/mL in Nonane	1 mL
ECN-2680	<b>Octachloronaphthalene</b>	100 µg/mL in Nonane	1 mL

## Polychlorinated Naphthalene (PCN) Standard Mixtures

Catalog #	Compound	Amount
ECN-5102	<b>Tetra-Octa PCN Mixture</b>	1.2 mL in Isooctane

Labeled	( $\mu\text{g/mL}$ )
<b>1,2,3,4-TetraCN (<math>^{13}\text{C}_{10}, 99\%</math>)</b>	1.0
<b>1,3,5,7-TetraCN (<math>^{13}\text{C}_{10}, 99\%</math>)</b>	1.0
<b>1,2,3,5,7-PentaCN (<math>^{13}\text{C}_{10}, 99\%</math>)</b>	1.0
<b>1,2,3,5,6,7-HexaCN (<math>^{13}\text{C}_{10}, 99\%</math>)</b>	1.0
<b>1,2,3,4,5,6,7-HeptaCN (<math>^{13}\text{C}_{10}, 99\%</math>)</b>	1.0
<b>OctaCN (<math>^{13}\text{C}_{10}, 99\%</math>)</b>	1.0

ECN-5178	<b>Tetra-Octa PCN Mixture</b>	1.2 mL in Nonane
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Unlabeled	
<b>1,2,3,4-TetraCN</b>	1.0
<b>1,3,5,7-TetraCN</b>	1.0
<b>1,2,3,5,7-PentaCN</b>	1.0
<b>1,2,3,5,6,7-HexaCN</b>	1.0
<b>1,2,3,4,5,6,7-HeptaCN</b>	1.0
<b>OctaCN</b>	1.0

## Halowax Technical Mixtures

ECN-1000	<b>HALOWAX 1000</b>	100 $\mu\text{g/mL}$ in Hexane	2 mL
ECN-1013	<b>HALOWAX 1013</b>	100 $\mu\text{g/mL}$ in Hexane	2 mL
ECN-1051	<b>HALOWAX 1051</b>	100 $\mu\text{g/mL}$ in Hexane	2 mL

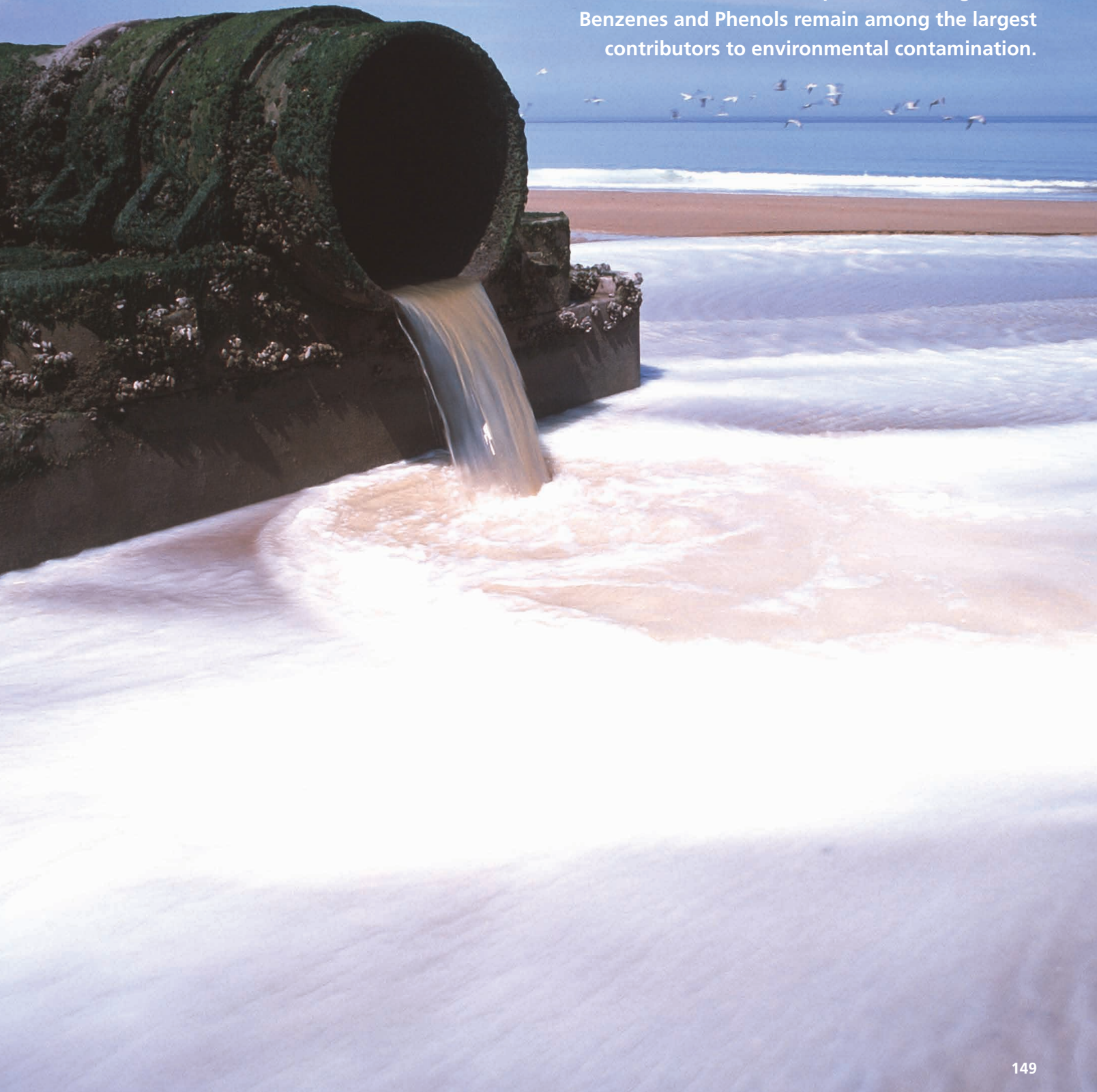
## Substituted Benzothiophenes

Substituted dibenzothiophenes, sulfur analogs of the chlorinated dibenzofurans, are of interest to analysts due to their remarkable similarities to the chlorinated dioxin class of compounds. A very high mass resolution is necessary to distinguish a chlorinated dibenzothiophene from a chlorinated dioxin. This fact, coupled with the lack of commercially available pure isomers of these sulfur-containing compounds, has led to some speculation that in certain cases, compounds being quantitated as dioxins were, in reality, dibenzothiophenes.

ET-4025	<b>2,3,7,8-Tetrachlorodibenzothiophene (unlabeled)</b>	$\text{C}_{14}\text{Cl}_4\text{H}_4\text{S}$	50 $\mu\text{g/mL}$ in Nonane	1.2 mL
DLM-4308-1.2	<b>Benzo[b]naphtho[2,1-d]-thiophene (<math>\text{D}_{10}, 96\%</math>)</b>	$\text{C}_{16}\text{D}_{10}\text{S}$	100 $\mu\text{g/mL}$ in Benzene- $\text{D}_6$	1.2 mL
ULM-7430-1.2	<b>Benzo[b]naphtho[2,1-d]-thiophene (unlabeled)</b>	$\text{C}_{16}\text{H}_{10}\text{S}$	100 $\mu\text{g/mL}$ in Benzene	1.2 mL

Notes

Chlorinated Benzenes and Phenols are common chemical contaminants produced in vast quantities and used in many industrial processes, bringing them in contact with the environment in a variety of locations. Owing to the sheer volume of use in commercial products, Halogenated Benzenes and Phenols remain among the largest contributors to environmental contamination.



## Chlorobenzene and Chlorophenol Standard Mixtures

Owing to the sheer volume of use in commercial products, Halogenated Benzenes and Phenols remain among the largest contributors to environmental contamination. The standards listed here are in routine use in many laboratories around the world.

### U.S. EPA Method 1653A

U.S EPA method 1653A is used for the determination of Pollutants in Pulp and Paper industry wastewater. This revision was promulgated in 1997, superseding the earlier method 1653. While still used primarily for the determination of Chlorophenolic compounds, Revision A incorporates several changes to the analytical procedure, including the use of specially formulated standard mixtures applicable to this revision.

### U.S. EPA CLP DMC Standard Mixtures

EPA's Contract Laboratory Program (CLP) has developed methods for the analysis of volatile and semi-volatile compounds which utilize isotopically labeled internal standards. These Deuterated Monitoring Compounds (DMCs) have been added to strengthen the analysis by providing sample-by-sample internal standard addition. CIL's CLP DMC standard mixtures are designed to match requirements of the OLC and SOM test methods.

### U.S. EPA Method 1624/1625

CIL maintains a full suite of standards used for the analysis of volatile and semi-volatile organic compounds by US EPA Method 1624/1625.

## Chlorobenzene and Chlorophenol Standard Mixtures

Catalog #	Compound	Amount
EM-1724-A	<b><sup>13</sup>C-Labeled Chlorobenzene Cocktail Solution – Mono, Di, Tri Isomers</b>	1.2 mL in Isooctane
EM-1724-B	<b><sup>13</sup>C-Labeled Chlorobenzene Cocktail Solution – Mono, Di, Tri Isomers</b>	1.2 mL in Methanol

Labeled	(µg/mL)
<b>Chlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>1,4-Dichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>1,2,4-Trichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100

EM-1725-A	<b><sup>13</sup>C-Labeled Chlorobenzene Cocktail Solution – Tetra, Penta, Hexa Isomers</b>	1.2 mL in Isooctane
EM-1725-B	<b><sup>13</sup>C-Labeled Chlorobenzene Cocktail Solution – Tetra, Penta, Hexa Isomers</b>	1.2 mL in Methanol

Labeled	(µg/mL)
<b>1,2,4,5-Tetrachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>Pentachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100

<b>NEW</b> ES-5401	<b><sup>13</sup>C-Labeled Mono-Hexa Chlorobenzene Solution</b>	1.2 mL in Toluene
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Labeled	(µg/mL)
<b>Chlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	500
<b>1,4-Dichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	500
<b>1,2,3-Trichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	500
<b>1,2,3,4-Tetrachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	500
<b>Pentachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	500
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	500

<b>NEW</b> ES-5406	<b>Native Mono-Hexa Chlorobenzene Solution</b>	1.2 mL in Toluene
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Unlabeled	(µg/mL)
<b>Chlorobenzene</b>	500
<b>1,4-Dichlorobenzene</b>	500
<b>1,2,3-Trichlorobenzene</b>	500
<b>1,2,3,4-Tetrachlorobenzene</b>	500
<b>Pentachlorobenzene</b>	500
<b>Hexachlorobenzene</b>	500

EM-1726-A	<b><sup>13</sup>C-Labeled Chlorophenol Cocktail Solution – Mono, Di, Tri Isomers</b>	1.2 mL in Isooctane
EM-1726-B	<b><sup>13</sup>C-Labeled Chlorophenol Cocktail Solution – Mono, Di, Tri Isomers</b>	1.2 mL in Methanol

Labeled	(µg/mL)
<b>4-Chlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>2,4-Dichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>2,4,6-Trichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	100

EM-1727-A	<b><sup>13</sup>C-Labeled Chlorophenol Cocktail Solution – Tri, Tetra, Penta Isomers</b>	1.2 mL in Isooctane
EM-1727-B	<b><sup>13</sup>C-Labeled Chlorophenol Cocktail Solution – Tri, Tetra, Penta Isomers</b>	1.2 mL in Methanol

Labeled	(µg/mL)
<b>2,4,5-Trichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>2,3,4,5-Tetrachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	100

## U.S. EPA Method 1653A Standard Mixtures

Catalog #	Compound	Amount
EM-4173	<b>Method 1653A Labeled Chlorophenolic Derivatives Mixture</b> (Note: unlabeled Internal Standard, 3,4,5-Trichlorophenol already formulated into the standard)	2 x 1 mL

Vial 1 (Methanol) – 1 mL

Labeled	(µg/mL)
<b>2,4-Dichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>4-Chloroguaiacol (<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>4,5-Dichlorocatechol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>4,5,6-Trichloroguaiacol (<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>3,4,5,6-Tetrachloroguaiacol (<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>3,4,5,6-Tetrachlorocatechol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	250
<b>3,4,5-Trichlorophenol (unlabeled) (I.S.)</b>	250

Vial 2 (Acetone) – 1 mL

Labeled	
<b>5-Chlorovanillin (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	250

EM-4181	<b>Method 1653A Regulated Chlorophenolics Mixture-1</b>	1 mL in Methanol
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Unlabeled

<b>Pentachlorophenol</b>	1000
<b>Tetrachloroguaiacol</b>	1000
<b>3,4,5-Trichlorocatechol</b>	1000
<b>3,4,5-Trichloroguaiacol</b>	500
<b>4,5,6-Trichloroguaiacol</b>	500
<b>2,4,6-Trichlorophenol</b>	500
<b>Tetrachlorocatechol</b>	1000
<b>2,3,4,6-Tetrachlorophenol</b>	500
<b>3,4,6-Trichlorocatechol</b>	1000
<b>3,4,6-Trichloroguaiacol</b>	500
<b>2,4,5-Trichlorophenol</b>	500

EM-4182	<b>Method 1653A Regulated Chlorophenolics Mixture-2</b>	1 mL in Acetone
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Unlabeled

<b>Trichlorosyringol</b>	500
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EM-4183	<b>Method 1653A Other Chlorophenolics Mixture-1</b>	1 mL in Methanol
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Unlabeled

<b>4-Chlorocatechol</b>	250
<b>4-Chlorophenol</b>	250
<b>3,6-Dichlorocatechol</b>	500
<b>3,4-Dichloroguaiacol</b>	500
<b>4,6-Dichloroguaiacol</b>	500
<b>2,6-Dichlorophenol</b>	500
<b>4-Chloroguaiacol</b>	250
<b>3,4-Dichlorocatechol</b>	500
<b>4,5-Dichlorocatechol</b>	500
<b>4,5-Dichloroguaiacol</b>	500
<b>2,4-Dichlorophenol</b>	500



## U.S. EPA Method 1653A Standard Mixtures

Catalog #	Compound	Amount
EM-4184	<b>Method 1653A Other Chlorophenolics Mixture-2</b>	1 mL in Acetone
	Unlabeled	(µg/mL)
	<b>2-Chlorosyringaldehyde</b>	500
	<b>5-Chlorovanillin</b>	500
	<b>6-Chlorovanillin</b>	500
	<b>2,6-Dichlorosyringaldehyde</b>	1000
	<b>5,6-Dichlorovanillin</b>	1000
EM-4185	<b>Set of Regulated Chlorophenolics Mixtures</b> <b>1 Each: EM-4181 and EM-4182</b>	2 x 1 mL
EM-4186	<b>Set of Other Chlorophenolics Mixtures</b> <b>1 Each: EM-4183 and EM-4184</b>	2 x 1 mL
EM-4180	<b>Set of Chlorophenolics Mixtures</b> <b>1 Each: EM-4181, EM-4182, EM-4183 and EM-4184</b>	4 x 1 mL

## U.S. EPA Method 1653 Standard Mixtures

EM-4018	<b>Method 1653 Unlabeled Chloroguaiacol Cocktail</b>	1 mL in Acetone
	Unlabeled	
	<b>4-Chloroguaiacol</b>	250
	<b>3,4-Dichloroguaiacol</b>	500
	<b>4,5-Dichloroguaiacol</b>	500
	<b>4,6-Dichloroguaiacol</b>	500
	<b>3,4,5-Trichloroguaiacol</b>	500
	<b>3,4,6-Trichloroguaiacol</b>	500
	<b>4,5,6-Trichloroguaiacol</b>	500
	<b>Tetrachloroguaiacol</b>	1000
EM-4028	<b>Instrument Performance Standard</b>	1 mL in Acetone
	Unlabeled	
	<b>2,2'-Difluorobiphenyl</b>	5000



## U.S. EPA CLP DMC Standard Mixtures

Catalog #	Compound	Amount
ES-5037	<b>CLP Semi-Volatiles DMC Stock Solution</b>	1.2 mL in Methylene chloride-D <sub>2</sub>

Labeled	(µg/mL)
Phenol (D <sub>5</sub> ,98%)	2000
Bis(2-chloroethyl) ether (D <sub>8</sub> ,98%)	2000
2-Chlorophenol (D <sub>4</sub> ,98%)	2000
4-Methylphenol ( <i>p</i> -Cresol) (D <sub>8</sub> ,98%)	2000
Nitrobenzene (D <sub>5</sub> ,99%)	2000
2-Nitrophenol (D <sub>4</sub> ,98%)	2000
2,4-Dichlorophenol (D <sub>3</sub> ,98%)	2000
4-Chloroaniline (D <sub>4</sub> ,98%)	2000
Dimethyl phthalate (dimethyl-D <sub>6</sub> ,98%)	2000
Acenaphthylene (D <sub>8</sub> ,98%)	2000
4-Nitrophenol (D <sub>4</sub> ,98%)	2000
Fluorene (D <sub>10</sub> ,98%)	2000
4,6-Dinitro-2-methylphenol (ring-D <sub>2</sub> ,98%)	2000
Anthracene (D <sub>10</sub> ,98%)	2000
Pyrene (D <sub>10</sub> ,98%)	2000
Benzo[a]pyrene (D <sub>12</sub> ,98%)	2000

ES-5038	<b>CLP OLC Volatiles DMC Stock Solutions</b> 1 Each: ES-5038-1 and ES-5038-2	1 set
ES-5038-1	<b>CLP OLC Volatiles Non-Ketone DMC Stock Solution</b>	1 mL in Methanol-OD
ES-5038-2	<b>CLP OLC Volatiles Ketone DMC Stock Solution</b>	0.5 mL in Methanol-D <sub>4</sub>

Labeled	ES-5038-1	ES-5038-2
Vinyl chloride (D <sub>3</sub> ,98%)	100	–
Chloroethane (D <sub>5</sub> ,98%)	100	–
1,1-Dichloroethene (D <sub>2</sub> ,98%)	100	–
2-Butanone (1,1,1,3,3-D <sub>5</sub> ,98%)	–	200
Chloroform (D <sub>98</sub> %)	100	–
1,2-Dichloroethane (D <sub>4</sub> ,99%)	100	–
Benzene (D <sub>6</sub> ,99.5%)	100	–
1,2-Dichloropropane (D <sub>6</sub> ,98%)	100	–
Toluene (D <sub>8</sub> ,99.6%)	100	–
<i>cis/trans</i> -1,3-Dichloropropene (D <sub>4</sub> ,98%)	100	–
2-Hexanone (1,1,1,3,3-D <sub>5</sub> ,98%)	–	200
Bromoform (D <sub>99.5</sub> %)	100	–
1,1,2,2-Tetrachloroethane (D <sub>2</sub> ,99.6%)	100	–
1,2-Dichlorobenzene (D <sub>4</sub> ,99%)	100	–

ES-5038-10X	<b>CLP Volatiles DMC Stock Solutions (10X concentration)</b> 1 Each: ES-5038-1-10X (10X concentration of ES-5038-1) and ES-5038-2-10X (10X concentration of ES-5038-2)	1 set
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## U.S. EPA CLP DMC Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5286	<b>CLP SOM Volatiles Non-Ketone DMC Stock Solution</b>	1 mL in Methanol-OD
<b>NEW</b> ES-5286-10X	<b>CLP SOM Volatiles Non-Ketone DMC 10X Stock Solution</b>	1 mL in Methanol-OD

Labeled	ES-5286 (µg/mL)	ES-5286-10X (µg/mL)
<b>Vinyl chloride (D<sub>3</sub>,98%)</b>	100	1000
<b>Chloroethane (D<sub>5</sub>,98%)</b>	100	1000
<b>1,1-Dichloroethylene (2,2-D<sub>2</sub>,98%)</b>	100	1000
<b>Chloroform (D,99.8%)</b>	100	1000
<b>1,2-Dichloroethane (D<sub>4</sub>,99%)</b>	100	1000
<b>Benzene (D<sub>6</sub>,99.5%)</b>	100	1000
<b>1,2-Dichloropropane (D<sub>6</sub>,98%)</b>	100	1000
<b>Toluene (D<sub>8</sub>,99.5%)</b>	100	1000
<b>1,3-Dichloropropene (D<sub>4</sub>,98%) <i>cis/trans</i> mix</b>	100	1000
<b>1,1,1,2-Tetrachloroethane (D<sub>2</sub>,99.6%)</b>	100	1000
<b>1,2-Dichlorobenzene (D<sub>4</sub>,99%)</b>	100	1000

<b>NEW</b> ES-5287	<b>CLP SOM Volatiles Ketone DMC Stock Solution</b>	0.5 mL in Methanol-OD
<b>NEW</b> ES-5287-10X	<b>CLP SOM Volatiles Ketone DMC 10X Stock Solution</b>	0.5 mL in Methanol-OD

Labeled	ES-5287	ES-5287-10X
<b>2-Butanone (1,1,1,3,3-D<sub>5</sub>,98%)</b>	500	5000
<b>2-Hexanone (1,1,1,3,3-D<sub>5</sub>,98%)</b>	500	5000

<b>NEW</b> ES-5288	<b>CLP SOM Volatiles 1,4-Dioxane DMC Stock Solution</b>	1 mL in Methanol-OD
<b>NEW</b> ES-5288-10X	<b>CLP SOM Volatiles 1,4-Dioxane 10X DMC Stock Solution</b>	1 mL in Methanol-OD

Labeled	ES-5288	ES-5288-10X
<b>1,4-Dioxane (<i>p</i>-Dioxane) (D<sub>8</sub>,99%)</b>	1250	12,500

## U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2036	<b>Acid Extractables Mixture-3</b>	1 mL in Benzene-D <sub>6</sub>

Labeled		(µg/mL)
(EPA 222A)	<b>4-Chloro-3-methylphenol (2,6-D<sub>2</sub>,98%)</b>	5000
(EPA 224A)	<b>2-Chlorophenol (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 231A)	<b>2,4-Dichlorophenol (3,5,6-D<sub>3</sub>,98%)</b>	5000
(EPA 234A)	<b>2,4-Dimethylphenol (3,5,6-D<sub>3</sub>,98%)</b>	5000
(EPA 260A)	<b>4,6-Dinitro-2-methylphenol (3,5-D<sub>2</sub>,98%)</b>	5000
(EPA 259A)	<b>2,4-Dinitrophenol (3,5,6-D<sub>3</sub>,98%)</b>	5000
(EPA 257A)	<b>2-Nitrophenol (3,4,5,6-D<sub>4</sub>,98%)</b>	5000
(EPA 258A)	<b>4-Nitrophenol (2,3,5,6-D<sub>4</sub>,98%)</b>	5000
(EPA 264A)	<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	5000
(EPA 265A)	<b>Phenol (2,3,4,5,6-D<sub>5</sub>,98%)</b>	5000
(EPA 631A)	<b>2,4,5-Trichlorophenol (3,6-D<sub>2</sub>,98%)</b>	5000
(EPA 221A)	<b>2,4,6-Trichlorophenol (3,5-D<sub>2</sub>,98%)</b>	5000

ES-2022-A	<b>Base Neutrals Mixture-4.1</b>	1 mL in Benzene-D <sub>6</sub>
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Labeled		
(EPA 277B)	<b>Acenaphthylene (D<sub>8</sub>,98%)</b>	5000
(EPA 274B)	<b>Benzo[b]fluoranthene (D<sub>12</sub>,98%)</b>	5000
(EPA 279B)	<b>Benzo[g,h,i]perylene (D<sub>12</sub>,98%)</b>	5000
(EPA 273B)	<b>Benzo[a]pyrene (D<sub>12</sub>,98%)</b>	5000
(EPA 242B)	<b>Bis(2-chloroisopropyl) ether (D<sub>12</sub>,95%)</b>	5000
(EPA 226B)	<b>1,3-Dichlorobenzene (D<sub>4</sub>,98%)</b>	5000
(EPA 235B)	<b>2,4-Dinitrotoluene (3,5,6-D<sub>3</sub>,98%)</b>	5000
(EPA 231B)	<b>Fluoranthene (D<sub>10</sub>,98%)</b>	5000
(EPA 252B)	<b>Hexachloro-1,3-butadiene (<sup>13</sup>C<sub>4</sub>,98%)</b>	5000
(EPA 253B)	<b>Hexachlorocyclopentadiene (random-<sup>13</sup>C<sub>4</sub>,99%)*</b>	5000
(EPA 281B)	<b>Phenanthrene (D<sub>10</sub>,98%)</b>	5000

\*NOTE: Hexachlorocyclopentadiene decomposes upon exposure to light and is usually not observed.

ES-2002	<b>Base Neutrals Mixture-4.3</b>	1 mL in Benzene-D <sub>6</sub>
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Labeled		
(EPA 241B)	<b>4-Bromophenyl phenyl ether (phenyl-D<sub>5</sub>,98%)</b>	5000
(EPA 220B)	<b>2-Chloronaphthalene (D<sub>7</sub>,98%)</b>	5000
(EPA 240B)	<b>4-Chlorophenyl phenyl ether (phenyl-D<sub>5</sub>,98%)</b>	5000
(EPA 268B)	<b>Di-n-butyl phthalate (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 270B)	<b>Diethyl phthalate (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 269B)	<b>Di-n-octyl phthalate (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 209B)	<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	5000
(EPA 212B)	<b>Hexachloroethane (1-<sup>13</sup>C,99%)</b>	5000
(EPA 254B)	<b>Isophorone (3-methyl-D<sub>3</sub>;2,4,4,6,6-D<sub>5</sub>,98%)</b>	5000
(EPA 208B)	<b>1,2,4-Trichlorobenzene (3,5,6-D<sub>3</sub>,98%)</b>	5000

## U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2041-A	<b>Base Neutrals Dilution Mixture-5</b>	10 mL in Benzene-D <sub>6</sub>

Labeled		(µg/mL)
(EPA 602B)	<b>2-Aminonaphthalene (ring-D<sub>7</sub>,98%)</b>	500
(EPA 205B)	<b>Benzidine (ring-D<sub>8</sub>,98%)</b>	500
(EPA 511B)	<b>Di-<i>n</i>-butylamine (D<sub>18</sub>,98%)</b>	500
(EPA 228B)	<b>3,3'-Dichlorobenzidine (ring-D<sub>6</sub>,98%)</b>	500
(EPA 607B)	<b>Diphenylamine (D<sub>10</sub>,98%)</b>	500
(EPA 237B)	<b>1,2-Diphenylhydrazine (D<sub>10</sub>,98%)</b>	500
(EPA 603B)	<b>2-Methylpyridine (D<sub>7</sub>,98%)</b>	500
(EPA 262B)	<b><i>N</i>-Nitrosodiphenylamine (2,2',4,4',6,6'-D<sub>6</sub>,98%)</b>	500

ES-2026	<b>Base Neutrals Dilution Mixture-5.2</b>	1 mL in Benzene-D <sub>6</sub>
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Labeled		
(EPA 628B)	<b>Carbazole-NH (D<sub>8</sub>,98%)</b>	5000
(EPA 261B)	<b><i>N</i>-Nitrosodimethylamine (dimethyl-D<sub>6</sub>,98%)</b>	5000
(EPA 263B)	<b><i>N</i>-Nitrosodi-<i>n</i>-propylamine (dipropyl-D<sub>14</sub>,98%)</b>	5000

ES-2025-A	<b>Base Neutrals Dilution Mixture-5.1</b> <b>Contains One Each of ES-2041-A and ES-2026</b>	1 Set
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ES-2003	<b>Base Neutrals Mixture-6.2</b>	2 x 1 mL in 50% Benzene-D <sub>6</sub> and 50% Methylene chloride-D <sub>2</sub>
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Labeled		
(EPA 201B)	<b>Acenaphthene (D<sub>10</sub>,99%)</b>	2500
(EPA 278B)	<b>Anthracene (D<sub>10</sub>,98%)</b>	2500
(EPA 275B)	<b>Benzo[<i>k</i>]fluoranthene (D<sub>12</sub>,98%)</b>	2500
(EPA 218B)	<b>Bis(2-chloroethyl) ether (D<sub>8</sub>,98%)</b>	2500
(EPA 276B)	<b>Chrysene (D<sub>12</sub>,98%)</b>	2500
(EPA 280B)	<b>Fluorene (D<sub>10</sub>,98%)</b>	2500
(EPA 255B)	<b>Naphthalene (D<sub>8</sub>,99%)</b>	2500
(EPA 284B)	<b>Pyrene (D<sub>10</sub>,98%)</b>	2500

ES-2004	<b>Base Neutrals Mixture-6.3</b>	1 mL in Benzene-D <sub>6</sub>
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Labeled		
(EPA 272B)	<b>Benz[<i>a</i>]anthracene (D<sub>12</sub>,98%)</b>	5000
(EPA 267B)	<b>Butyl benzyl phthalate (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 243B)	<b>Bis(2-chloroethoxy) methane (D<sub>8</sub>,98%)</b>	5000
(EPA 266B)	<b>Bis(2-ethylhexyl) phthalate (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 282B)	<b>Dibenz[<i>a,h</i>]anthracene (D<sub>14</sub>,98%)</b>	5000
(EPA 225B)	<b>1,2-Dichlorobenzene (D<sub>4</sub>,99%)</b>	5000
(EPA 227B)	<b>1,4-Dichlorobenzene (D<sub>4</sub>,98%)</b>	5000
(EPA 271B)	<b>Dimethyl phthalate (3,4,5,6-D<sub>4</sub>,99%)</b>	5000
(EPA 236B)	<b>2,6-Dinitrotoluene (methyl-D<sub>3</sub>,98%)</b>	5000
(EPA 256B)	<b>Nitrobenzene (D<sub>5</sub>,99%)</b>	5000
(EPA 629B)	<b>1,2,3-Trichlorobenzene (4,5,6-D<sub>3</sub>,98%)</b>	5000

## U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2032	<b>Purgeables/Volatiles Mixture-E.1</b>	1 mL in Methanol-D <sub>4</sub>

Labeled		(µg/mL)
(EPA 206V)	<b>Carbon tetrachloride (<sup>13</sup>C,99%)</b>	50
(EPA 207V)	<b>Chlorobenzene (D<sub>5</sub>,99%)</b>	50
(EPA 223V)	<b>Chloroform (<sup>13</sup>C,99%)</b>	50
(EPA 213V)	<b>1,1-Dichloroethane (2,2,2-D<sub>3</sub>,98%)</b>	50
(EPA 229V)	<b>1,1-Dichloroethylene (2,2-D<sub>2</sub>,98%)</b>	50
(EPA 244V)	<b>Methylene chloride (D<sub>2</sub>,99.9%)</b>	50
(EPA 232V)	<b>1,2-Dichloropropane (D<sub>6</sub>,98%)</b>	50
(EPA 214V)	<b>1,1,2-Trichloroethane (<sup>13</sup>C<sub>2</sub>,99%)</b>	50

ES-2006	<b>Purgeables/Volatiles Mixture-F</b>	1 mL in Methanol-D <sub>4</sub>
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Labeled		
(EPA 204V)	<b>Benzene (D<sub>6</sub>,99.5%)</b>	50
(EPA 247V)	<b>Bromoform (<sup>13</sup>C,99%)</b>	50
(EPA 210V)	<b>1,2-Dichloroethane (D<sub>4</sub>,99%)</b>	50
(EPA 238V)	<b>Ethylbenzene (D<sub>10</sub>,98%)</b>	50
(EPA 215V)	<b>1,1,2,2-Tetrachloroethane (D<sub>2</sub>,99.6%)</b>	50
(EPA 286V)	<b>Toluene (D<sub>8</sub>,99.5%)</b>	50
(EPA 211V)	<b>1,1,1-Trichloroethane (2,2,2-D<sub>3</sub>,98%)</b>	50

<b>NEW</b> ES-2007-A	<b>Purgeables/Volatiles Mixture-G</b>	1 mL in Methanol-D <sub>4</sub>
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Labeled		
(EPA 616V)	<b>Acetone (D<sub>6</sub>,99.9%)</b>	250
(EPA 203V)	<b>Acrylonitrile (D<sub>3</sub>,99%)</b>	250
(EPA 246V)	<b>Bromomethane (D<sub>3</sub>,99%)</b>	250
(EPA 614V)	<b>2-Butanone (4,4,4-D<sub>3</sub>,98%)</b>	250
(EPA 216V)	<b>Chloroethane (D<sub>5</sub>,98%)</b>	250
(EPA 245V)	<b>Chloromethane (D<sub>3</sub>,99%)</b>	250
(EPA 615V)	<b>Diethyl ether (D<sub>10</sub>,99%)</b>	250
(EPA 288V)	<b>Vinyl chloride (D<sub>3</sub>,98%)</b>	250

ES-2008	<b>Purgeables/Volatiles Mixture-H</b>	1 mL in Methanol-D <sub>4</sub>
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Labeled		
(EPA 248V)	<b>Bromodichloromethane (<sup>13</sup>C,99%)</b>	50
(EPA 251V)	<b>Chlorodibromomethane (<sup>13</sup>C,99%)</b>	50
(EPA 30V)	<b>1,2-Dichloroethylene (1,2-D<sub>2</sub>,98%)</b>	50
(EPA 33V)	<b>1,3-Dichloropropene (D<sub>4</sub>,98%)</b>	50
(EPA 627V)	<b>1,4-Dioxane (D<sub>8</sub>,99%)</b>	50
(EPA 285V)	<b>Tetrachloroethylene (<sup>13</sup>C<sub>2</sub>,99%)</b>	50
(EPA 287V)	<b>1,1,2-Trichloroethylene (<sup>13</sup>C<sub>2</sub>,99%)</b>	50

## U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2033	<b>Semi-Volatiles Mixture-1/Appendix C</b>	1 mL in Benzene-D <sub>6</sub>

Labeled	(µg/mL)
(EPA 617B) <b><i>n</i>-Decane (D<sub>22</sub>,98%)</b>	5000
(EPA 605B) <b>Dibenzofuran (D<sub>8</sub>,98%)</b>	5000
(EPA 604B) <b>Dibenzothiophene (D<sub>8</sub>,98%)</b>	5000
(EPA 612B) <b>Biphenyl (D<sub>10</sub>,98%)</b>	5000
(EPA 608B) <b>Diphenyl ether (phenyl-D<sub>10</sub>,98%)</b>	5000
(EPA 606B) <b><i>n</i>-Dodecane (D<sub>26</sub>,98%)</b>	5000
(EPA 621B) <b><i>n</i>-Eicosane (D<sub>42</sub>,98%)</b>	5000
(EPA 619B) <b><i>n</i>-Hexadecane (D<sub>34</sub>,98%)</b>	5000
(EPA 613B) <b>2-(4-Methylphenyl) propane (D<sub>14</sub>,98%)</b>	5000
(EPA 610B) <b>Styrene (2,3,4,5,6-D<sub>5</sub>,98%)</b>	5000
(EPA 609B) <b>α-Terpineol (D<sub>3</sub>,98%)</b>	5000
(EPA 623B) <b><i>n</i>-Tetracosane (D<sub>50</sub>,98%)</b>	5000
(EPA 626B) <b><i>n</i>-Triacontane (D<sub>62</sub>,98%)</b>	5000

ES-2042	<b>EPA 1624/1625 Standards Kit</b>	1 Set
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Contains 1 ampoule each of the following

ES-2036	<b>Acid Extractables Mixture-3</b>
ES-2022-A	<b>Base Neutrals Mixture-4.1</b>
ES-2002	<b>Base Neutrals Mixture-4.3</b>
ES-2025-A	<b>Base Neutrals Mixture-5.1</b> (ES-2041-A and ES-2026)
ES-2003	<b>Base Neutrals Mixture-6.2</b>
ES-2004	<b>Base Neutrals Mixture-6.3</b>
ES-2032	<b>Purgeables/Volatiles Mixture-E.1</b>
ES-2006	<b>Purgeables/Volatiles Mixture-F</b>
<b>NEW</b> ES-2007-A	<b>Purgeables/Volatiles Mixture-G</b>
ES-2008	<b>Purgeables/Volatiles Mixture-H</b>
ES-2033	<b>Semi-Volatiles Mixture-1/Appendix C</b>

## Notes



## Priority Pollutant, Endocrine Disruptor and Chemical Contaminant Standards

Major improvements in air and water quality resulted from focus on the prevention and remediation of Priority Pollutants. Cleaning up our environment and the products that impact our dietary intake will ultimately lead to a cleaner, healthier life for all of us, and following generations. Emerging contaminants, particularly those analyzed by LC/MS, are among the most active areas of CIL's new product development efforts.



## Pharmaceutical and Personal Care Product (PPCP) Standards

Concern about environmental and human exposure to Pharmaceuticals and Personal Care Products (PPCPs) has grown significantly. This classification encompasses a broad range of chemicals, ranging from antibiotics to hormones to pesticides. One common theme among these groups is the need for high-quality isotopically labeled standards to strengthen the analysis of PPCPs in difficult matrices such as sewage sludge and wastewater. CIL, with guidance from leading laboratories around the world, has been working diligently to produce representative standards for the analysis of PPCPs.

## Food and Drinking Water Analysis Standards

Increased attention to possible contamination of food and water has caused analysts to broaden the scope of trace food and water testing by Isotope Dilution Mass Spectrometry. Of particular interest are veterinary antibiotics used to improve the health of feed animals, ranging from shrimp to poultry to cattle. Human antibiotics, pharmaceuticals, and hormones that are not removed during wastewater treatment are also of interest, as is the routine analysis of POPs, pesticides, and other industrial contaminants that have entered the food and water supply.

## Phthalate and Phthalate Metabolite Standards

Phthalates continue to be a growing environmental concern, especially as more is learned about the effect of continued exposure on the environment and the human body. Phthalate diesters are ubiquitous in the laboratory environment, so many analysts are now examining phthalate monoesters and metabolites of phthalate monoesters to reduce background interferences. Adipate esters are also anticipated to be of interest to exposure analysts; please inquire if you are interested in additional adipate standards.

## Perfluorinated Compound (PFC) Standards

From stain-resistant textiles to non-stick surface coatings and much more, Poly- and Perfluorinated compounds (PFCs) are nearly ubiquitous chemicals in the environment. CIL offers several new labeled and unlabeled Perfluorinated Carboxylic Acid standards (PFCAs) in this catalog. CIL will be continuously adding to our offerings, so we recommend visiting our website ([www.isotope.com](http://www.isotope.com)) for product updates in this rapidly growing field.

## Nitrosamine Standards

Nitrosamine compounds are contaminants that may be found in food and tobacco products, and some have been classified as carcinogenic. While efforts have been made to reduce the levels of nitrosamines in commercial products, the need to monitor trace levels of this pollutant has prompted CIL to expand our offerings of labeled and unlabeled Nitrosamine standards.

## Endocrine Disrupting Compounds and Xenoestrogen Standards

CIL is committed to supporting the analysis of Endocrine Disrupting Compounds (EDCs) using Isotope Dilution Mass Spectrometry. If you require an EDC not listed, please contact us to discuss preparation.

## Halogenated and Substituted Benzene and Phenol Standards

Many industrial and consumer products are composed of chemicals that contain halogenated or substituted benzene or phenol functional groups. Resistant to decomposition and metabolism, these chemicals may persist even after the parent molecule has undergone partial decomposition, or they may exist as a product or an industrial byproduct. The increased use of brominated compounds is expected to lead to more brominated benzenes and phenols in the environment, and the continued presence of chlorinated compounds ensures that chlorinated benzenes and phenols will be found in the environment for years to come.

Personal Care Product Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> DLM-183-1.2	<b>Benzophenone (D<sub>10</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> COC <sub>6</sub> D <sub>5</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8303-1.2	<b>Benzophenone (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> COC <sub>6</sub> H <sub>5</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8285-1.2	<b><i>n</i>-Butyl paraben (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	HO*C <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8287-1.2	<b><i>n</i>-Butyl paraben (unlabeled)</b>	HOC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> DLM-4762-1.2	<b><i>N,N</i>-Diethyl-<i>m</i>-toluamide (DEET) (dimethyl-D<sub>6</sub>,98%)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CD <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Methylene chloride	1.2 mL
<b>NEW</b> DLM-4762-D-1.2	<b><i>N,N</i>-Diethyl-<i>m</i>-toluamide (DEET) (dimethyl-D<sub>6</sub>,98%)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CD <sub>3</sub> ) <sub>2</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
<b>NEW</b> ULM-7975-1.2	<b><i>N,N</i>-Diethyl-<i>m</i>-toluamide (DEET) (unlabeled)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Methylene chloride	1.2 mL
<b>NEW</b> ULM-7975-D-1.2	<b><i>N,N</i>-Diethyl-<i>m</i>-toluamide (DEET) (unlabeled)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
<b>NEW</b> CLM-8008-1.2	<b>Hexachlorophene (<sup>13</sup>C<sub>13</sub>,99%)</b>	*CH <sub>2</sub> [*C <sub>6</sub> H(Cl) <sub>3</sub> OH] <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8009-1.2	<b>Hexachlorophene (unlabeled)</b>	CH <sub>2</sub> [C <sub>6</sub> H(Cl) <sub>3</sub> OH] <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b> CLM-4745-1.2	<b>4-Hydroxybenzoic acid (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> O <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8251-1.2	<b>4-Hydroxybenzoic acid (unlabeled)</b>	C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> CLM-8249-1.2	<b>Methyl paraben (Methyl 4-hydroxybenzoate) (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>2</sub> H <sub>3</sub> O <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8250-1.2	<b>Methyl paraben (Methyl 4-hydroxybenzoate) (unlabeled)</b>	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> CLM-7885-1.2	<b>Methyl Triclosan (2,4,4-Trichloro-2-methoxydiphenyl ether) (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> CH <sub>3</sub> Cl <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7884-1.2	<b>Methyl Triclosan (2,4,4-Trichloro-2-methoxydiphenyl ether) (unlabeled)</b>	C <sub>12</sub> CH <sub>3</sub> Cl <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8525-1.2	<b>Oxybenzone (phenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	HOC <sub>6</sub> H <sub>3</sub> (OCH <sub>3</sub> )CO*C <sub>6</sub> H <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8531-1.2	<b>Oxybenzone (unlabeled)</b>	HOC <sub>6</sub> H <sub>3</sub> (OCH <sub>3</sub> )COC <sub>6</sub> H <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-7286-1.2	<b>3,4,4'-Trichlorocarbanilide (Triclocarban) (4'-chlorophenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>7</sub> H <sub>3</sub> Cl <sub>3</sub> N <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7968-1.2	<b>3,4,4'-Trichlorocarbanilide (Triclocarban) (unlabeled)</b>	C <sub>13</sub> H <sub>9</sub> Cl <sub>3</sub> N <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
CLM-6779-1.2	<b>2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>7</sub> Cl <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6935-1.2	<b>2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) (unlabeled)</b>	C <sub>12</sub> H <sub>7</sub> Cl <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane	1.2 mL

Please also see the sections on Plasticizers, Pesticides, and PAHs for other products that can be used in PPCP analysis.

## Sex and Steroidal Hormone Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-804-0.1	<b>Cholesterol (3,4-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>25</sub> H <sub>46</sub> O	Neat	100 mg
NEW	DLM-3057-0.1	<b>Cholesterol (25,26,26,26,27,27-D<sub>7</sub>,98%)</b>	C <sub>27</sub> H <sub>39</sub> D <sub>7</sub> O	Neat	100 mg
NEW	DLM-2607-0.1	<b>Cholesterol (2,2,3,4,4,6-D<sub>6</sub>,97-98%)</b>	C <sub>27</sub> H <sub>40</sub> D <sub>6</sub> O	Neat	100 mg
NEW	DLM-2218-0.1MG	<b>Cortisol (9,11,12,12-D<sub>4</sub>,98%)</b>	C <sub>21</sub> D <sub>4</sub> H <sub>26</sub> O <sub>5</sub>	Neat	0.1 mg
NEW	DLM-2218-A-1.2	<b>Cortisol (9,11,12,12-D<sub>4</sub>,98%)</b>	C <sub>21</sub> D <sub>4</sub> H <sub>26</sub> O <sub>5</sub>	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7823-A-1.2	<b>Cortisol (unlabeled)</b>	C <sub>21</sub> H <sub>30</sub> O <sub>5</sub>	100 µg/mL in Methylene chloride	1.2 mL
NEW	DLM-8049-0.005	<b>Dehydroepiandrosterone (DHEA) (2,2,3,4,4,6-D<sub>6</sub>,99%) (CP: 97%)</b>	C <sub>19</sub> H <sub>22</sub> D <sub>6</sub> O <sub>2</sub>	Neat	5 mg
NEW	DLM-170-1.2	<b>Diethylstilbestrol (cis/trans mix) (ring-3,3',5,5'-diethyl-1,1,1',1'-D<sub>8</sub>,98%)</b>	HOC <sub>6</sub> D <sub>2</sub> H <sub>2</sub> (CH <sub>3</sub> CD <sub>2</sub> )C=C(CD <sub>2</sub> CH <sub>3</sub> )C <sub>6</sub> H <sub>2</sub> D <sub>2</sub> OH	100 µg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
NEW	DLM-170-D-1.2	<b>Diethylstilbestrol (cis/trans mix) (ring-3,3',5,5'-diethyl-1,1,1',1'-D<sub>8</sub>,98%)</b>	HOC <sub>6</sub> D <sub>2</sub> H <sub>2</sub> (CH <sub>3</sub> CD <sub>2</sub> )C=C(CD <sub>2</sub> CH <sub>3</sub> )C <sub>6</sub> H <sub>2</sub> D <sub>2</sub> OH	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
NEW	ULM-7921-1.2	<b>Diethylstilbestrol (cis/trans mix) (unlabeled)</b>	HOC <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> CH <sub>2</sub> )C=C(CH <sub>2</sub> CH <sub>3</sub> )C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7921-D-1.2	<b>Diethylstilbestrol (cis/trans mix) (unlabeled)</b>	HOC <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> CH <sub>2</sub> )C=C(CH <sub>2</sub> CH <sub>3</sub> )C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
NEW	CLM-7936-0.1MG	<b>DL-Estradiol (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>12</sub> *C <sub>6</sub> H <sub>24</sub> O <sub>2</sub>	Neat	0.1 mg
NEW	CLM-7936-1.2	<b>DL-Estradiol (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>12</sub> *C <sub>6</sub> H <sub>24</sub> O <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
	CLM-803-1.2	<b>Estradiol (3,4-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>16</sub> H <sub>24</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7449-1.2	<b>Estradiol (unlabeled)</b>	C <sub>18</sub> H <sub>24</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-8583	<b>Estriol (2,4,16,17-D<sub>4</sub>,98%)</b>	C <sub>18</sub> D <sub>4</sub> H <sub>20</sub> O <sub>3</sub>		Inquire
NEW	ULM-8218	<b>Estriol (unlabeled)</b>	C <sub>18</sub> H <sub>24</sub> O <sub>3</sub>		Inquire
NEW	CLM-7935-0.1MG	<b>DL-Estrone (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>12</sub> *C <sub>6</sub> H <sub>22</sub> O <sub>2</sub>	Neat	0.1 mg
NEW	CLM-7935-1.2	<b>DL-Estrone (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>12</sub> *C <sub>6</sub> H <sub>22</sub> O <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
	CLM-673-1.2	<b>Estrone (3,4-<sup>13</sup>C<sub>2</sub>,90%)</b>	*C <sub>2</sub> C <sub>16</sub> H <sub>22</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7212-1.2	<b>Estrone (unlabeled)</b>	C <sub>18</sub> H <sub>22</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3375-1.2	<b>Ethynylestradiol (20,21-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>18</sub> H <sub>24</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7211-1.2	<b>Ethynylestradiol (unlabeled)</b>	C <sub>20</sub> H <sub>24</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8012-0.1MG	<b>2-Hydroxyestradiol (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
NEW	ULM-8135-0.1MG	<b>2-Hydroxyestradiol (unlabeled)</b>	C <sub>18</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
NEW	CLM-8011-0.1MG	<b>2-Hydroxyestrone (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>22</sub> O <sub>3</sub>	Neat	0.1 mg
NEW	ULM-8134-0.1MG	<b>2-Hydroxyestrone (unlabeled)</b>	C <sub>18</sub> H <sub>22</sub> O <sub>3</sub>	Neat	0.1mg
NEW	CLM-8016-0.1MG	<b>2-Hydroxyestrone-3-methyl ether (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>13</sub> *C <sub>6</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg

## Sex and Steroidal Hormone Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> ULM-8133-0.1MG	<b>2-Hydroxyestrone-3-methyl ether (unlabeled)</b>	C <sub>19</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> CLM-8013-0.1MG	<b>4-Hydroxyestrone (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>22</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> ULM-8261-0.1MG	<b>4-Hydroxyestrone (unlabeled)</b>	C <sub>18</sub> H <sub>22</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> CLM-8015-0.1MG	<b>2-Methoxyestradiol (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>13</sub> H <sub>26</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> ULM-8137-0.1MG	<b>2-Methoxyestradiol (unlabeled)</b>	C <sub>19</sub> H <sub>26</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> CLM-8014-0.1MG	<b>2-Methoxyestrone (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>13</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> ULM-8263-0.1MG	<b>2-Methoxyestrone (unlabeled)</b>	C <sub>19</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> CLM-8017-0.1MG	<b>4-Methoxyestrone (13,14,15,16,17,18-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>13</sub> *C <sub>6</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> ULM-8262-0.1MG	<b>4-Methoxyestrone (unlabeled)</b>	C <sub>19</sub> H <sub>24</sub> O <sub>3</sub>	Neat	0.1 mg
<b>NEW</b> DLM-3979-5	<b>19-Nortestosterone (16,16,17-D<sub>3</sub>,98%)</b>	C <sub>18</sub> H <sub>23</sub> D <sub>3</sub> O <sub>2</sub>	Neat	5 mg
<b>NEW</b> DLM-6909-1.2	<b>Progesterone (2,2,6,6,17,21,21-D<sub>8</sub>,96%)</b>	C <sub>21</sub> H <sub>22</sub> D <sub>8</sub> O <sub>2</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
<b>NEW</b> ULM-8219-1.2	<b>Progesterone (unlabeled)</b>	C <sub>21</sub> H <sub>30</sub> O <sub>2</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
<b>NEW</b> DLM-8085-1.2	<b>Testosterone (2,2,4,6,6-D<sub>5</sub>,98%)</b>	C <sub>19</sub> D <sub>5</sub> H <sub>23</sub> O <sub>2</sub>	100 µg/mL in Methylene chloride	1.2 mL
<b>NEW</b> DLM-8085-D-1.2	<b>Testosterone (2,2,4,6,6,D<sub>5</sub>,98%)</b>	C <sub>19</sub> D <sub>5</sub> H <sub>23</sub> O <sub>2</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
<b>NEW</b> DLM-683-1.2	<b>Testosterone (1,2-D<sub>2</sub>,98%)</b>	C <sub>19</sub> D <sub>2</sub> H <sub>26</sub> O <sub>2</sub>	100 µg/mL in Methylene chloride	1.2 mL
<b>NEW</b> ULM-8081-1.2	<b>Testosterone (unlabeled)</b>	C <sub>19</sub> H <sub>28</sub> O <sub>2</sub>	100 µg/mL in Methylene chloride	1.2 mL
<b>NEW</b> ULM-8081-D-1.2	<b>Testosterone (unlabeled)</b>	C <sub>19</sub> H <sub>28</sub> O <sub>2</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
<b>NEW</b> CLM-6725-0.1MG	<b>L-Thyroxine (tyrosine ring-<sup>13</sup>C<sub>6</sub>,99%) (CP: 90%)</b>	*C <sub>6</sub> C <sub>9</sub> H <sub>11</sub> I <sub>4</sub> NO <sub>4</sub>	Neat	0.1 mg

Prescription and Non-Prescription Drug Standards

Catalog #	Compound	Formula	Concentration	Amount
NEW CNLM-3726-1.2	<b>Acetaminophen (acetyl-<sup>13</sup>C<sub>2</sub>,99%;<sup>15</sup>N,98%)</b>	*CH <sub>3</sub> *CO*NHC <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Acetonitrile	1.2 mL
NEW ULM-7629-1.2	<b>Acetaminophen (unlabeled)</b>	CH <sub>3</sub> CONHC <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Acetonitrile	1.2 mL
NEW DLM-3008-1.2	<b>Amitriptyline-HCl (N,N-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>20</sub> H <sub>17</sub> D <sub>6</sub> N·HCl	100 µg/mL in Methanol	1.2 mL
NEW ULM-8350-1.2	<b>Amitriptyline-HCl (unlabeled)</b>	C <sub>20</sub> H <sub>23</sub> N·HCl	100 µg/mL in Methanol	1.2 mL
NEW CLM-514-1.2	<b>Caffeine (trimethyl-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>5</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
NEW ULM-7653-1.2	<b>Caffeine (unlabeled)</b>	C <sub>8</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
DLM-2806-1.2	<b>Carbamazepine (D<sub>10</sub>,98%)</b>	C <sub>15</sub> D <sub>10</sub> H <sub>2</sub> N <sub>2</sub> O	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-6581-1.2	<b>Carbamazepine (unlabeled) (CP: 97%)</b>	C <sub>15</sub> H <sub>12</sub> N <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
NEW DLM-1287-1.2	<b>Clonidine (4,4,5,5-imidazoline-D<sub>4</sub>,98%)</b>	C <sub>9</sub> H <sub>5</sub> D <sub>4</sub> N <sub>3</sub> Cl <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
NEW ULM-8349-1.2	<b>Clonidine (unlabeled)</b>	C <sub>9</sub> H <sub>9</sub> N <sub>3</sub> Cl <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
NEW C-041	<b>Codeine (D<sub>6</sub>,98%)</b>	C <sub>18</sub> H <sub>15</sub> D <sub>6</sub> NO <sub>3</sub>	1.0 mg/mL in Methanol	1.0 mL
NEW C-006	<b>Codeine (unlabeled)</b>	C <sub>18</sub> H <sub>21</sub> NO <sub>3</sub>	1.0 mg/ mL in Methanol	1.0 mL
NEW C-035	<b>(+/-)-Cotinine (D<sub>3</sub>,98%)</b>	C <sub>10</sub> H <sub>9</sub> D <sub>3</sub> N <sub>2</sub> O	1.0 mg/ mL in Methanol	1.0 mL
NEW C-016	<b>(-)-Cotinine (unlabeled)</b>	C <sub>10</sub> H <sub>12</sub> N <sub>2</sub> O	1.0 mg/ mL in Methanol	1.0 mL
NEW D-902	<b>Diazepam (D<sub>5</sub>,98%)</b>	C <sub>16</sub> H <sub>7</sub> D <sub>5</sub> N <sub>2</sub> O·HCl	100 µg/ mL in Methanol	1.0 mL
NEW D-907	<b>Diazepam (unlabeled)</b>	C <sub>16</sub> H <sub>12</sub> N <sub>2</sub> O·HCl	1.0 mg/ mL in Methanol	1.0 mL
NEW CNLM-411-1.2	<b>5,5-Diphenylhydantoin (2-<sup>13</sup>C,99%;1,3-<sup>15</sup>N<sub>2</sub>,98%)</b>	*CC <sub>14</sub> H <sub>12</sub> *N <sub>2</sub> O <sub>2</sub>	100 µg/ mL in Methanol	1.2 mL
NEW ULM-8533-1.2	<b>5,5-Diphenylhydantoin (unlabeled)</b>	C <sub>15</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	100 µg/ mL in Methanol	1.2 mL
NEW F-919	<b>Fluoxetine oxalate (D<sub>6</sub>,98%)</b>	C <sub>17</sub> H <sub>12</sub> D <sub>6</sub> F <sub>3</sub> NO·C <sub>2</sub> H <sub>2</sub> O <sub>4</sub>	100 µg/ mL in Methanol	1.0 mL
NEW F-918	<b>Fluoxetine-HCl (unlabeled)</b>	C <sub>17</sub> H <sub>18</sub> F <sub>3</sub> NO·HCl	1.0 mg/mL in Methanol	1.0 mL
NEW DLM-8221-1.2	<b>Gemfibrozil (2,2-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>15</sub> D <sub>6</sub> H <sub>16</sub> O <sub>3</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
NEW ULM-8225-1.2	<b>Gemfibrozil (unlabeled)</b>	C <sub>15</sub> H <sub>22</sub> O <sub>3</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
CLM-6943-1.2	<b>Ibuprofen (propionic-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
ULM-7275-1.2	<b>Ibuprofen (unlabeled)</b>	C <sub>13</sub> H <sub>18</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW DLM-3035-1.2	<b>Imipramine-HCl (2,4,6,8-D<sub>4</sub>,98%)</b>	C <sub>19</sub> H <sub>20</sub> D <sub>4</sub> N <sub>2</sub> ·HCl	100 µg/mL in Methanol	1.2 mL
NEW I-902	<b>Imipramine (unlabeled)</b>	C <sub>19</sub> H <sub>24</sub> N <sub>2</sub>	1.0 mg/mL in Methanol	1.0 mL
NEW L-902	<b>Lorazepam (D<sub>4</sub>,98%)</b>	C <sub>15</sub> H <sub>6</sub> D <sub>4</sub> N <sub>2</sub> O <sub>2</sub> Cl <sub>2</sub>	100 µg/mL in Acetonitrile	1.0 mL
NEW L-901	<b>Lorazepam (unlabeled)</b>	C <sub>15</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub> Cl <sub>2</sub>	1.0 mg/mL in Acetonitrile	1.0 mL

### Prescription and Non-Prescription Drug Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> CDLM-7665-1.2	<b>Naproxen (methyl-<sup>13</sup>C,99% methyl-D<sub>3</sub>,98%)</b>	*C <sub>13</sub> D <sub>3</sub> H <sub>11</sub> O <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7709-1.2	<b>Naproxen (unlabeled)</b>	C <sub>14</sub> H <sub>14</sub> O <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> N-922	<b>Norfluoxetine oxalate (D<sub>6</sub>,98%)</b>	C <sub>16</sub> H <sub>10</sub> D <sub>6</sub> F <sub>3</sub> NO·C <sub>2</sub> H <sub>2</sub> O <sub>4</sub>	100 µg/mL in Methanol	1.0 mL
<b>NEW</b> N-923	<b>Norfluoxetine oxalate (unlabeled)</b>	C <sub>16</sub> H <sub>16</sub> F <sub>3</sub> NO·C <sub>2</sub> H <sub>2</sub> O <sub>4</sub>	1.0 mg/mL in Methanol	1.0 mL
<b>NEW</b> DLM-3039-1MG	<b>Phenylbutazone (unlabeled)</b>	C <sub>19</sub> D <sub>10</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>	Neat	1 mg
<b>NEW</b> ULM-7378	<b>Phenylbutazone (unlabeled)</b>	C <sub>19</sub> H <sub>20</sub> N <sub>2</sub> O <sub>2</sub>		Inquire
<b>NEW</b> CLM-7892	<b>Resorcinol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>		Inquire
<b>NEW</b> CLM-8370-1.2	<b>Thiabendazole (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>4</sub> *C <sub>6</sub> H <sub>7</sub> N <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8371-1.2	<b>Thiabendazole (unlabeled)</b>	C <sub>10</sub> H <sub>7</sub> N <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> DLM-6861-1.2	<b>Warfarin (phenyl-D<sub>5</sub>,98%)</b>	C <sub>19</sub> H <sub>11</sub> D <sub>5</sub> O <sub>4</sub>	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
<b>NEW</b> ULM-7242-1.2	<b>Warfarin (unlabeled)</b>	C <sub>19</sub> H <sub>16</sub> O <sub>4</sub>	100 µg/mL in Acetonitrile	1.2 mL

### Veterinary and Human Antibiotic Standards

<b>NEW</b> CLM-7407-1MG	<b>Amoxicillin-3H<sub>2</sub>O (phenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>10</sub> H <sub>19</sub> N <sub>3</sub> O <sub>5</sub> S·3H <sub>2</sub> O	Neat	1 mg	
<b>NEW</b> DLM-119-1.2	<b>(+/-)-Chloramphenicol (ring-D<sub>4</sub>, benzyl-D<sub>11</sub>,98%)</b>	NO <sub>2</sub> (C <sub>6</sub> D <sub>4</sub> )CD(OH)CH(NHCOCHCl <sub>2</sub> )CH <sub>2</sub> OH	100 µg/mL in Acetonitrile	1.2 mL	
<b>NEW</b> ULM-6687-1.2	<b>(+/-)-Chloramphenicol (unlabeled)</b>	NO <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> )CH(OH)CH(NHCOCHCl <sub>2</sub> )CH <sub>2</sub> OH	100 µg/mL in Acetonitrile	1.2 mL	
<b>NEW</b> CNLM-7539-1.2	<b>Ciprofloxacin-HCl (2,3,carboxyl-<sup>13</sup>C<sub>3</sub>,99%; quinoline-<sup>15</sup>N,98%)</b>	*C <sub>3</sub> C <sub>14</sub> H <sub>18</sub> F*NN <sub>2</sub> O <sub>3</sub> ·HCl	100 µg/mL in Methanol	1.2 mL	
<b>NEW</b> ULM-7710-1.2	<b>Ciprofloxacin-HCl (unlabeled)</b>	C <sub>17</sub> H <sub>18</sub> FN <sub>3</sub> O <sub>3</sub> ·HCl	100 µg/mL in Methanol	1.2 mL	
<b>NEW</b> CLM-3672-1.2	<b>Erythromycin (90-95% Erythromycin A) (N,N-dimethyl-<sup>13</sup>C<sub>2</sub>,~90%)</b>	*C <sub>2</sub> C <sub>35</sub> H <sub>67</sub> NO <sub>13</sub>	100 µg/mL in Acetonitrile	1.2 mL	
<b>NEW</b> ULM-4322-1.2	<b>Erythromycin (unlabeled)</b>	C <sub>37</sub> H <sub>67</sub> NO <sub>13</sub>	100 µg/mL in Acetonitrile	1.2 mL	
	CLM-3045-1.2	<b>Sulfamethazine (phenyl-<sup>13</sup>C<sub>6</sub>,90%)</b>	H <sub>2</sub> N*C <sub>6</sub> H <sub>4</sub> SO <sub>2</sub> NH(C <sub>6</sub> N <sub>2</sub> H <sub>7</sub> )	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7220-1.2	<b>Sulfamethazine (unlabeled)</b>	H <sub>2</sub> NC <sub>6</sub> H <sub>4</sub> SO <sub>2</sub> NH(C <sub>6</sub> N <sub>2</sub> H <sub>7</sub> )	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-6944-1.2	<b>Sulfamethoxazole (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>4</sub> *C <sub>6</sub> H <sub>11</sub> N <sub>3</sub> O <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL	
<b>NEW</b> ULM-7527-1.2	<b>Sulfamethoxazole (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> N <sub>3</sub> O <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL	
<b>NEW</b> CLM-7988-A-1.2	<b>Trimethoprim (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>11</sub> H <sub>18</sub> N <sub>4</sub> O <sub>3</sub>	50 µg/mL in Methanol	1.2 mL	
<b>NEW</b> ULM-7989-A-1.2	<b>Trimethoprim (unlabeled)</b>	C <sub>14</sub> H <sub>18</sub> N <sub>4</sub> O <sub>3</sub>	50 µg/mL in Methanol	1.2 mL	

## Food and Drinking Water Analysis Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-813-1.2	<b>Acrylamide (+100 ppm hydroquinone) (1,2,3-<sup>13</sup>C<sub>3</sub>,99%)</b>	H <sub>2</sub> *C=CH*CONH <sub>2</sub>	1 mg/mL in Methanol	1.2 mL
ULM-6721-1.2	<b>Acrylamide (+100 ppm hydroquinone) (unlabeled)</b>	H <sub>2</sub> C=CHCONH <sub>2</sub>	1 mg/mL in Methanol	1.2 mL
DLM-7170-1.2	<b>1-Aminohydantoin hydrochloride (AHD) (5,5-D<sub>2</sub>,98%)</b>	C <sub>3</sub> H <sub>3</sub> D <sub>2</sub> N <sub>3</sub> O <sub>2</sub> Cl	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-7188-1.2	<b>1-Aminohydantoin hydrochloride (AHD) (unlabeled)</b>	C <sub>3</sub> H <sub>5</sub> N <sub>3</sub> O <sub>2</sub> ·HCl	100 µg/mL in Methanol	1.2 mL
DLM-7171-1.2	<b>3-Amino-2-oxazolidone (AOZ) (ring-D<sub>4</sub>,98%)</b>	C <sub>3</sub> H <sub>2</sub> D <sub>4</sub> N <sub>2</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-7189-1.2	<b>3-Amino-2-oxazolidone (AOZ) (unlabeled)</b>	C <sub>3</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub> ·HCl	100 µg/mL in Methanol	1.2 mL
DLM-7172-1.2	<b>5-(4-Morpholinylmethyl)-3-amino-2-oxazolidinone (AMOZ) (4,4,5,5',5'-D<sub>5</sub>,98%)</b>	C <sub>8</sub> H <sub>10</sub> D <sub>5</sub> N <sub>3</sub> O <sub>3</sub>	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-7190-1.2	<b>5-(4-Morpholinylmethyl)-3-amino-2-oxazolidinone (AMOZ) (unlabeled)</b>	C <sub>8</sub> H <sub>15</sub> N <sub>3</sub> O <sub>3</sub>	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> CLM-8589-1.2	<b>Ammelide (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>4</sub> N <sub>4</sub> O <sub>2</sub>	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
<b>NEW</b> ULM-8590-1.2	<b>Ammelide (unlabeled)</b>	C <sub>3</sub> H <sub>4</sub> N <sub>4</sub> O <sub>2</sub>	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
<b>NEW</b> CLM-8316-1.2	<b>Ammeline (Desethyldeisopropylhydroxyatrazine) (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>5</sub> N <sub>5</sub> O	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
<b>NEW</b> ULM-8323-1.2	<b>Ammeline (Desethyldeisopropylhydroxyatrazine) (unlabeled)</b>	C <sub>3</sub> H <sub>5</sub> N <sub>5</sub> O	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
<b>NEW</b> CLM-4748-1.2	<b>1,6-Anhydro-β-D-glucose (Levoglucozan) (<sup>13</sup>C<sub>6</sub>,98%)</b>	*C <sub>6</sub> H <sub>10</sub> O <sub>5</sub>	100 µg/mL in DMSO	1.2 mL
<b>NEW</b> ULM-8000-1.2	<b>1,6-Anhydro-β-D-glucose (Levoglucozan) (unlabeled)</b>	C <sub>6</sub> H <sub>10</sub> O <sub>5</sub>	100 µg/mL in DMSO	1.2 mL
<b>NEW</b> DLM-119-1.2	<b>Chloramphenicol (D<sub>5</sub>,98%)</b>	NO <sub>2</sub> C <sub>6</sub> D <sub>4</sub> C <sub>5</sub> DH <sub>5</sub> O <sub>3</sub> NCl <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
ULM-6687-1.2	<b>(+/-)-Chloramphenicol (unlabeled)</b>	NO <sub>2</sub> C <sub>6</sub> H <sub>4</sub> C <sub>5</sub> H <sub>6</sub> O <sub>3</sub> NCl <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> DLM-4633-1.2	<b>3-Chloro-1,2-propanediol (~10% 2-Chloro-1,3-propanediol) (propane-D<sub>5</sub>,98%)</b>	ClCD <sub>2</sub> CD <sub>2</sub> OH	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-7998-1.2	<b>3-Chloro-1,2-propanediol (unlabeled)</b>	ClCH <sub>2</sub> CHOHCH <sub>2</sub> OH	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> CNLM-4661-1.2	<b>Cyanuric acid (<sup>13</sup>C<sub>3</sub>,99%;<sup>15</sup>N<sub>3</sub>,98%+) (CP: 90%+)</b>	*C <sub>3</sub> H <sub>3</sub> *N <sub>3</sub> O <sub>3</sub>	100 µg/mL in Water	1.2 mL
<b>NEW</b> CNLM-4661-10X-1.2	<b>Cyanuric acid (<sup>13</sup>C<sub>3</sub>,99%;<sup>15</sup>N<sub>3</sub>,98%+) (CP: 90%+)</b>	*C <sub>3</sub> H <sub>3</sub> *N <sub>3</sub> O <sub>3</sub>	1000 µg/mL in Water	1.2 mL
<b>NEW</b> ULM-8157-1.2	<b>Cyanuric acid (unlabeled)</b>	C <sub>3</sub> H <sub>3</sub> N <sub>3</sub> O <sub>3</sub>	100 µg/mL in Water	1.2 mL
<b>NEW</b> DLM-1632-1.2	<b>Diethylene glycol (D<sub>8</sub>,98%)</b>	C <sub>4</sub> D <sub>8</sub> H <sub>2</sub> O <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8235-1.2	<b>Diethylene glycol (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> CNLM-8150-1.2	<b>Melamine (<sup>13</sup>C<sub>3</sub>,99%;amino-<sup>15</sup>N<sub>3</sub>,98%)</b>	*C <sub>3</sub> H <sub>6</sub> *N <sub>3</sub> N <sub>3</sub>	100 µg/mL in Water	1.2 mL
<b>NEW</b> CNLM-8150-10X-1.2	<b>Melamine (<sup>13</sup>C<sub>3</sub>,99%;amino-<sup>15</sup>N<sub>3</sub>,98%)</b>	*C <sub>3</sub> H <sub>6</sub> *N <sub>3</sub> N <sub>3</sub>	1000 µg/mL in Water	1.2 mL
<b>NEW</b> ULM-8156-1.2	<b>Melamine (unlabeled)</b>	C <sub>3</sub> H <sub>6</sub> N <sub>3</sub> N <sub>3</sub>	100 µg/mL in Water	1.2 mL

## Food and Drinking Water Analysis Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> DLM-4412-25	<b>(-)-Menthol (1,2,6,6-D<sub>4</sub>,98%)</b>	C <sub>10</sub> H <sub>16</sub> D <sub>4</sub> O	Neat	25 mg
<b>NEW</b> DLM-4766-1.2	<b>2-Methylisoborneol (2-methyl-D<sub>3</sub>,98%)</b>	C <sub>11</sub> H <sub>17</sub> D <sub>3</sub> O	100 µg/mL in Nonane	1.2 mL
CDLM-7279-S	<b>N-Nitrosodimethylamine (<sup>13</sup>C<sub>2</sub>,99%;D<sub>6</sub>,98%)</b>	*C <sub>2</sub> D <sub>6</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
OLM-7310-1.2	<b>Perchloric acid, sodium salt (<sup>18</sup>O<sub>4</sub>,90%+)</b>	NaCl*O <sub>4</sub>	100 µg/mL in Water	1.2 mL
<b>NEW</b> ULM-7312-1.2	<b>Perchloric acid, sodium salt (unlabeled)</b>	NaClO <sub>4</sub>	100 µg/ml in Water	1.2 mL
<b>NEW</b> CLM-3733-1.2	<b>o-Phenylphenol (phenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/ml in Nonane	1.2 mL
<b>NEW</b> ULM-7396-1.2	<b>o-Phenylphenol (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/ml in Nonane	1.2 mL
CLM-3748-1.2	<b>p-Phenylphenol (<sup>13</sup>C<sub>6</sub>,99%) (CP: 96%)</b>	*C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> OLM-8283-1.2	<b>Potassium bromate (<sup>18</sup>O<sub>3</sub>,98%) (CP: 90-95%)</b>	KBr*O <sub>3</sub>	100 µg/mL in Water	1.2 mL
<b>NEW</b> ULM-8451-1.2	<b>Potassium bromate (unlabeled)</b>	KBrO <sub>3</sub>	100 µg/mL in Water	1.2 mL
CNLM-7221-1.2	<b>Semicarbazide hydrochloride (SEM) (<sup>13</sup>C,99%;<sup>15</sup>N<sub>2</sub>,98%)</b>	*CH <sub>5</sub> *N <sub>2</sub> NO·HCl	100 µg/mL in Methanol	1.2 mL
ULM-7187-1.2	<b>Semicarbazide hydrochloride (SEM) (unlabeled)</b>	CH <sub>5</sub> N <sub>3</sub> O·HCl	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> DLM-6083-1.2	<b>2,4,6-Trichloroanisole (D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>3</sub> OCD <sub>3</sub>	1 mg/mL in Methanol-D	1.2 mL
<b>NEW</b> ULM-7999-1.2	<b>2,4,6-Trichloroanisole (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OCH <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
CLM-6779-1.2	<b>2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>7</sub> Cl <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6935-1.2	<b>2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) (unlabeled)</b>	C <sub>12</sub> H <sub>7</sub> Cl <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-2080-1.2	<b>1,2,3-Trichloropropane (D<sub>5</sub>,98%) (CP: 95%)</b>	CD <sub>2</sub> ClC <sub>2</sub> Cl	1 mg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-6911-1.2	<b>1,2,3-Trichloropropane (unlabeled)</b>	CH <sub>2</sub> ClCHClCH <sub>2</sub> Cl	1 mg/mL in Methanol	1.2 mL

Please also see the sections on PCBs, Pesticides, PAHs and Priority Pollutants for other products that can be used in Food and Water analysis.



## Phthalate and Phthalate Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-1369-1.2	<b>Benzyl butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ][CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ]	100 µg/mL in Nonane	1.2 mL
CLM-4675-1.2	<b>Bis(2-ethylhexyl) adipate (adipate-<sup>13</sup>C<sub>6</sub>,99%)</b>	(*CH <sub>2</sub> ) <sub>4</sub> [*CO <sub>2</sub> [CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ]] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6566-1.2	<b>Bis(2-ethylhexyl) adipate (unlabeled)</b>	(CH <sub>2</sub> ) <sub>4</sub> [CO <sub>2</sub> [CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ]] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1368-1.2	<b>Bis(2-ethylhexyl) phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-6241-1.2	<b>Bis(2-ethylhexyl) phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	1000 µg/mL in Nonane	1.2 mL
DLM-1367-1.2	<b>Di-n-butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4670-1.2	<b>Dicyclohexyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> C <sub>6</sub> H <sub>11</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-8785-1.2	<b>Dicyclohexyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> C <sub>6</sub> H <sub>11</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1629-1.2	<b>Diethyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6174-1.2	<b>Diethyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4669-1.2	<b>Di-n-hexyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7434-1.2	<b>Di-n-hexyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1366-1.2	<b>Dimethyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1630-1.2	<b>Di-n-octyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6129-1.2	<b>Di-n-octyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4668-1.2	<b>Di-n-pentyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7433-1.2	<b>Di-n-pentyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4591-1.2	<b>Monobenzyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ][*CO <sub>2</sub> H]	100 µg/mL in MTBE	1.2 mL
ULM-6149-1.2	<b>Monobenzyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ][CO <sub>2</sub> H]	100 µg/mL in MTBE	1.2 mL
CLM-4590-1.2	<b>Mono-n-butyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-6148-1.2	<b>Mono-n-butyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8148-1.2	<b>Mono-(5-carboxy-2-ethylpentyl) phthalate (DEHP Metabolite V) (<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> (CH <sub>2</sub> CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8149-1.2	<b>Mono-(5-carboxy-2-ethylpentyl) phthalate (DEHP Metabolite V) (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> (CH <sub>2</sub> CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8232	<b>Mono-[(2-carboxymethyl) hexyl] phthalate (DEHP Metabolite IV) (<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> CO <sub>2</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8233-1.2	<b>Mono-[(2-carboxymethyl) hexyl] phthalate (DEHP Metabolite IV) (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> CO <sub>2</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL

## Phthalate and Phthalate Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> CLM-6847-1.2	<b>Mono-(3-carboxypropyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CO <sub>2</sub> H][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-6848-1.2	<b>Mono-(3-carboxypropyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CO <sub>2</sub> H][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-4592-1.2	<b>Monocyclohexyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> C <sub>6</sub> H <sub>11</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7394-1.2	<b>Monocyclohexyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> C <sub>6</sub> H <sub>11</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
CLM-4584-1.2	<b>Mono-2-ethylhexyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-4583-1.2	<b>Mono-2-ethylhexyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
CLM-6641-1.2	<b>Mono-(2-ethyl-5-hydroxyhexyl phthalate (DEHP Metabolite IX) (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )CH <sub>2</sub> CH <sub>2</sub> CH(OH)CH <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-4662-1.2	<b>Mono-(2-ethyl-5-hydroxyhexyl phthalate (DEHP Metabolite IX) (unlabeled)</b>	C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )CH <sub>2</sub> CH <sub>2</sub> CH(OH)CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-6640-1.2	<b>Mono-(2-ethyl-5-oxohexyl phthalate (DEHP Metabolite VI) (<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )CH <sub>2</sub> CH <sub>2</sub> COCH <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-4663-1.2	<b>Mono-(2-ethyl-5-oxohexyl phthalate (DEHP Metabolite VI) (unlabeled)</b>	C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )CH <sub>2</sub> CH <sub>2</sub> COCH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
CLM-4586-1.2	<b>Monoethyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-4585-1.2	<b>Monoethyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7919-1.2	<b>Monoisobutyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-4652-1.2	<b>Monoisodecyl phthalate (Mono-3,7-dimethyloctyl phthalate) (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> CH(CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> CH(CH <sub>3</sub> ) <sub>2</sub> )]][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
CLM-4587-1.2	<b>Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>6</sub> CH(CH <sub>3</sub> ) <sub>2</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-4651-1.2	<b>Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>6</sub> CH(CH <sub>3</sub> ) <sub>2</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7395-1.2	<b>Monoisopropyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
CLM-6071-1.2	<b>Monomethyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> CH <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-6697-1.2	<b>Monomethyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
CLM-4589-1.2	<b>Mono-<i>n</i>-octyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub> ][*CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
ULM-4593-1.2	<b>Mono-<i>n</i>-octyl phthalate (unlabeled)</b>	C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7393-1.2	<b>Mono-<i>n</i>-pentyl phthalate (unlabeled)</b>	C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> ][CO <sub>2</sub> H]	100 µg/mL in Acetonitrile	1.2 mL

### Nonylphenol, Nonylphenol Ethoxylate and Nonylphenol Carboxylate Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> CLM-8356-1.2	<b>4-(1,3-Dimethyl-1-ethylpentyl) phenol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	(CH <sub>3</sub> CH <sub>2</sub> CH)(CH <sub>3</sub> )CH <sub>2</sub> (CH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> )C* <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
<b>NEW</b> ULM-8360-1.2	<b>4-(1,3-Dimethyl-1-ethylpentyl) phenol (unlabeled)</b>	(CH <sub>3</sub> CH <sub>2</sub> CH)(CH <sub>3</sub> )CH <sub>2</sub> (CH <sub>3</sub> ) (CH <sub>2</sub> CH <sub>3</sub> )CC <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
<b>NEW</b> CLM-8357-1.2	<b>4-(1,4-Dimethyl-1-ethylpentyl) phenol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	(CH <sub>3</sub> ) <sub>2</sub> C(CH <sub>2</sub> ) <sub>2</sub> (CH <sub>3</sub> )(CH <sub>2</sub> CH <sub>3</sub> ) C* <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
<b>NEW</b> ULM-8361-1.2	<b>4-(1,4-Dimethyl-1-ethylpentyl) phenol (unlabeled)</b>	(CH <sub>3</sub> ) <sub>2</sub> C(CH <sub>2</sub> ) <sub>2</sub> (CH <sub>3</sub> )(CH <sub>2</sub> CH <sub>3</sub> ) CC <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
<b>NEW</b> CLM-8359-1.2	<b>4-(1-Ethyl-1-methylhexyl) phenol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	[(CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>4</sub> ](CH <sub>3</sub> )(CH <sub>2</sub> CH <sub>3</sub> ) C* <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
<b>NEW</b> ULM-8363-1.2	<b>4-(1-Ethyl-1-methylhexyl) phenol (unlabeled)</b>	[(CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>4</sub> ](CH <sub>3</sub> )(CH <sub>2</sub> CH <sub>3</sub> ) CC <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
CLM-4306-1.2	<b>p-n-Nonylphenol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> *C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-4559-1.2	<b>p-n-Nonylphenol (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-4307-1.2	<b>p-n-Nonylphenol diethoxylate (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> *C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> O (CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-4521-1.2	<b>p-n-Nonylphenol diethoxylate (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> O (CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-4521-SA-5X-1.2	<b>p-n-Nonylphenol diethoxylate (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> O (CH <sub>2</sub> ) <sub>2</sub> OH	500 µg/mL in Acetonitrile	1.2 mL
CLM-4512-1.2	<b>p-n-Nonylphenol monoethoxylate (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> *C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-4520-1.2	<b>p-n-Nonylphenol monoethoxylate (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-4520-SA-5X-1.2	<b>p-n-Nonylphenol monoethoxylate (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	500 µg/mL in Acetonitrile	1.2 mL
CLM-4516-1.2	<b>p-n-Nonylphenol triethoxylate (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> *C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> O (CH <sub>2</sub> ) <sub>2</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
ES-4157	<b>p-n-Nonylphenol + Mono-/Di-/Tri-ethoxylates (set of individual standards) 1 ampoule each of CLM-4306-1.2, CLM-4512-1.2, CLM-4307-1.2 and CLM-4516-1.2</b>			Set of 4 x 1.2 mL
ULM-6560-1.2	<b>p-Nonylphenol-Technical Grade (unlabeled)</b>	C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-7146-1.2	<b>Nonylphenol monoethoxylate – branched isomers (unlabeled)</b>	C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-7147-1.2	<b>Nonylphenol diethoxylate – branched isomers (unlabeled)</b>	C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> (OCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-4688-1.2	<b>Nonylphenoxyacetic acid – ring/chain isomers (unlabeled)</b>	C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>2</sub> CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
ULM-4690-1.2	<b>p-n-Nonylphenoxyethoxyacetic acid (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OCH <sub>2</sub> CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8358-1.2	<b>4-(1,1,5-Trimethylhexyl) phenol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	(CH <sub>3</sub> ) <sub>2</sub> C(CH <sub>2</sub> ) <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub> (CH <sub>2</sub> CH <sub>3</sub> )C* <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL
<b>NEW</b> ULM-8362-1.2	<b>4-(1,1,5-Trimethylhexyl) phenol (unlabeled)</b>	(CH <sub>3</sub> ) <sub>2</sub> C(CH <sub>2</sub> ) <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub> (CH <sub>2</sub> CH <sub>3</sub> )CC <sub>6</sub> H <sub>4</sub> OH	Inquire	1.2 mL

## Perfluorinated Compound Standards

	Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b>	CLM-8340-1.2	<b>Perfluorohexanoic Acid (PFHxA), sodium salt (<sup>13</sup>C<sub>6</sub>,99%)</b>	*CF <sub>3</sub> (*CF <sub>2</sub> ) <sub>4</sub> *CO <sub>2</sub> Na	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8342-1.2	<b>Perfluorohexanoic Acid (PFHxA), sodium salt (unlabeled)</b>	CF <sub>3</sub> (CF <sub>2</sub> ) <sub>4</sub> CO <sub>2</sub> Na	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	CLM-8005-1.2	<b>Perfluorooctanoic Acid (PFOA) (<sup>13</sup>C<sub>8</sub>,99%)</b>	*CF <sub>3</sub> (*CF <sub>2</sub> ) <sub>6</sub> *CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-7451-1.2	<b>Perfluorooctanoic Acid (PFOA) (unlabeled)</b>	CF <sub>3</sub> (CF <sub>2</sub> ) <sub>6</sub> CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	CLM-8060-1.2	<b>Perfluorononanoic Acid (PFNA) (<sup>13</sup>C<sub>9</sub>,99%)</b>	*CF <sub>3</sub> (*CF <sub>2</sub> ) <sub>7</sub> *CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8066-1.2	<b>Perfluorononanoic Acid (PFNA) (unlabeled)</b>	CF <sub>3</sub> (CF <sub>2</sub> ) <sub>7</sub> CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	CLM-8172-1.2	<b>Perfluorodecanoic Acid (PFDA) (<sup>13</sup>C<sub>9</sub>,99%)</b>	CF <sub>3</sub> (*CF <sub>2</sub> ) <sub>8</sub> *CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8067-1.2	<b>Perfluorodecanoic Acid (PFDA) (unlabeled)</b>	CF <sub>3</sub> (CF <sub>2</sub> ) <sub>8</sub> CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	CLM-8240-1.2	<b>Perfluoroundecanoic Acid (PFUA) (<sup>13</sup>C<sub>9</sub>,99%)</b>	*CF <sub>3</sub> (*CF <sub>2</sub> ) <sub>8</sub> CF <sub>2</sub> CO <sub>2</sub> H	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8084-1.2	<b>Perfluoroundecanoic Acid (PFUA), sodium salt (unlabeled)</b>	CF <sub>3</sub> (CF <sub>2</sub> ) <sub>9</sub> CO <sub>2</sub> Na	50 µg/mL in Methanol	1.2 mL

## Nitrosamine Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> DLM-7779-S	<b>N-Nitrodimethylamine (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>2</sub> D <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> ULM-7780-S	<b>N-Nitrodimethylamine (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride	1 mL
ULM-7168-1.2	<b>Nitrosoanabasine (NAB) (unlabeled)</b>	C <sub>10</sub> H <sub>13</sub> N <sub>3</sub> O	0.5 mg/mL in Acetonitrile	1.2 mL
ULM-7207-1.2	<b>Nitrosoanatabine (NAT) (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> N <sub>3</sub> O	2 mg/mL in Acetonitrile	1.2 mL
<b>NEW</b> DLM-7982-S	<b>N-Nitrosodiethylamine (D<sub>10</sub>,98%)</b>	(C <sub>2</sub> D <sub>5</sub> ) <sub>2</sub> NNO	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> ULM-7984-1.2	<b>N-Nitrosodiethylamine (unlabeled)</b>	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NNO	1 mg/mL in Methylene chloride	1.2 mL
CDLM-7279-S	<b>N-Nitrosodimethylamine (<sup>13</sup>C<sub>2</sub>,99%;D<sub>6</sub>,98%)</b>	*C <sub>2</sub> D <sub>6</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
DLM-2130-S	<b>N-Nitrosodimethylamine (2,2',4,4',6,6'-D<sub>6</sub>,98%)</b>	C <sub>2</sub> D <sub>6</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> NLM-7647-S	<b>N-Nitrosodimethylamine (<sup>15</sup>N<sub>2</sub>,98%)</b>	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> *N*NO	1 mg/mL in Methylene chloride	1 mL
DLM-3098-S	<b>N-Nitrosodiphenylamine (2,2',4,4',6,6'-D<sub>6</sub>,98%)</b>	(C <sub>6</sub> D <sub>5</sub> H <sub>2</sub> ) <sub>2</sub> NN=O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> ULM-7219-1.2	<b>N-Nitrosodiphenylamine (unlabeled)</b>	C <sub>12</sub> H <sub>10</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride	1.2 mL
DLM-2131-S	<b>N-Nitrosodi-n-propylamine (D<sub>14</sub>,98%)</b>	C <sub>6</sub> D <sub>14</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride	1 mL
ULM-6637-S	<b>N-Nitrosodi-n-propylamine (unlabeled)</b>	C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride	1 mL
<b>NEW</b> DLM-8254-1.2	<b>N-Nitrosomorpholine (D<sub>8</sub>,98%)</b>	CD <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
<b>NEW</b> ULM-8255-1.2	<b>N-Nitrosomorpholine (unlabeled) (CP: 96%)</b>	CH <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride	1.2 mL
<b>NEW</b> DLM-8252-1.2	<b>N-Nitrosopyrrolidine (D<sub>8</sub>,98%)</b>	C <sub>4</sub> D <sub>8</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
<b>NEW</b> ULM-8253-1.2	<b>N-Nitrosopyrrolidine (unlabeled)</b>	C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride	1.2 mL
CLM-4555-1.2	<b>NNK (Nicotine-derived Nitrosamine Ketone) (1,2',3',4',5',6'-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>13</sub> N <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane/Ethanol (9:1)	1.2 mL
CLM-4557-1.2	<b>NNN (N-NitrosoNorNicotine) (2,2',3,4,5,6-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>3</sub> H <sub>11</sub> N <sub>3</sub> O	100 µg/mL in Nonane/Ethanol (9:1)	1.2 mL

## Tobacco Metabolite and Flavoring Standards

In addition to the compounds listed below, CIL is involved in ongoing programs to create standards for the analysis of tobacco products and the chemicals it produces when burned.

Catalog #	Compound	Formula	Concentration	Amount
CLM-6023-1.2	<b>4-Methylumbelliferone (2,3,4,methyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>4</sub> C <sub>6</sub> H <sub>8</sub> O <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
ULM-7309-1.2	<b>4-Methylumbelliferone (unlabeled)</b>	C <sub>10</sub> H <sub>8</sub> O <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
ULM-7168-1.2	<b>Nitrosoanabasine (NAB) (unlabeled)</b>	C <sub>10</sub> H <sub>13</sub> N <sub>3</sub> O	0.5 mg/mL in Acetonitrile	1.2 mL
ULM-7207-1.2	<b>Nitrosoanatabine (NAT) (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> N <sub>3</sub> O	2 mg/mL in Acetonitrile	1.2 mL
CLM-4555-1.2	<b>NNK (Nicotine-derived Nitrosamine Ketone) (1,2',3',4',5',6'-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>13</sub> N <sub>3</sub> O <sub>2</sub>	100 µg/mL in Nonane/Ethanol (9:1)	1.2 mL
CLM-4557-1.2	<b>NNN (N-Nitrosoornicotine) (2,2',3,4,5,6-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>3</sub> H <sub>11</sub> N <sub>3</sub> O	100 µg/mL in Nonane/Ethanol (9:1)	1.2 mL

## Halogenated and Substituted Benzene and Phenol Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-2268-1.2	<b>4-Bromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> BrOH	100 µg/mL in Toluene	1.2 mL
ULM-6917-1.2	<b>4-Bromophenol (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> BrOH	100 µg/mL in Toluene	1.2 mL
CLM-1913-1.2	<b>4-Chlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> ClOH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-7420-1.2	<b>4-Chlorophenol (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> ClOH	100 µg/mL in Nonane	1.2 mL
CLM-6058-1.2	<b>2,4-Dibromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>3</sub> Br <sub>2</sub> OH	100 µg/mL in Toluene	1.2 mL
ULM-6918-1.2	<b>2,4-Dibromophenol (unlabeled)</b>	C <sub>6</sub> H <sub>3</sub> Br <sub>2</sub> OH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> CLM-8007-1.2	<b>2,6-Dibromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>3</sub> Br <sub>2</sub> OH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-7603-1.2	<b>2,6-Dibromophenol (unlabeled)</b>	C <sub>6</sub> H <sub>3</sub> Br <sub>2</sub> OH	100 µg/mL in Toluene	1.2 mL
CLM-126-1.2	<b>1,2-Dichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	100 µg/mL in Isooctane	1.2 mL
CLM-4484-1.2	<b>1,3-Dichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> DLM-1359-0.5	<b>2,4-Dichlorophenol (ring-D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>2</sub> OH	Neat	0.5 g
ULM-6822-1.2	<b>2,4-Dichlorophenol (unlabeled)</b>	C <sub>6</sub> H <sub>3</sub> Cl <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-1365-1.2	<b>2,5-Dichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>3</sub> Cl <sub>2</sub> OH	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> CLM-1921-1.2	<b>Hexabromobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Br <sub>6</sub>	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-7607-1.2	<b>Hexabromobenzene (unlabeled)</b>	C <sub>6</sub> Br <sub>6</sub>	100 µg/mL in Toluene	1.2 mL
CLM-1959-1.2	<b>Pentabromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Br <sub>5</sub> OH	100 µg/mL in Toluene	1.2 mL
ULM-6922-1.2	<b>Pentabromophenol (unlabeled)</b>	C <sub>6</sub> Br <sub>5</sub> OH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> CLM-8003-1.2	<b>Pentachloroanisole (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> CH <sub>3</sub> Cl <sub>5</sub> O	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> ULM-7605-1.2	<b>Pentachloroanisole (unlabeled)</b>	C <sub>6</sub> CH <sub>3</sub> Cl <sub>5</sub> O	100 µg/mL in Toluene	1.2 mL
CLM-2050-1.2	<b>Pentachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> HCl <sub>5</sub>	100 µg/mL in Isooctane	1.2 mL
ULM-7234-1.2	<b>Pentachlorobenzene (unlabeled)</b>	C <sub>6</sub> HCl <sub>5</sub>	100 µg/mL in Isooctane	1.2 mL
CLM-1955-1.2	<b>Pentachloronitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7597-1.2	<b>Pentachloronitrobenzene (unlabeled)</b>	C <sub>6</sub> Cl <sub>5</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-661-1.2	<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-6894-1.2	<b>Pentachlorophenol (unlabeled)</b>	C <sub>6</sub> Cl <sub>5</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-1996-1.2	<b>2,3,4,5-Tetrabromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> HBr <sub>4</sub> OH	100 µg/mL in Toluene	1.2 mL
ULM-6778-1.2	<b>2,3,4,5-Tetrabromophenol (unlabeled)</b>	C <sub>6</sub> HBr <sub>4</sub> OH	100 µg/mL in Toluene	1.2 mL
CLM-1982-1.2	<b>1,2,3,4-Tetrachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Isooctane	1.2 mL
ULM-6195-1.2	<b>1,2,3,4-Tetrachlorobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> ULM-7599-1.2	<b>1,2,3,5-Tetrachlorobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> ULM-7598-1.2	<b>1,2,4,5-Tetrachlorobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> CLM-7488	<b>2,3,4-Tribromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Br <sub>3</sub> OH		Inquire
CLM-6151-1.2	<b>2,4,5-Tribromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Br <sub>3</sub> OH	100 µg/mL in Toluene	1.2 mL
ULM-6084-1.2	<b>2,4,5-Tribromophenol (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Br <sub>3</sub> OH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> CLM-6743-1.2	<b>2,4,6-Tribromophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Br <sub>3</sub> OH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> DLM-7506	<b>2,4,6-Tribromophenol (3,5-D<sub>2</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> HBr <sub>3</sub> O		Inquire
<b>NEW</b> ULM-4210-1.2	<b>2,4,6-Tribromophenol (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Br <sub>3</sub> OH	100 µg/mL in Toluene	1.2 mL
CLM-1836-1.2	<b>3,4,5-Tribromophenol (<sup>13</sup>C<sub>6</sub>,98%)</b>	*C <sub>6</sub> H <sub>2</sub> Br <sub>3</sub> OH	100 µg/mL in Toluene	1.2 mL
<b>NEW</b> CLM-513-SI-1.2	<b>2,4,5-Trichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OH	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> ULM-7525-1.2	<b>2,4,5-Trichlorophenol (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OH	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> CLM-1804-SI-1.2	<b>2,4,6-Trichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OH	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> ULM-7600-1.2	<b>2,4,6-Trichlorophenol (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OH	100 µg/mL in Methanol	1.2 mL

Please also see the Priority Pollutant Mixtures section for Halogenated Benzene and Phenol cocktails.



Endocrine Disrupting Compounds and Xenoestrogen Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-1643-1.2	<b>Acenaphthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-108-1.2	<b>Acenaphthene (D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7413-1.2	<b>Acenaphthene (unlabeled)</b>	C <sub>12</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3727-1.2	<b>Alachlor (ring-<sup>13</sup>C<sub>6</sub>,99%) (CP: 96%+)</b>	*C <sub>6</sub> C <sub>8</sub> H <sub>20</sub> ClNO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4725-1.2	<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1333-1.2	<b>Anthracene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>8</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-102-1.2	<b>Anthracene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7412-1.2	<b>Anthracene (unlabeled)</b>	C <sub>14</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3737-1.2	<b>Atrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>5</sub> C <sub>5</sub> H <sub>14</sub> ClN <sub>5</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3602-1.2	<b>Benz[a]anthracene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
DLM-610-1.2	<b>Benz[a]anthracene (D<sub>12</sub>,98%)</b>	C <sub>18</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-2415-1.2	<b>Benz[a]anthracene (unlabeled)</b>	C <sub>18</sub> H <sub>12</sub>	1mg/mL in Methanol	1.2 mL
CLM-2722-1.2	<b>Benzo[a]pyrene (<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>4</sub> C <sub>16</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
DLM-258-1.2	<b>Benzo[a]pyrene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-8717-1.2	<b>Benzo[a]pyrene (unlabeled)</b>	C <sub>20</sub> H <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3599-1.2	<b>Benzo[b]fluoranthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>14</sub> H <sub>11</sub>	100 µg/mL in Nonane	1.2 mL
DLM-2136-1.2	<b>Benzo[b]fluoranthene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-2416-1.2	<b>Benzo[b]fluoranthene (unlabeled)</b>	C <sub>20</sub> H <sub>12</sub>	1 mg/mL in Acetone	1.2 mL
CLM-3756-1.2	<b>Benzo[k]fluoranthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>14</sub> H <sub>11</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1923-1.2	<b>Benzo[k]fluoranthene (D<sub>12</sub>,98%)</b>	C <sub>20</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-1369-1.2	<b>Benzyl butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ][CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ]	100 µg/mL in Nonane	1.2 mL
CLM-2482-1.2	<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3623-1.2	<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	50 µg/mL in Nonane	2 x 1.2 mL
CLM-1282-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4675-1.2	<b>Bis(2-ethylhexyl) adipate (adipate-<sup>13</sup>C<sub>6</sub>,99%)</b>	(*CH <sub>2</sub> ) <sub>4</sub> [*CO <sub>2</sub> CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ]	100 µg/mL in Nonane	1.2 mL
DLM-1368-1.2	<b>Bis(2-ethylhexyl) phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-[CO <sub>2</sub> C <sub>8</sub> H <sub>17</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-6241-1.2	<b>Bis(2-ethylhexyl) phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(CH <sub>2</sub> CH <sub>3</sub> )(CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub> ] <sub>2</sub>	1000 µg/mL in Nonane	1.2 mL
CLM-4325-1.2	<b>Bisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
ULM-7106-1.2	<b>Bisphenol A (unlabeled)</b>	(C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8654-1.2	<b>2,4'-Bisphenol A (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4674-1.2	<b>n-Butylbenzene (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> C <sub>4</sub> H <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4682-1.2	<b>Carbaryl (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>11</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-8096-1.2	<b>Carbaryl (unlabeled)</b>	C <sub>10</sub> H <sub>7</sub> CO <sub>2</sub> NHCH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4792-1.2	<b>trans-Chlordane (γ-Chlordane) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4814-1.2	<b>Chlordecone (Kepone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2301-1.2	<b>Chlordecone (Kepone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4758-1.2	<b>Chlordene (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7443-1.2	<b>Chlordene (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
DLM-4360-1.2	<b>Chlorpyrifos (diethyl-D<sub>10</sub>,99%)</b>	C <sub>9</sub> D <sub>10</sub> H <sub>1</sub> Cl <sub>3</sub> NO <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
CLM-3757-1.2	<b>Chrysene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
DLM-261-1.2	<b>Chrysene (D<sub>12</sub>,98%)</b>	C <sub>18</sub> D <sub>12</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
ULM-7424-1.2	<b>Chrysene (unlabeled)</b>	C <sub>18</sub> H <sub>12</sub>	200 µg/mL in Toluene	1.2 mL
DLM-4461-1.2	<b>Daidzein (3',5',8-D<sub>3</sub>,97%)</b>	C <sub>15</sub> D <sub>3</sub> H <sub>7</sub> O <sub>4</sub>	60 µg/mL in Acetonitrile-D <sub>3</sub>	2 x 1.2 mL
ULM-4459-1.2	<b>Daidzein (unlabeled)</b>	C <sub>15</sub> H <sub>10</sub> O <sub>4</sub>	60 µg/mL in Acetonitrile	1.2 mL
CLM-6999-1.2	<b>2,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
DLM-3533-1.2	<b>4,4'-DDD (ring-D<sub>8</sub>,98%)</b>	C <sub>14</sub> D <sub>8</sub> H <sub>4</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4693-1.2	<b>2,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6251-1.2	<b>2,4'-DDE (unlabeled)</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1627-1.2	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4692-1.2	<b>2,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6134-1.2	<b>2,4'-DDT (unlabeled)</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1281-1.2	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6135-1.2	<b>4,4'-DDT (unlabeled)</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL

## Endocrine Disrupting Compounds and Xenoestrogen Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-1148-1.2	<b>Diazinon (diethyl-D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub> H <sub>11</sub> N <sub>2</sub> O <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
DLM-2943-1.2	<b>2,6-Di(<i>tert</i>-butyl)-4-methylphenol (BHT) (D<sub>21</sub>,98%)</b>	C <sub>6</sub> H <sub>2</sub> (C(CD <sub>3</sub> ) <sub>3</sub> ) <sub>2</sub> CH <sub>3</sub> OH	100 µg/mL in Nonane	1.2 mL
DLM-1367-1.2	<b>Di-<i>n</i>-butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1669-0.1	<b>2,4-Dichlorophenol (ring-D<sub>3</sub>, OD,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>2</sub> OD	Neat	0.1 g
CLM-1858-1.2	<b>2,4-Dichlorophenoxyacetic acid (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	Cl <sub>2</sub> *C <sub>6</sub> H <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL
CLM-4726-1.2	<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7230-1.2	<b>Dieldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
DLM-1629-1.2	<b>Diethyl phthalate (ring-D<sub>4</sub>,98%)</b>	*C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
	<b>Diethyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4669-1.2	<b>Di-<i>n</i>-hexyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>4</sub> C <sub>4</sub> H <sub>4</sub> (*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7434-1.2	<b>Di-<i>n</i>-hexyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> (CO <sub>2</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4668-1.2	<b>Di-<i>n</i>-pentyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> (*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7433-1.2	<b>Di-<i>n</i>-pentyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4671-1.2	<b>Di-<i>n</i>-propyl phthalate (ring-1,2-<sup>13</sup>C<sub>2</sub>, dicarboxyl-<sup>13</sup>C<sub>2</sub>,99%)</b>	*C <sub>2</sub> C <sub>4</sub> H <sub>4</sub> (*CO <sub>2</sub> (CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7436-1.2	<b>Di-<i>n</i>-propyl phthalate (unlabeled)</b>	C <sub>14</sub> H <sub>18</sub> O <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
CLM-6025-1.2	<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
DLM-2862-1.2	<b>Endosulfan I (D<sub>4</sub>,97%)</b>	C <sub>9</sub> D <sub>4</sub> H <sub>2</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7447-1.2	<b>Endosulfan I (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-6026-1.2	<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7448-1.2	<b>Endosulfan II (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-4782-1.2	<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7444-1.2	<b>Endrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4815-50	<b>Endrin aldehyde (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-4816-50	<b>Endrin ketone (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	Neat	50 µg
DLM-4460-1.2	<b>Genistein (3',5',6,8-D<sub>4</sub>,95%)</b>	C <sub>15</sub> D <sub>4</sub> H <sub>5</sub> O <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4759-1.2	<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-1.2	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4734-1.2	<b>cis-Heptachlor epoxide (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-1.2	<b>Heptachlor epoxide (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-351-1.2	<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6130-1.2	<b>Hexachlorobenzene (unlabeled)</b>	C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3600-1.2	<b>Indeno[1,2,3-<i>cd</i>]pyrene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>14</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
DLM-2148-1.2	<b>Indeno[1,2,3-<i>cd</i>]pyrene (D<sub>12</sub>,98%)</b>	C <sub>22</sub> D <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-4727-1.2	<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7442-1.2	<b>Isodrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
DLM-4476-1.2	<b>Malathion (D<sub>10</sub>,99%)</b>	C <sub>10</sub> D <sub>10</sub> H <sub>9</sub> O <sub>6</sub> PS <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-8122-1.2	<b>Malathion (unlabeled)</b>	(CH <sub>3</sub> O) <sub>2</sub> P=SSCH(CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> )CH <sub>2</sub> CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4683-1.2	<b>Methoxychlor (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(H <sub>3</sub> C*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7440-1.2	<b>Methoxychlor (unlabeled)</b>	(H <sub>3</sub> CC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3712-1.2	<b>Metolachlor (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>9</sub> H <sub>22</sub> ClNO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7314-1.2	<b>Metolachlor (unlabeled)</b>	C <sub>15</sub> H <sub>22</sub> ClNO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4813-1.2	<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2427-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3913-S	<b>4-Nitrotoluene (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> CH <sub>3</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
ULM-3891-1.2	<b>4-Nitrotoluene (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> CH <sub>3</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
CLM-4811-1.2	<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7445-1.2	<b>cis-Nonachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4735-1.2	<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7229-1.2	<b>trans-Nonachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL



## Endocrine Disrupting Compounds and Xenoestrogen Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-4306-1.2	<b>p-n-Nonylphenol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> *C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-4559-1.2	<b>p-n-Nonylphenol (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-4512-1.2	<b>p-n-Nonylphenol monoethoxylate (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> *C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-4520-1.2	<b>p-n-Nonylphenol monoethoxylate (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>8</sub> C <sub>6</sub> H <sub>4</sub> O(CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-4729-1.2	<b>Oxychlorthane (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-1.2	<b>Oxychlorthane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
DLM-2970-1.2	<b>Parathion (diethyl-D<sub>10</sub>,98%)</b>	C <sub>10</sub> D <sub>10</sub> H <sub>4</sub> NOPS	100 µg/mL in Nonane	1.2 mL
NEW ULM-8144-1.2	<b>Parathion (unlabeled)</b>	NO <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> )OP(=S)(OC <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
NEW CLM-7930-1.2	<b>Parlar 26 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>10</sub> Cl <sub>8</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-7828-1.2	<b>Parlar 26 (unlabeled)</b>	C <sub>10</sub> H <sub>10</sub> Cl <sub>8</sub>	10 µg/mL in Nonane	1.2 mL
NEW CLM-8705-1.2	<b>Parlar 32 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-8665-1.2	<b>Parlar 32 (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
NEW CLM-8719-1.2	<b>Parlar 39 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-8767-1.2	<b>Parlar 39 (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
NEW CLM-7931-1.2	<b>Parlar 50 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-7829-1.2	<b>Parlar 50 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW CLM-7932-1.2	<b>Parlar 62 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-7830-1.2	<b>Parlar 62 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW CLM-8720-1.2	<b>Parlar 69 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-8768-1.2	<b>Parlar 69 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW CLM-8721-1.2	<b>Parlar 70 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
NEW ULM-8769-1.2	<b>Parlar 70 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
EC-1404-3	<b>PCB-77 (3,3',4,4'-TetraCB) (<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> Cl <sub>2</sub> H <sub>3</sub> ) <sub>2</sub>	40 µg/mL in Nonane	3 mL
EC-1425-3	<b>PCB-126 (3,3',4,4',5-PentaCB) (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>3</sub> H <sub>2</sub> *C <sub>6</sub> Cl <sub>2</sub> H <sub>3</sub>	40 µg/mL in Nonane	3 mL
EC-1416-3	<b>PCB-169 (3,3',4,4',5,5'-HexaCB) (<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> Cl <sub>3</sub> H <sub>2</sub> ) <sub>2</sub>	40 µg/mL in Nonane	3 mL
CLM-2050-1.2	<b>Pentachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> HCl <sub>5</sub>	100 µg/mL in Isooctane	1.2 mL
ULM-7234-1.2	<b>Pentachlorobenzene (unlabeled)</b>	C <sub>6</sub> HCl <sub>5</sub>	100 µg/mL in Isooctane	1.2 mL
CLM-1955-1.2	<b>Pentachloronitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
NEW ULM-7597-1.2	<b>Pentachloronitrobenzene (unlabeled)</b>	C <sub>6</sub> Cl <sub>5</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-661-1.2	<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-6894-1.2	<b>Pentachlorophenol (unlabeled)</b>	C <sub>6</sub> Cl <sub>5</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-7322-1.2	<b>cis-Permethrin (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>15</sub> H <sub>20</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
NEW ULM-8526-1.2	<b>cis-Permethrin (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
CLM-7323-1.2	<b>trans-Permethrin (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>15</sub> H <sub>20</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
ULM-8527-1.2	<b>trans-Permethrin (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
CLM-2451-1.2	<b>Phenanthrene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>8</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-371-1.2	<b>Phenanthrene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
ULM-7427-1.2	<b>Phenanthrene (unlabeled)</b>	C <sub>14</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3739-1.2	<b>Simazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>4</sub> H <sub>12</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL
CLM-4694-1.2	<b>Tetrabromobisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> Br <sub>2</sub> H <sub>2</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
NEW ULM-8734-1.2	<b>Tetrabromobisphenol A (unlabeled)</b>	(C <sub>6</sub> Br <sub>2</sub> H <sub>2</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
ED-900	<b>2,3,7,8-Tetrachlorodibenzo-p-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> H <sub>2</sub> Cl <sub>2</sub> ) <sub>2</sub> O <sub>2</sub>	50 µg/mL in Nonane	1.2 mL
ED-901	<b>2,3,7,8-Tetrachlorodibenzo-p-dioxin (unlabeled)</b>	(C <sub>6</sub> H <sub>2</sub> Cl <sub>2</sub> ) <sub>2</sub> O <sub>2</sub>	50 µg/mL in Nonane	4 x 1.2 mL
CLM-4551-1.2	<b>2,4,5-Trichlorophenoxyacetic acid (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>2</sub> H <sub>5</sub> Cl <sub>3</sub> O <sub>3</sub>	100 µg/mL in Methylene chloride	1.2 mL
ULM-7213-1.2	<b>2,4,5-Trichlorophenoxyacetic acid (unlabeled)</b>	C <sub>6</sub> C <sub>2</sub> H <sub>5</sub> Cl <sub>3</sub> O <sub>3</sub>	100 µg/mL in Methylene chloride	1.2 mL
DLM-4479-1.2	<b>Trifluralin (di-n-propyl-D<sub>14</sub>,98%)</b>	C <sub>13</sub> D <sub>14</sub> H <sub>2</sub> F <sub>3</sub> N <sub>3</sub> O <sub>4</sub>	100 µg/mL in Nonane	1.2 mL

## Chlorinated Diphenyl Ether Standards

Catalog #	Compound	Formula	Concentration	Amount
EO-1449	<b>3,3',4,4'-Tetrachlorodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> Cl <sub>2</sub> H <sub>3</sub> ) <sub>2</sub> O	50 µg/mL in Nonane	1.2 mL
EO-1469	<b>2,3,3',4,4',5-Hexachlorodiphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>4</sub> HO*C <sub>6</sub> Cl <sub>2</sub> H <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
EO-4119	<b>4-Monochlorodiphenyl ether (unlabeled)</b>	C <sub>6</sub> ClH <sub>4</sub> OC <sub>6</sub> H <sub>5</sub>	50 µg/mL in Nonane	1.2 mL

## Other Industrial Chemical Standards

	DLM-183-1.2	<b>Benzophenone (D<sub>10</sub>,98%)</b>	(C <sub>6</sub> D <sub>5</sub> ) <sub>2</sub> C=O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-8303-1.2	<b>Benzophenone (unlabeled)</b>	(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> CO	100 µg/mL in Nonane	1.2 mL
	CLM-4325-1.2	<b>Bisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7106-1.2	<b>Bisphenol A (unlabeled)</b>	(C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b>	ULM-8654-1.2	<b>2,4'-Bisphenol A (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4674-1.2	<b>n-Butylbenzene (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> (CH <sub>2</sub> ) <sub>3</sub> CH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-4695-1.2	<b>1,2-Dibromo-3-chloropropane (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>5</sub> Br <sub>2</sub> Cl	100 µg/mL in Methanol	1.2 mL
	CLM-6144-1.2	<b>1,1-Dichloroethylene (random-<sup>13</sup>C,99%) (stabilized with Hydroquinone)</b>	*CCH <sub>2</sub> Cl <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
	ULM-7214-1.2	<b>1,1-Dichloroethylene (unlabeled) (stabilized with Hydroquinone)</b>	CCH <sub>2</sub> Cl <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
	CLM-6145-1.2	<b>1,2-Dichloroethylene (<sup>13</sup>C<sub>1</sub>,99%) (cis/trans mix) (stabilized with Hydroquinone)</b>	*CCH <sub>2</sub> Cl <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
	ULM-7215-1.2	<b>1,2-Dichloroethylene (unlabeled) (cis/trans mix) (stabilized with Hydroquinone)</b>	CCH <sub>2</sub> Cl <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
	CLM-1305-1.2	<b>2,4-Dichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>3</sub> Cl <sub>2</sub> OH	100 µg/mL in Nonane	1.2 mL
	CLM-3374-1.2	<b>Epichlorohydrin (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>5</sub> ClO	100 µg/mL in Acetonitrile	1.2 mL
	DLM-1008-1	<b>Epichlorohydrin (D<sub>5</sub>,98%)</b>	ClCD <sub>2</sub> CDCD <sub>2</sub> O	Neat	1 g
	ULM-7403-1.2	<b>Epichlorohydrin (unlabeled)</b>	ClCH <sub>2</sub> CHCH <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b>	CLM-8008-1.2	<b>Hexachlorophene (<sup>13</sup>C<sub>13</sub>,99%)</b>	*CH <sub>2</sub> [*C <sub>6</sub> H(Cl) <sub>3</sub> OH] <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8009-1.2	<b>Hexachlorophene (unlabeled)</b>	CH <sub>2</sub> [C <sub>6</sub> H(Cl) <sub>3</sub> OH] <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	CLM-4745-1.2	<b>4-Hydroxybenzoic acid (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> CH <sub>4</sub> O <sub>3</sub> HO(*C <sub>6</sub> H <sub>4</sub> )CO <sub>2</sub> H	1 mg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8251-1.2	<b>4-Hydroxybenzoic acid (unlabeled)</b>	C <sub>6</sub> CH <sub>4</sub> O <sub>3</sub> HO(C <sub>6</sub> H <sub>4</sub> )CO <sub>2</sub> H	1 mg/mL in Methanol	1.2 mL
	CLM-4694-1.2	<b>Tetrabromobisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> Br <sub>2</sub> H <sub>2</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-8734-1.2	<b>Tetrabromobisphenol A (unlabeled)</b>	(C <sub>6</sub> Cl <sub>2</sub> H <sub>2</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	CLM-8006-1.2	<b>Tetrachlorobisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> C <sub>3</sub> H <sub>2</sub> Cl <sub>4</sub> O <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	ULM-7606-1.2	<b>Tetrachlorobisphenol A (unlabeled)</b>	C <sub>12</sub> C <sub>3</sub> H <sub>2</sub> Cl <sub>4</sub> O <sub>2</sub>	50 µg/mL in Methanol	1.2 mL
<b>NEW</b>	DLM-7136-1.2	<b>Tributyltin chloride (D<sub>27</sub>,98%)</b>	(C <sub>4</sub> D <sub>9</sub> ) <sub>3</sub> ClSn	100 µg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
<b>NEW</b>	ULM-8061-1.2	<b>Tributyltin chloride (unlabeled)</b>	(C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> ClSn	100 µg/mL in Methylene chloride	1.2 mL
	CLM-6185-1.2	<b>1,1,1-Trichloroethane (2-<sup>13</sup>C,99%)</b>	*CCH <sub>3</sub> Cl <sub>3</sub>	100 µg/mL in Methanol	1.2 mL
	DLM-2080-1.2	<b>1,2,3-Trichloropropane (D<sub>5</sub>,98%) (CP: 95%)</b>	CD <sub>2</sub> ClCDCICD <sub>2</sub> Cl	100 µg/mL in Methanol	1.2 mL
	ULM-6911-1.2	<b>1,2,3-Trichloropropane (unlabeled)</b>	CH <sub>2</sub> ClCHClCH <sub>2</sub> Cl	1 mg/mL in Methanol	1.2 mL

## Explosives Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-1519-S	<b>1,3-Dinitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
<b>NEW</b> CLM-1519-0.1	<b>1,3-Dinitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> (NO <sub>2</sub> ) <sub>2</sub>	Neat	0.1 g
ULM-3850-1.2	<b>1,3-Dinitrobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
<b>NEW</b> DLM-299-10	<b>2,4-Dinitrophenol (ring-D<sub>3</sub>,98%) (contains 0.35 mg/mL deuterium oxide)</b>	(NO <sub>2</sub> ) <sub>2</sub> C <sub>6</sub> D <sub>3</sub> OH	1 mg/mL in Methanol-OD	10 mL
DLM-2207-S	<b>2,4-Dinitrotoluene (ring-D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> CH <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
ULM-3888-S	<b>2,4-Dinitrotoluene (unlabeled)</b>	C <sub>6</sub> H <sub>3</sub> CH <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
DLM-1939-S	<b>2,6-Dinitrotoluene (methyl-D<sub>3</sub>,98%)</b>	C <sub>6</sub> H <sub>3</sub> CD <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
ULM-3889-S	<b>2,6-Dinitrotoluene (unlabeled)</b>	C <sub>6</sub> H <sub>3</sub> CH <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
<b>NEW</b> CNLM-7963-S	<b>HMX (<sup>13</sup>C<sub>4</sub>,99%;ring-<sup>15</sup>N<sub>4</sub>,98%)</b>	*C <sub>4</sub> H <sub>8</sub> N <sub>4</sub> *N <sub>4</sub> O <sub>8</sub>	1 mg/mL in Acetonitrile	1 mL
<b>NEW</b> ULM-7969-1	<b>HMX (unlabeled)</b>	C <sub>4</sub> H <sub>8</sub> N <sub>4</sub> O <sub>8</sub>	1 mg/mL in Acetonitrile	1 mL
ULM-3892-1.2	<b>Nitrobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
ULM-3893-S	<b>Nitroglycerin (Trinitroglycerol) (unlabeled)</b>	C <sub>3</sub> H <sub>5</sub> (NO <sub>3</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1 mL
CLM-3912-S	<b>2-Nitrotoluene (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> CH <sub>3</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
ULM-3890-1.2	<b>2-Nitrotoluene (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> CH <sub>3</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
CLM-3913-S	<b>4-Nitrotoluene (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> CH <sub>3</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
ULM-3891-1.2	<b>4-Nitrotoluene (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> CH <sub>3</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CNLM-7987-S	<b>RDX (<sup>13</sup>C<sub>3</sub>,99%;<sup>15</sup>N<sub>3</sub>,98%)</b>	*C <sub>3</sub> H <sub>6</sub> N <sub>3</sub> (*NO <sub>2</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1 mL
CLM-3846-S	<b>RDX (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>6</sub> N <sub>3</sub> (NO <sub>2</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1.2 mL
ULM-3847-S	<b>RDX (unlabeled)</b>	C <sub>3</sub> H <sub>6</sub> N <sub>3</sub> (NO <sub>2</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1.2 mL
CLM-3848-S	<b>1,3,5-Trinitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>3</sub> (NO <sub>2</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1.2 mL
ULM-3849-1.2	<b>1,3,5-Trinitrobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>3</sub> (NO <sub>2</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1.2 mL
CNLM-3643-S	<b>2,4,6-Trinitrotoluene (TNT) (<sup>13</sup>C<sub>7</sub>,99%;<sup>15</sup>N<sub>3</sub>,98%)</b>	*C <sub>7</sub> H <sub>5</sub> (*NO <sub>2</sub> ) <sub>3</sub>	(1 mg/mL in Benzene; wetted with H <sub>2</sub> O 33% by weight)	1.2 mL
ULM-3845-S	<b>2,4,6-Trinitrotoluene (TNT) (unlabeled)</b>	C <sub>7</sub> H <sub>5</sub> (NO <sub>2</sub> ) <sub>3</sub>	1 mg/mL in Acetonitrile	1.2 mL

Note: Shipping restrictions on explosive compounds may inhibit CIL's ability to provide these standards, especially outside of the US. Please contact CIL to confirm availability of these explosive standards.

## Individual *n*-Alkane Standards

Catalog #	Compound	Formula	Amount
DLM-1213-1	<b><i>n</i>-Pentane (D<sub>12</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>3</sub> CD <sub>3</sub>	1 g
DLM-1213-5	<b><i>n</i>-Pentane (D<sub>12</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>3</sub> CD <sub>3</sub>	5 g
DLM-139-1	<b><i>n</i>-Hexane (D<sub>14</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>4</sub> CD <sub>3</sub>	1 g
DLM-139-5	<b><i>n</i>-Hexane (D<sub>14</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>4</sub> CD <sub>3</sub>	5 g
DLM-423-1	<b><i>n</i>-Heptane (D<sub>16</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>5</sub> CD <sub>3</sub>	1 g
DLM-423-5	<b><i>n</i>-Heptane (D<sub>16</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>5</sub> CD <sub>3</sub>	5 g
DLM-50-1	<b><i>n</i>-Octane (D<sub>18</sub>, 99%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>6</sub> CD <sub>3</sub>	1 g
DLM-50-5	<b><i>n</i>-Octane (D<sub>18</sub>, 99%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>6</sub> CD <sub>3</sub>	5 g
DLM-2438-1	<b><i>n</i>-Nonane (D<sub>20</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>7</sub> CD <sub>3</sub>	1 g
DLM-2438-5	<b><i>n</i>-Nonane (D<sub>20</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>7</sub> CD <sub>3</sub>	5 g
DLM-133-1	<b><i>n</i>-Decane (D<sub>22</sub>, 99%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>8</sub> CD <sub>3</sub>	1 g
DLM-133-5	<b><i>n</i>-Decane (D<sub>22</sub>, 99%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>8</sub> CD <sub>3</sub>	5 g
DLM-338-1	<b><i>n</i>-Dodecane (D<sub>26</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>10</sub> CD <sub>3</sub>	1 g
DLM-338-5	<b><i>n</i>-Dodecane (D<sub>26</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>10</sub> CD <sub>3</sub>	5 g
DLM-1354-0.5	<b><i>n</i>-Tridecane (D<sub>28</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>11</sub> CD <sub>3</sub>	0.5 g
DLM-670-1	<b><i>n</i>-Tetradecane (D<sub>30</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>12</sub> CD <sub>3</sub>	1 g
DLM-670-5	<b><i>n</i>-Tetradecane (D<sub>30</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>12</sub> CD <sub>3</sub>	5 g
DLM-1283-1	<b><i>n</i>-Pentadecane (D<sub>32</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>13</sub> CD <sub>3</sub>	1 g
DLM-1283-5	<b><i>n</i>-Pentadecane (D<sub>32</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>13</sub> CD <sub>3</sub>	5 g
DLM-203-0.1	<b><i>n</i>-Hexadecane (D<sub>34</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>14</sub> CD <sub>3</sub>	0.1 g
DLM-203-5	<b><i>n</i>-Hexadecane (D<sub>34</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>14</sub> CD <sub>3</sub>	5 g
DLM-1342-5	<b><i>n</i>-Heptadecane (D<sub>36</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>15</sub> CD <sub>3</sub>	5 g
DLM-1346-0.1	<b><i>n</i>-Nonadecane (D<sub>40</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>17</sub> CD <sub>3</sub>	0.1 g
DLM-1346-1	<b><i>n</i>-Nonadecane (D<sub>40</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>17</sub> CD <sub>3</sub>	1 g
DLM-2208-0.5	<b><i>n</i>-Eicosane (D<sub>42</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>18</sub> CD <sub>3</sub>	0.5 g
DLM-2208-1	<b><i>n</i>-Eicosane (D<sub>42</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>18</sub> CD <sub>3</sub>	1 g
DLM-3336-1	<b><i>n</i>-Tricosane (D<sub>48</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>21</sub> CD <sub>3</sub>	1 g
DLM-2209-0.5	<b><i>n</i>-Tetracosane (D<sub>50</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>22</sub> CD <sub>3</sub>	0.5 g
DLM-2210-0.5	<b><i>n</i>-triacontane (D<sub>62</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>28</sub> CD <sub>3</sub>	0.5 g
DLM-2724-1	<b><i>n</i>-Dotriacontane (D<sub>66</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>30</sub> CD <sub>3</sub>	1 g
DLM-2634-1	<b><i>n</i>-Hexatriacontane (D<sub>74</sub>, 98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>34</sub> CD <sub>3</sub>	1 g

Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-1643-1.2	<b>Acenaphthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7413-1.2	<b>Acenaphthene (unlabeled)</b>	C <sub>12</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
CLM-2477-1.2	<b>Acenaphthylene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7422-1.2	<b>Acenaphthylene (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
DLM-9-10	<b>Acetone (D<sub>6</sub>,99.9%)</b>	CD <sub>3</sub> COCD <sub>3</sub>	Neat	10 g
CLM-856-0.1	<b>Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) (<sup>13</sup>C<sub>3</sub>,99%)</b>	H <sub>2</sub> *C=C*CH*CN	Neat	0.1 g
DLM-820-1	<b>Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) (D<sub>3</sub>,98%)</b>	D <sub>2</sub> C=CDCN	Neat	1 g
DLM-820-5	<b>Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) (D<sub>3</sub>,98%)</b>	D <sub>2</sub> C=CDCN	Neat	5 g
CLM-4725-1.2	<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7441-1.2	<b>Aldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
DLM-2030-1.2	<b>2-Aminonaphthalene (ring-D<sub>7</sub>,98%)</b>	C <sub>10</sub> D <sub>7</sub> NH <sub>2</sub>	1 mg/mL in Benzene	1.2 mL
<b>NEW</b> DLM-7658	<b>1-Amino-2-propanol (D<sub>9</sub>,98%)</b>	C <sub>3</sub> D <sub>9</sub> NO	Neat	
CLM-714-0.1	<b>Aniline (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>	Neat	0.1 g
CLM-714-0.25	<b>Aniline (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>	Neat	0.25 g
DLM-862-1	<b>Aniline (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> NH <sub>2</sub>	Neat	1 g
DLM-862-5	<b>Aniline (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> NH <sub>2</sub>	Neat	5 g
DLM-106-5	<b>Aniline (D<sub>7</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> ND <sub>2</sub>	Neat	5 g
CLM-1333-1.2	<b>Anthracene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>8</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7412-1.2	<b>Anthracene (unlabeled)</b>	C <sub>14</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3602-1.2	<b>Benz[a]anthracene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2415-I-1.2	<b>Benz[a]anthracene (unlabeled)</b>	C <sub>18</sub> H <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-182-0.1	<b>Benzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub>	Neat	0.1 g
CLM-182-0.5	<b>Benzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub>	Neat	0.5 g
DLM-1101-5	<b>Benzene (D<sub>1</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> D	Neat	5 g
DLM-256	<b>Benzene (D<sub>5</sub>,98%)</b>	C <sub>6</sub> HD <sub>5</sub>	Neat	
DLM-1-5	<b>Benzene (D<sub>6</sub>,99.5%)</b>	C <sub>6</sub> D <sub>6</sub>	Neat	5 g
CDLM-629-0.1	<b>Benzene (<sup>13</sup>C<sub>6</sub>,99%;D<sub>6</sub>,98%)</b>	*C <sub>6</sub> D <sub>6</sub>	Neat	0.1 g
DLM-1338-1.2	<b>Benzidine (ring-D<sub>8</sub>,98%)</b>	C <sub>12</sub> D <sub>8</sub> (NH <sub>2</sub> ) <sub>2</sub>	100 µg/mL in Toluene	1.2 mL
DLM-122-1	<b>Benzoic acid (ring-D<sub>5</sub>,98%)</b>	C <sub>8</sub> D <sub>5</sub> CO <sub>2</sub> H	Neat	1 g
DLM-122-5	<b>Benzoic acid (ring-D<sub>5</sub>,98%)</b>	C <sub>8</sub> D <sub>5</sub> CO <sub>2</sub> H	Neat	5 g
CLM-2722-1.2	<b>Benzo[a]pyrene (<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>4</sub> C <sub>16</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8717-1.2	<b>Benzo[a]pyrene (unlabeled)</b>	C <sub>20</sub> H <sub>12</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3599-1.2	<b>Benzo[b]fluoranthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>14</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3756-1.2	<b>Benzo[k]fluoranthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>14</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1364-1.2	<b>Benzo[g,h,i]perylene (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> C <sub>10</sub> H <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2418-1.2	<b>Benzo[g,h,i]perylene (unlabeled)</b>	C <sub>22</sub> H <sub>12</sub>	200 µg/mL in Toluene	1.2 mL
DLM-1663-1	<b>1,4-Benzoquinone (D<sub>4</sub>,98%)</b>	O(C <sub>6</sub> D <sub>4</sub> )O	Neat	1 g
DLM-1369-1.2	<b>Benzyl butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1-[CO <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ]-2-[CO <sub>2</sub> - <i>n</i> -C <sub>4</sub> H <sub>9</sub> ]	100 µg/mL in Nonane	1.2 mL
DLM-1369-0.1	<b>Benzyl butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1-[CO <sub>2</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub> ]-2-[CO <sub>2</sub> - <i>n</i> -C <sub>4</sub> H <sub>9</sub> ]	Neat	0.1 g
CLM-2482-1.2	<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7232-1.2	<b>α-BHC (α-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3623-1.2	<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	50 µg/mL in Nonane	2 x 1.2 mL
ULM-6132-1.2	<b>β-BHC (β-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	50 µg/mL in Nonane	2 x 1.2 mL
ULM-6132-SM-1.2	<b>β-BHC (β-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Methanol	1.2 mL
CDLM-624-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%;D<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1282-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6133-1.2	<b>γ-BHC (γ-HCH) (Lindane) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6133-SM-1.2	<b>γ-BHC (γ-HCH) (Lindane) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Methanol	1.2 mL
CLM-3648-1.2	<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7233-1.2	<b>δ-BHC (δ-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL

## Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-3235-1.2	<b>Biphenyl (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-494-1	<b>Biphenyl (D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub>	Neat	1 g
DLM-494-5	<b>Biphenyl (D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub>	Neat	5 g
ULM-1710-1.2	<b>Biphenyl (unlabeled)</b>	C <sub>12</sub> H <sub>10</sub>	50 µg/mL in Nonane	1.2 mL
ULM-1710-0.5	<b>Biphenyl (unlabeled)</b>	C <sub>12</sub> H <sub>10</sub>	Neat	0.5 g
DLM-1945-0.1	<b>Bis(2-chloroethoxy) methane (chloroethoxy-D<sub>8</sub>,98%)</b>	CH <sub>2</sub> (OCD <sub>2</sub> CD <sub>2</sub> Cl) <sub>2</sub>	Neat	0.1 g
DLM-2004-0.05	<b>Bis(2-chloroethyl) ether (D<sub>8</sub>,98%)</b>	C <sub>10</sub> D <sub>8</sub> Cl <sub>2</sub>	Neat	0.05 g
DLM-2004-0.1	<b>Bis(2-chloroethyl) ether (D<sub>8</sub>,98%)</b>	C <sub>10</sub> D <sub>8</sub> Cl <sub>2</sub>	Neat	0.1 g
<b>NEW</b> DLM-2138	<b>Bis(2-chloroisopropyl) ether (D<sub>12</sub>,95%)</b>	C <sub>6</sub> D <sub>12</sub> C <sub>12</sub> O		Inquire
<b>NEW</b> ULM-3693	<b>Bis(2-chloroisopropyl) ether (unlabeled)</b>	C <sub>6</sub> H <sub>12</sub> C <sub>12</sub> O		Inquire
CLM-4325-1.2	<b>Bisphenol A (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	*(C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
ULM-7106-1.2	<b>Bisphenol A (unlabeled)</b>	(C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8654-1.2	<b>2,4'-Bisphenol A (2-(2-hydroxyphenyl)-2-(4-hydroxyphenyl) propane) (unlabeled)</b>	(C <sub>6</sub> H <sub>4</sub> OH) <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
DLM-1368-1.2	<b>Bis(2-ethylhexyl) phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1368-0.1	<b>Bis(2-ethylhexyl) phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	Neat	0.1 g
DLM-1368-0.25	<b>Bis(2-ethylhexyl) phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> [CO <sub>2</sub> CH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	Neat	0.25 g
CLM-871-0.5	<b>Bromobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> Br	Neat	0.5 g
DLM-398-5	<b>Bromobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> Br	Neat	5 g
DLM-398-10	<b>Bromobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> Br	Neat	10 g
DLM-398-25	<b>Bromobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> Br	Neat	25 g
DLM-872-0.1	<b>Bromochloromethane (D<sub>2</sub>,98%)</b>	CD <sub>2</sub> ClBr	Neat	0.1 g
CLM-2090-1	<b>Bromodichloromethane (<sup>13</sup>C,99%) (stabilized with K<sub>2</sub>CO<sub>3</sub>)</b>	Br*CHCl <sub>2</sub>	Neat	1 g
ULM-8480	<b>Bromodichloromethane (unlabeled)</b>	BrCHCl <sub>2</sub>		Inquire
DLM-874-10	<b>Bromoethane (D<sub>5</sub>,98%)</b>	CD <sub>3</sub> CD <sub>2</sub> Br	Neat	10 g
DLM-103-1	<b>2-Bromoethanol (1,1,2,2-D<sub>4</sub>,98%) (CP: 95%+)</b>	BrCD <sub>2</sub> CD <sub>2</sub> OH	Neat	1 g
DLM-103-5	<b>2-Bromoethanol (1,1,2,2-D<sub>4</sub>,98%) (CP: 95%+)</b>	BrCD <sub>2</sub> CD <sub>2</sub> OH	Neat	5 g
CLM-726-0.1	<b>Bromoform (stabilized with copper wire) (<sup>13</sup>C,99%)</b>	*CHBr <sub>3</sub>	Neat	0.1 g
CLM-726-0.5	<b>Bromoform (stabilized with copper wire) (<sup>13</sup>C,99%)</b>	*CHBr <sub>3</sub>	Neat	0.5 g
DLM-400-10	<b>Bromoform (stabilized with copper wire) (D,99.5%)</b>	CDBr <sub>3</sub>	Neat	10 g
DLM-400-25	<b>Bromoform (stabilized with copper wire) (D,99.5%)</b>	CDBr <sub>3</sub>	Neat	25 g
CLM-1217-1	<b>Bromomethane (<sup>13</sup>C,99%) **</b>	*CH <sub>3</sub> Br	Neat	1 L
DLM-401-5	<b>Bromomethane (D<sub>3</sub>,99%) **</b>	CD <sub>3</sub> Br	Neat	5 g
EO-4999	<b>4-MonoBDE (<sup>13</sup>C<sub>12</sub>,99%) (BDE-3)</b>	*C <sub>12</sub> H <sub>9</sub> BrO	50 µg/mL in Nonane	1.2 mL
DLM-1947-0.1	<b>4-Bromophenyl phenyl ether (phenyl-D<sub>5</sub>,98%) (BDE-3)</b>	BrC <sub>6</sub> H <sub>4</sub> OC <sub>6</sub> D <sub>5</sub>	Neat	0.1 g
BDE-3-CS	<b>4-MonoBDE (unlabeled) (BDE-3)</b>	C <sub>12</sub> H <sub>9</sub> BrO	50 µg/mL in Nonane	1.2 mL
DLM-1910-0.1	<b>2-Butanone (Methyl ethyl ketone; MEK) (4,4,4-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> CH <sub>2</sub> COCH <sub>3</sub>	Neat	0.1 g
DLM-1910-1	<b>2-Butanone (Methyl ethyl ketone; MEK) (4,4,4-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> CH <sub>2</sub> COCH <sub>3</sub>	Neat	1 g
DLM-663-0.1	<b>2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D<sub>5</sub>,98%)</b>	CH <sub>3</sub> CD <sub>2</sub> COCD <sub>3</sub>	Neat	0.1 g
DLM-663-1	<b>2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D<sub>5</sub>,98%)</b>	CH <sub>3</sub> CD <sub>2</sub> COCD <sub>3</sub>	Neat	1 g
DLM-663-5	<b>2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D<sub>5</sub>,98%)</b>	CH <sub>3</sub> CD <sub>2</sub> COCD <sub>3</sub>	Neat	5 g

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Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-2134-0.1	<b>Carbazole (D<sub>8</sub>,98%)</b>	C <sub>12</sub> D <sub>8</sub> NH	Neat	0.1 g
CLM-731-0.1	<b>Carbon tetrachloride (<sup>13</sup>C,99%)</b>	*CCl <sub>4</sub>	Neat	0.1 g
CLM-731-0.5	<b>Carbon tetrachloride (<sup>13</sup>C,99%)</b>	*CCl <sub>4</sub>	Neat	0.5 g
CLM-731-1	<b>Carbon tetrachloride (<sup>13</sup>C,99%)</b>	*CCl <sub>4</sub>	Neat	1 g
CLM-1520-1	<b>Catechol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	Neat	1 mg
DLM-1912-5	<b>Catechol (D<sub>6</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (OD) <sub>2</sub>	Neat	5 g
DLM-263-1	<b>Chlorobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> Cl	Neat	1 g
DLM-263-5	<b>Chlorobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> Cl	Neat	5 g
CLM-2284-1	<b>4-Chlorocatechol (<sup>13</sup>C<sub>6</sub>,99%)</b>	Cl*C <sub>6</sub> H <sub>3</sub> (OH) <sub>2</sub>	Neat	1 mg
ULM-1701-0.1	<b>4-Chlorocatechol (unlabeled) (CP: 90-95%)</b>	ClC <sub>6</sub> H <sub>3</sub> (OH) <sub>2</sub>	Neat	0.1 g
<b>NEW</b> CLM-8087-1.2	<b>cis-Chlordane (α) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2419-25	<b>cis-Chlordane (α) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
CLM-4792-1.2	<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2420-25	<b>trans-Chlordane (γ) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
CLM-2091	<b>Chlorodibromomethane (<sup>13</sup>C,99%)</b>	Br <sub>2</sub> *CHCl		Inquire
DLM-1171-5	<b>Chloroethane (D<sub>5</sub>,98%) **</b>	CD <sub>3</sub> CD <sub>2</sub> Cl	Neat	5 g
DLM-1928-0.5	<b>2-Chloroethanol (1,1,2,2-D<sub>4</sub>,98%)</b>	ClCD <sub>2</sub> CD <sub>2</sub> OH	Neat	0.5 g
CLM-262-0.1	<b>Chloroform (<sup>13</sup>C,99%)</b>	*CHCl <sub>3</sub>	Neat	0.1 g
CLM-262-0.5	<b>Chloroform (<sup>13</sup>C,99%)</b>	*CHCl <sub>3</sub>	Neat	0.5 g
CLM-262-1	<b>Chloroform (<sup>13</sup>C,99%)</b>	*CHCl <sub>3</sub>	Neat	1 g
ULM-1705-0.1	<b>4-Chloroguaiacol (unlabeled) (CP: 85-90%)</b>	ClC <sub>6</sub> H <sub>3</sub> (OH)(OCH <sub>3</sub> )	Neat	0.1 g
DLM-2037-1	<b>Chloriodomethane (stabilized with copper wire) (D<sub>2</sub>,98%)</b>	ClCD <sub>2</sub> I	Neat	1 g
<b>NEW</b> DLM-337-1-BS	<b>Chloromethane (D<sub>3</sub>,99%)</b>	CD <sub>3</sub> Cl	Neat	1 L
<b>NEW</b> DLM-337-1-LB	<b>Chloromethane (D<sub>3</sub>,99%)</b>	CD <sub>3</sub> Cl	Neat	1 L
CLM-339-1	<b>Chloromethane (<sup>13</sup>C,99%)</b>	*CH <sub>3</sub> Cl	Neat	1 L
DLM-2205-0.01	<b>4-Chloro-3-methylphenol (ring-2,6-D<sub>2</sub>,98%)</b>	C <sub>7</sub> D <sub>2</sub> H <sub>4</sub> ClO	Neat	0.01 g
DLM-2205-0.1	<b>4-Chloro-3-methylphenol (ring-2,6-D<sub>2</sub>,98%)</b>	C <sub>7</sub> D <sub>2</sub> H <sub>4</sub> ClO	Neat	0.1 g
DLM-2005-1.2	<b>2-Chloronaphthalene (D<sub>7</sub>,98%)</b>	C <sub>10</sub> D <sub>7</sub> Cl	100 µg/mL in Nonane	1.2 mL
DLM-2005-0.01	<b>2-Chloronaphthalene (D<sub>7</sub>,98%)</b>	C <sub>10</sub> D <sub>7</sub> Cl	Neat	0.01 g
DLM-2005-0.1	<b>2-Chloronaphthalene (D<sub>7</sub>,98%)</b>	C <sub>10</sub> D <sub>7</sub> Cl	Neat	0.1 g
CLM-1559-1	<b>4-Chloronitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> NO <sub>2</sub> Cl	Neat	1 mg
DLM-1638-0.1	<b>2-Chlorophenol (ring-D<sub>4</sub>,99%)</b>	ClC <sub>6</sub> D <sub>4</sub> OH	Neat	0.1 g
DLM-1638-0.25	<b>2-Chlorophenol (ring-D<sub>4</sub>,99%)</b>	ClC <sub>6</sub> D <sub>4</sub> OH	Neat	0.25 g
DLM-1930-0.1	<b>4-Chlorophenyl phenyl ether (phenyl-D<sub>5</sub>,98%)</b>	ClC <sub>6</sub> H <sub>4</sub> OC <sub>6</sub> D <sub>5</sub>	Neat	0.1 g
ULM-2421-0.1	<b>4-Chlorophenyl phenyl ether (unlabeled)</b>	ClC <sub>6</sub> H <sub>4</sub> OC <sub>6</sub> H <sub>5</sub>	Neat	0.1 g
DLM-3014-1	<b>2-Chloropropene (D<sub>5</sub>,98%)</b>	D <sub>3</sub> CCIC=CD <sub>2</sub>	Neat	1 g
DLM-3014-5	<b>2-Chloropropene (D<sub>5</sub>,98%)</b>	D <sub>3</sub> CCIC=CD <sub>2</sub>	Neat	5 g
DLM-3016-5	<b>o-Cresol (D<sub>8</sub>,98%)</b>	D <sub>3</sub> CC <sub>6</sub> D <sub>4</sub> OD	Neat	5 g
DLM-3017-5	<b>p-Cresol (D<sub>8</sub>,98%)</b>	D <sub>3</sub> CC <sub>6</sub> D <sub>4</sub> OD	Neat	5 g
<b>NEW</b> CLM-7341	<b>p-Cresol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>8</sub> O		Inquire
CLM-6999-1.2	<b>2,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%) [(o,p'-Dichlorodiphenyl) dichloroethane]</b>	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	50 µg/mL in Nonane	1.2 mL
ULM-7450-1.2	<b>2,4'-DDD (unlabeled) [(o,p'-Dichlorodiphenyl) dichloroethane]</b>	C <sub>14</sub> H <sub>10</sub> Cl <sub>4</sub>	50 µg/mL in Nonane	1.2 mL
CLM-7100-1.2	<b>4,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%) [(p,p'-Dichlorodiphenyl) dichloroethane]</b>	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
DLM-3533-1.2	<b>4,4'-DDD (ring-D<sub>8</sub>,98%) [(p,p'-Dichlorodiphenyl) dichloroethane]</b>	C <sub>14</sub> D <sub>8</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7216-1.2	<b>4,4'-DDD (unlabeled) [(p,p'-Dichlorodiphenyl) dichloroethane]</b>	C <sub>14</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL

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Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-4693-1.2	<b>2,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> <b>[(<i>o,p'</i>,-Dichlorodiphenyl) dichloroethylene]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6251-1.2	<b>2,4'-DDE (unlabeled)</b> <b>[(<i>o,p'</i>,-Dichlorodiphenyl) dichloroethylene]</b>	C <sub>14</sub> H <sub>8</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1627-1.2	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> <b>[(<i>p,p'</i>,-Dichlorodiphenyl) dichloroethylene]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1627-5	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> <b>[(<i>p,p'</i>,-Dichlorodiphenyl) dichloroethylene]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	Neat	5 mg
ULM-6137-1.2	<b>4,4'-DDE (unlabeled)</b> <b>[(<i>p,p'</i>,-Dichlorodiphenyl) dichloroethylene]</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4692-1.2	<b>2,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> <b>[(<i>o,p'</i>-Dichlorodiphenyl) trichloroethane]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6134-1.2	<b>2,4'-DDT (unlabeled)</b> <b>[(<i>o,p'</i>-Dichlorodiphenyl) trichloroethane]</b>	ClC <sub>6</sub> H <sub>4</sub> CH(CCl <sub>3</sub> )C <sub>6</sub> H <sub>4</sub> Cl	100 µg/mL in Nonane	1.2 mL
CLM-1281-1.2	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> <b>[(<i>p,p'</i>-Dichlorodiphenyl) trichloroethane]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1281-5	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> <b>[(<i>p,p'</i>-Dichlorodiphenyl) trichloroethane]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	Neat	5 mg
ULM-6135-1.2	<b>4,4'-DDT (unlabeled)</b> <b>[(<i>p,p'</i>-Dichlorodiphenyl) trichloroethane]</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1386-1	<b>Decalin (D<sub>18</sub>,99%) (cis/trans mixture)</b>	C <sub>10</sub> D <sub>18</sub>	Neat	1 g
DLM-1386-5	<b>Decalin (D<sub>18</sub>,99%) (cis/trans mixture)</b>	C <sub>10</sub> D <sub>18</sub>	Neat	5 g
DLM-1843-5	<b>trans-Decalin (D<sub>18</sub>,98%)</b>	C <sub>10</sub> D <sub>18</sub>	Neat	5 g
CLM-3598-1.2	<b>Dibenz[<i>a,h</i>]anthracene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>16</sub> H <sub>14</sub>	100 µg/mL in Nonane	1.2 mL
DLM-677-1.2	<b>Dibenz[<i>a,h</i>]anthracene (D<sub>14</sub>,98%)</b>	C <sub>22</sub> D <sub>14</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
DLM-677-0.1	<b>Dibenz[<i>a,h</i>]anthracene (D<sub>14</sub>,98%)</b>	C <sub>22</sub> D <sub>14</sub>	Neat	0.1 g
ULM-2422-1.2	<b>Dibenz[<i>a,h</i>]anthracene (unlabeled)</b>	C <sub>22</sub> H <sub>14</sub>	200 µg/mL in Toluene-D <sub>8</sub>	1.2 mL
ULM-2422-0.1	<b>Dibenz[<i>a,h</i>]anthracene (unlabeled)</b>	C <sub>22</sub> H <sub>14</sub>	Neat	0.1 g
CLM-1544-1.2	<b>Dibenzo-<i>p</i>-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> O <sub>2</sub>	50 µg/mL in Nonane	1.2 mL
ULM-1711-1.2	<b>Dibenzo-<i>p</i>-dioxin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> O <sub>2</sub>	50 µg/mL in Nonane	1.2 mL
ULM-1711-0.01	<b>Dibenzo-<i>p</i>-dioxin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> O <sub>2</sub>	Neat	0.01 g
CLM-1561-1.2	<b>Dibenzofuran (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> O	50 µg/mL in Nonane	1.2 mL
DLM-2276-0.05	<b>Dibenzofuran (D<sub>8</sub>,98%)</b>	C <sub>12</sub> D <sub>8</sub> O	Neat	0.05 g
ULM-1712-1.2	<b>Dibenzofuran (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> O	50 µg/mL in Nonane	1.2 mL
ULM-1712-0.05	<b>Dibenzofuran (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> O	Neat	0.05 g
DLM-2206-0.1	<b>Dibenzothiophene (D<sub>8</sub>,98%)</b>	C <sub>12</sub> D <sub>8</sub> S	Neat	0.1 g
CLM-1340-0.1	<b>1,4-Dibromobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> Br <sub>2</sub>	Neat	0.1 g
DLM-341-5	<b>1,4-Dibromobenzene (D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> Br <sub>2</sub>	Neat	5 g
CLM-483-0.1	<b>1,2-Dibromoethane (<sup>13</sup>C<sub>2</sub>,99%)</b>	Br*CH <sub>2</sub> *CH <sub>2</sub> Br	Neat	0.1 g
CLM-483-1	<b>1,2-Dibromoethane (<sup>13</sup>C<sub>2</sub>,99%)</b>	Br*CH <sub>2</sub> *CH <sub>2</sub> Br	Neat	1 g
DLM-1367-1.2	<b>Di-<i>n</i>-butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-[CO <sub>2</sub> C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1367-0.1	<b>Di-<i>n</i>-butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-[CO <sub>2</sub> C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	Neat	0.1 g
DLM-1367-0.25	<b>Di-<i>n</i>-butyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-[CO <sub>2</sub> C <sub>4</sub> H <sub>9</sub> ] <sub>2</sub>	Neat	0.25 g
CLM-735-1	<b>3,4-Dichloroaniline (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub> NH <sub>2</sub>	Neat	1 mg
DLM-158-1	<b>1,2-Dichlorobenzene (D<sub>4</sub>,99%)</b>	C <sub>6</sub> D <sub>4</sub> Cl <sub>2</sub>	Neat	1 g
DLM-158-5	<b>1,2-Dichlorobenzene (D<sub>4</sub>,99%)</b>	C <sub>6</sub> D <sub>4</sub> Cl <sub>2</sub>	Neat	5 g
CLM-4484-1.2	<b>1,3-Dichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	100 µg/mL in Isooctane	1.2 mL
CLM-1518-1	<b>1,4-Dichlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	Neat	1 mg
DLM-268-5	<b>1,4-Dichlorobenzene (D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> Cl <sub>2</sub>	Neat	5 g
DLM-3022-1.2	<b>3,3'-Dichlorobenzidine (ring-D<sub>6</sub>,98%)</b>	C <sub>12</sub> D <sub>6</sub> H <sub>4</sub> N <sub>2</sub> Cl <sub>2</sub>	1 mg/mL in Benzene	1.2 mL
ULM-1702-0.1	<b>4,5-Dichlorocatechol (unlabeled) (CP: 95-99%)</b>	Cl <sub>2</sub> C <sub>6</sub> H <sub>2</sub> (OH) <sub>2</sub>	Neat	0.1 g



Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-1934-0.1	<b>1,1-Dichloroethane (2,2,2-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> CHCl <sub>2</sub>	Neat	0.1 g
DLM-1934-0.25	<b>1,1-Dichloroethane (2,2,2-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> CHCl <sub>2</sub>	Neat	0.25 g
DLM-18-1	<b>1,2-Dichloroethane (D<sub>4</sub>,99%)</b>	CICD <sub>2</sub> CD <sub>2</sub> Cl	Neat	1 g
DLM-18-5	<b>1,2-Dichloroethane (D<sub>4</sub>,99%)</b>	CICD <sub>2</sub> CD <sub>2</sub> Cl	Neat	5 g
DLM-1935-0.1	<b>1,1-Dichloroethylene (inhibited with hydroquinone) (2,2-D<sub>2</sub>,98%)</b>	CD <sub>2</sub> =CCl <sub>2</sub>	Neat	0.1 g
DLM-1935-1	<b>1,1-Dichloroethylene (inhibited with hydroquinone) (2,2-D<sub>2</sub>,98%)</b>	CD <sub>2</sub> =CCl <sub>2</sub>	Neat	1 g
DLM-1936-0.1	<b>1,2-Dichloroethylene (cis/trans mixture) (1,2-D<sub>2</sub>,98%)</b>	CICD=CDCl	Neat	0.1 g
DLM-1936-1	<b>1,2-Dichloroethylene (cis/trans mixture) (1,2-D<sub>2</sub>,98%)</b>	CICD=CDCl	Neat	1 g
DLM-1359-0.1	<b>2,4-Dichlorophenol (ring-D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>2</sub> OH	Neat	0.1 g
DLM-1669-0.1	<b>2,4-Dichlorophenol (D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>2</sub> OD	Neat	0.1 g
DLM-1937-0.1	<b>1,2-Dichloropropane (D<sub>6</sub>,98%)</b>	CICD <sub>2</sub> CDClCD <sub>3</sub>	Neat	0.1 g
NEW DLM-1937-0.25	<b>1,2-Dichloropropane (D<sub>6</sub>,98%)</b>	CD <sub>3</sub> CD(Cl)CD <sub>2</sub> Cl	Neat	0.25 g
NEW DLM-2112-1.2	<b>1,3-Dichloro-2-propanol (D<sub>5</sub>,98%)</b>	CICD <sub>2</sub> CD(OH)CD <sub>2</sub> Cl	1 mg/mL in Methanol	1.2 mL
NEW ULM-8092-1.2	<b>1,3-Dichloro-2-propanol (unlabeled)</b>	CICH <sub>2</sub> CH(OH)CH <sub>2</sub> Cl	1 mg/mL in Methanol	1.2 mL
DLM-1938-0.1	<b>1,3-Dichloropropene (cis/trans mixture) (D<sub>4</sub>,98%)</b>	CICD <sub>2</sub> CD=CDCl	Neat	0.1 g
ULM-1700-0.1	<b>5,6-Dichlorovanillin (unlabeled)</b>	Cl <sub>2</sub> C <sub>6</sub> H(CHO)(OH)(OCH <sub>3</sub> )	Neat	0.1 g
CLM-4726-1.2	<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7230-1.2	<b>Dieldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
DLM-1592-1	<b>Diethyl ether (D<sub>10</sub>,99%)</b>	O(CD <sub>3</sub> CD <sub>2</sub> ) <sub>2</sub>	Neat	1 g
DLM-1592-5	<b>Diethyl ether (D<sub>10</sub>,99%)</b>	O(CD <sub>3</sub> CD <sub>2</sub> ) <sub>2</sub>	Neat	5 g
DLM-1629-1.2	<b>Diethyl phthalate (ring-D<sub>4</sub>,99%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1629-0.1	<b>Diethyl phthalate (ring-D<sub>4</sub>,99%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	Neat	0.1 g
DLM-1629-0.25	<b>Diethyl phthalate (ring-D<sub>4</sub>,99%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	Neat	0.25 g
CLM-1006-0.5	<b>Diiodomethane (stabilized with copper wire) (<sup>13</sup>C,99%)</b>	*CH <sub>2</sub> I <sub>2</sub>	Neat	0.5 g
DLM-3190-1	<b>N,N-Dimethylaniline (D<sub>11</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> N(CD <sub>3</sub> ) <sub>2</sub>	Neat	1 g
CLM-503-0.5	<b>N,N-Dimethylformamide (carbonyl-<sup>13</sup>C,99%)</b>	H*CON(CH <sub>3</sub> ) <sub>2</sub>	Neat	0.5 g
CLM-503-1	<b>N,N-Dimethylformamide (carbonyl-<sup>13</sup>C,99%)</b>	H*CON(CH <sub>3</sub> ) <sub>2</sub>	Neat	1 g
DLM-3073-0.1	<b>2,4-Dimethylphenol (ring-D<sub>3</sub>,98%)</b>	(CH <sub>3</sub> ) <sub>2</sub> C <sub>6</sub> D <sub>3</sub> OH	Neat	0.1 g
DLM-3073-0.25	<b>2,4-Dimethylphenol (ring-D<sub>3</sub>,98%)</b>	(CH <sub>3</sub> ) <sub>2</sub> C <sub>6</sub> D <sub>3</sub> OH	Neat	0.25 g
DLM-1366-1.2	<b>Dimethyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-(CO <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1366-0.1	<b>Dimethyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-(CO <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	Neat	0.1 g
DLM-3024-5	<b>1,3-Dinitrobenzene (D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> N <sub>2</sub> O <sub>4</sub>	Neat	5 g
DLM-3173-0.1	<b>4,6-Dinitro-2-methylphenol (ring-D<sub>2</sub>,98%)</b>	CH <sub>3</sub> C <sub>6</sub> D <sub>2</sub> (NO <sub>2</sub> ) <sub>2</sub> OH	Neat	0.1 g
NEW DLM-299-10	<b>2,4-Dinitrophenol (ring-D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub> OH	1 mg/mL in Methanol-OD	10 mL
DLM-2207-5	<b>2,4-Dinitrotoluene (ring-D<sub>3</sub>,98%)</b>	H <sub>3</sub> CC <sub>6</sub> D <sub>3</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
DLM-1939-5	<b>2,6-Dinitrotoluene (methyl-D<sub>3</sub>,98%)</b>	D <sub>3</sub> CC <sub>6</sub> H <sub>5</sub> (NO <sub>2</sub> ) <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
DLM-1630-1.2	<b>Di-n-octyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-[CO <sub>2</sub> C <sub>8</sub> H <sub>17</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1630-0.1	<b>Di-n-octyl phthalate (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> -1,2-[CO <sub>2</sub> C <sub>8</sub> H <sub>17</sub> ] <sub>2</sub>	Neat	0.1 g
ULM-6129-1.2	<b>Di-n-octyl phthalate (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> [CO <sub>2</sub> (CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub> ] <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
NEW DLM-28-SM-1.2	<b>1,4-Dioxane (p-Dioxane) (D<sub>8</sub>,99%)</b>	C <sub>4</sub> D <sub>8</sub> O <sub>2</sub>	1 mg/mL in Methanol	1.2 mL
DLM-28-5	<b>1,4-Dioxane (p-Dioxane) (D<sub>8</sub>,99%)</b>	C <sub>4</sub> D <sub>8</sub> O <sub>2</sub>	Neat	5 g
NEW ULM-7840-1.2	<b>1,4-Dioxane (p-Dioxane) (unlabeled)</b>	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1 mg/mL in Methanol	1.2 mL
DLM-2133-0.1	<b>Diphenylamine (diphenyl-D<sub>10</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> NHC <sub>6</sub> D <sub>5</sub>	Neat	0.1 g
CLM-1587-1.2	<b>Diphenyl ether (<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> O	50 µg/mL in Nonane	1.2 mL
DLM-2211-0.1	<b>Diphenyl ether (D<sub>10</sub>,98%)</b>	(C <sub>6</sub> D <sub>5</sub> ) <sub>2</sub> O	Neat	0.1 g
DLM-3026-0.05	<b>1,2-Diphenylhydrazine (diphenyl-D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub> H <sub>5</sub> N <sub>2</sub>	Neat	0.05 g
DLM-3026-0.1	<b>1,2-Diphenylhydrazine (diphenyl-D<sub>10</sub>,98%)</b>	C <sub>12</sub> D <sub>10</sub> H <sub>5</sub> N <sub>2</sub>	Neat	0.1 g

## Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-2943-1.2	<b>2,6-Di(<i>tert</i>-butyl)-4-methyl-phenol (BHT) (D<sub>21</sub>,98%)</b>	[(CD <sub>3</sub> ) <sub>3</sub> C] <sub>2</sub> C <sub>6</sub> D <sub>2</sub> (CH <sub>3</sub> )OH	100 µg/mL in Nonane	1.2 mL
DLM-411-5	<b>Durene (1,2,4,5-Tetramethylbenzene) (D<sub>14</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> (CD <sub>3</sub> ) <sub>4</sub>	Neat	5 g
CLM-6025-1.2	<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
DLM-2862-1.2	<b>Endosulfan I (D<sub>4</sub>,97%)</b>	C <sub>9</sub> D <sub>4</sub> H <sub>2</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7447-1.2	<b>Endosulfan I (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-6026-1.2	<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7448-1.2	<b>Endosulfan II (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7531-1.2	<b>Endosulfan sulfate (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7990-1.2	<b>Endosulfan sulfate (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-4782-1.2	<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7444-1.2	<b>Endrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4815-50	<b>Endrin aldehyde (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-3374-1.2	<b>Epichlorohydrin (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>5</sub> ClO	100 µg/mL in Acetonitrile	1.2 mL
DLM-1008-1	<b>Epichlorohydrin (D<sub>5</sub>,98%)</b>	ClCD <sub>2</sub> CD <sub>2</sub> O	Neat	1 g
ULM-7403-1.2	<b>Epichlorohydrin (unlabeled)</b>	ClCH <sub>2</sub> CHCH <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
DLM-686-5	<b>Ethylbenzene (ethyl-D<sub>5</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> CD <sub>2</sub> CD <sub>3</sub>	Neat	5 g
DLM-199-10	<b>Ethylbenzene (D<sub>10</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> CD <sub>2</sub> CD <sub>3</sub>	Neat	10 g
<b>NEW</b> DLM-4304-10	<b>Ethylbenzene (D<sub>10</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> CD <sub>2</sub> CD <sub>3</sub>	Neat	10 g
CLM-473-0.1	<b>Ethylene oxide (<sup>13</sup>C<sub>2</sub>,99%) ** (airfreight forbidden)</b>	*CH <sub>2</sub> *CH <sub>2</sub> O	Neat	0.1 g
CLM-473-0.5	<b>Ethylene oxide (<sup>13</sup>C<sub>2</sub>,99%) ** (airfreight forbidden)</b>	*CH <sub>2</sub> *CH <sub>2</sub> O	Neat	0.5 g
DLM-271-5	<b>Ethylene oxide (D<sub>4</sub>,99%) ** (airfreight forbidden)</b>	CD <sub>2</sub> CD <sub>2</sub> O	Neat	5 g
CLM-3597-1.2	<b>Fluoranthene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>10</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-2140-1.2	<b>Fluoranthene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-2140-0.1	<b>Fluoranthene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	Neat	0.1 g
ULM-7421-1.2	<b>Fluoranthene (unlabeled)</b>	C <sub>16</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-3596-1.2	<b>Fluorene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>7</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1123-1.2	<b>Fluorene (D<sub>10</sub>,98%)</b>	C <sub>13</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-1123-0.1	<b>Fluorene (D<sub>10</sub>,98%)</b>	C <sub>13</sub> D <sub>10</sub>	Neat	0.1 g
DLM-1123-1	<b>Fluorene (D<sub>10</sub>,98%)</b>	C <sub>13</sub> D <sub>10</sub>	Neat	1 g
ULM-7414-1.2	<b>Fluorene (unlabeled)</b>	C <sub>13</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-810-1	<b>Guaiacol (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	CH <sub>3</sub> O*C <sub>6</sub> H <sub>4</sub> OH	Neat	1 mg
CLM-4759-1.2	<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-1.2	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-0.1	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	Neat	0.1 g
CLM-4734-1.2	<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-1.2	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-0.1	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	Neat	0.1 g
<b>NEW</b> ULM-7869-1.2	<b>trans-Heptachlor epoxide (A isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-351-1.2	<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-351-0.01	<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>6</sub>	Neat	0.01 g
ULM-6130-1.2	<b>Hexachlorobenzene (unlabeled)</b>	C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-2145-1.2	<b>Hexachloro-1,3-butadiene (<sup>13</sup>C<sub>4</sub>,99%)</b>	*CCl <sub>2</sub> =*CCl*CCl=*CCl <sub>2</sub>	100 µg/mL in Isooctane	1.2 mL
CLM-2145-0.01	<b>Hexachloro-1,3-butadiene (<sup>13</sup>C<sub>4</sub>,99%)</b>	*CCl <sub>2</sub> =*CCl*CCl=*CCl <sub>2</sub>	Neat	0.01 g
CLM-2110-5	<b>Hexachlorocyclopentadiene (<sup>13</sup>C<sub>4</sub>,99%)</b>	C <sub>5</sub> Cl <sub>6</sub>	Neat	5 mg
CLM-2110-10	<b>Hexachlorocyclopentadiene (<sup>13</sup>C<sub>4</sub>,99%)</b>	C <sub>5</sub> Cl <sub>6</sub>	Neat	10 mg

\*\*Gases require a Breakseal Flask or Cylinder and Valve at an additional charge. Breakseal Flasks are only available for certain gases at atmospheric pressure.

## Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-2003-0.1	<b>Hexachloroethane (1-<sup>13</sup>C,99%)</b>	CCl <sub>3</sub> *CCl <sub>3</sub>	Neat	0.1 g
CLM-2003-0.5	<b>Hexachloroethane (1-<sup>13</sup>C,99%)</b>	CCl <sub>3</sub> *CCl <sub>3</sub>	Neat	0.5 g
ULM-6074-60	<b>1,2,4,5,7,8-Hexachloroxanthene (unlabeled)</b>	C <sub>13</sub> H <sub>4</sub> Cl <sub>6</sub> O	Neat	60 µg
DLM-277-0.1	<b>Hexanoic acid (D<sub>11</sub>,98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>4</sub> CO <sub>2</sub> H	Neat	0.1 g
DLM-277-1	<b>Hexanoic acid (D<sub>11</sub>,98%)</b>	CD <sub>3</sub> (CD <sub>2</sub> ) <sub>4</sub> CO <sub>2</sub> H	Neat	1 g
DLM-1522-1	<b>Hydroquinone (ring-D<sub>4</sub>,98%)</b>	HOC <sub>6</sub> D <sub>4</sub> OH	Neat	1 g
<b>NEW</b> ULM-2-4X25	<b>Isooctane (unlabeled)</b>	(CH <sub>3</sub> ) <sub>3</sub> CCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>	Neat	4 x 25 mL
DLM-1943-0.1	<b>Isophorone (3-methyl-D<sub>3</sub>;2,4,4,6,6-D<sub>5</sub>,98%)</b>	CD <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub> CD <sub>2</sub> C(CD <sub>3</sub> )=CDO	Neat	0.1 g
<b>NEW</b> CLM-7864-1.2	<b>Leucomalachite Green (phenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> CH[C <sub>6</sub> H <sub>4</sub> N(CH <sub>3</sub> ) <sub>2</sub> ]	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7870-1.2	<b>Leucomalachite Green (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> CH[C <sub>6</sub> H <sub>4</sub> N(CH <sub>3</sub> ) <sub>2</sub> ]	100 µg/mL in Acetonitrile	1.2 mL
DLM-24-5	<b>Methanol (D<sub>4</sub>,99.8%)</b>	CD <sub>3</sub> OD	Neat	5 g
DLM-24-10	<b>Methanol (D<sub>4</sub>,99.8%)</b>	CD <sub>3</sub> OD	Neat	10 g
CLM-1593-0.25	<b>Methylene chloride (<sup>13</sup>C,99%)</b>	*CH <sub>2</sub> Cl <sub>2</sub>	Neat	0.25 g
CLM-1593-0.5	<b>Methylene chloride (<sup>13</sup>C,99%)</b>	*CH <sub>2</sub> Cl <sub>2</sub>	Neat	0.5 g
DLM-23-5	<b>Methylene chloride (D<sub>2</sub>,99.9%)</b>	CD <sub>2</sub> Cl <sub>2</sub>	Neat	5 g
DLM-2277-1	<b>2-(4-Methylphenyl) propane (D<sub>14</sub>,98%)</b>	D <sub>3</sub> CC <sub>6</sub> D <sub>4</sub> CD(CD <sub>3</sub> ) <sub>2</sub>	Neat	1 g
CLM-1332-1.2	<b>Naphthalene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-365-1.2	<b>Naphthalene (D<sub>8</sub>,99%)</b>	C <sub>10</sub> D <sub>8</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-365-1	<b>Naphthalene (D<sub>8</sub>,99%)</b>	C <sub>10</sub> D <sub>8</sub>	Neat	1 g
DLM-365-5	<b>Naphthalene (D<sub>8</sub>,99%)</b>	C <sub>10</sub> D <sub>8</sub>	Neat	5 g
DLM-365-10	<b>Naphthalene (D<sub>8</sub>,99%)</b>	C <sub>10</sub> D <sub>8</sub>	Neat	10 g
<b>NEW</b> DLM-3875-10	<b>Naphthalene (D<sub>8</sub>,99.5%)</b>	C <sub>10</sub> D <sub>8</sub>	Neat	10 g
ULM-7425-1.2	<b>Naphthalene (unlabeled)</b>	C <sub>10</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-675-5	<b>Nitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1 mL
DLM-294-5	<b>Nitrobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> NO <sub>2</sub>	Neat	5 g
DLM-294-10	<b>Nitrobenzene (D<sub>5</sub>,99%)</b>	C <sub>6</sub> D <sub>5</sub> NO <sub>2</sub>	Neat	10 g
ULM-3892-1.2	<b>Nitrobenzene (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	1 mg/mL in Acetonitrile	1.2 mL
<b>NEW</b> DLM-7779-5	<b>N-Nitrodimethylamine (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>2</sub> D <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> ULM-7780-5	<b>N-Nitrodimethylamine (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride	1 mL
DLM-295-0.1	<b>2-Nitrophenol (ring-D<sub>4</sub>,98%)</b>	O <sub>2</sub> NC <sub>6</sub> D <sub>4</sub> OH	Neat	0.1 g
DLM-295-0.25	<b>2-Nitrophenol (ring-D<sub>4</sub>,98%)</b>	O <sub>2</sub> NC <sub>6</sub> D <sub>4</sub> OH	Neat	0.25 g
DLM-296-0.1	<b>4-Nitrophenol (ring-D<sub>4</sub>,98%)</b>	O <sub>2</sub> NC <sub>6</sub> D <sub>4</sub> OH	Neat	0.1 g
DLM-296-0.25	<b>4-Nitrophenol (ring-D<sub>4</sub>,98%)</b>	O <sub>2</sub> NC <sub>6</sub> D <sub>4</sub> OH	Neat	0.25 g
<b>NEW</b> DLM-7982-5	<b>N-Nitrosodiethylamine (D<sub>10</sub>,98%)</b>	(C <sub>2</sub> D <sub>5</sub> ) <sub>2</sub> NNO	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> ULM-7984-1.2	<b>N-Nitrosodiethylamine (unlabeled)</b>	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NNO	1 mg/mL in Methylene chloride	1.2 mL
CDLM-7279-5	<b>N-Nitrosodimethylamine (<sup>13</sup>C<sub>2</sub>,99%;D<sub>6</sub>,98%)</b>	*C <sub>2</sub> D <sub>6</sub> NNO	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
<b>NEW</b> NLM-7647-5	<b>N-Nitrosodimethylamine (<sup>15</sup>N<sub>2</sub>,98%)</b>	C <sub>2</sub> H <sub>6</sub> *NNO	1 mg/mL in Methylene chloride	1 mL
DLM-2130-5	<b>N-Nitrosodimethylamine (2,2',4,4',6,6'-D<sub>6</sub>,98%)</b>	C <sub>2</sub> D <sub>6</sub> NNO	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
DLM-3098-5	<b>N-Nitrosodiphenylamine (2,2',4,4',6,6'-D<sub>6</sub>,98%)</b>	(C <sub>6</sub> D <sub>3</sub> H <sub>2</sub> ) <sub>2</sub> NN=O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
DLM-3098-0.01	<b>N-Nitrosodiphenylamine (2,2',4,4',6,6'-D<sub>6</sub>,98%)</b>	(C <sub>6</sub> D <sub>3</sub> H <sub>2</sub> ) <sub>2</sub> NN=O	Neat	0.01 g
<b>NEW</b> ULM-7219-1.2	<b>N-Nitrosodiphenylamine (unlabeled)</b>	(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> NN=O	1 mg/mL in Methylene chloride	1.2 mL

Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-2131-S	<b>N-Nitrosodi-<i>n</i>-propylamine (D<sub>14</sub>,98%)</b>	C <sub>6</sub> D <sub>14</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1 mL
DLM-2131-0.05	<b>N-Nitrosodi-<i>n</i>-propylamine (D<sub>14</sub>,98%)</b>	C <sub>6</sub> D <sub>14</sub> N <sub>2</sub> O	Neat	0.05 g
ULM-6637-S	<b>N-Nitrosodi-<i>n</i>-propylamine (unlabeled)</b>	C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride	1.2 mL
<b>NEW</b> DLM-8254-1.2	<b>N-Nitrosomorpholine (D<sub>8</sub>,98%)</b>	CD <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
<b>NEW</b> ULM-8255-1.2	<b>N-Nitrosomorpholine (unlabeled) (CP: 96%)</b>	CH <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	1 mg/mL in Methylene chloride	1.2 mL
<b>NEW</b> DLM-8252-1.2	<b>N-Nitrosopyrrolidine (D<sub>8</sub>,98%)</b>	C <sub>4</sub> D <sub>8</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
<b>NEW</b> ULM-8253-1.2	<b>N-Nitrosopyrrolidine (unlabeled)</b>	C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O	1 mg/mL in Methylene chloride	1.2 mL
<b>NEW</b> ULM-2323-4X25	<b><i>n</i>-Nonane (unlabeled)</b>	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	Neat	4 x 25 mL
CLM-6680-1.2	<b>Octachlorostyrene (<sup>13</sup>C<sub>8</sub>,99%)</b>	*C <sub>8</sub> Cl <sub>5</sub> *CCl=CCl <sub>2</sub>	100 µg/mL in Isooctane	1.2 mL
ULM-1709-1.2	<b>Octachlorostyrene (unlabeled)</b>	C <sub>8</sub> Cl <sub>5</sub> CCl=CCl <sub>2</sub>	100 µg/mL in Isooctane	1.2 mL
<b>NEW</b> CLM-7930-1.2	<b>Parlar 26 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>10</sub> Cl <sub>8</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7828-1.2	<b>Parlar 26 (unlabeled)</b>	C <sub>10</sub> H <sub>10</sub> Cl <sub>8</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8705-1.2	<b>Parlar 32 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8665-1.2	<b>Parlar 32 (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8719-1.2	<b>Parlar 39 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8767-1.2	<b>Parlar 39 (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7931-1.2	<b>Parlar 50 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7829-1.2	<b>Parlar 50 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7932-1.2	<b>Parlar 62 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7830-1.2	<b>Parlar 62 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8720-1.2	<b>Parlar 69 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8768-1.2	<b>Parlar 69 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8721-1.2	<b>Parlar 70 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8769-1.2	<b>Parlar 70 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
CLM-2050-1.2	<b>Pentachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> HCl <sub>5</sub>	100 µg/mL in Isooctane	1.2 mL
CLM-1955-1.2	<b>Pentachloronitrobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-661-1.2	<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-661-0.01	<b>Pentachlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>5</sub> OH	Neat	0.01 g
ULM-6894-1.2	<b>Pentachlorophenol (unlabeled)</b>	C <sub>6</sub> Cl <sub>5</sub> OH	100 µg/mL in Nonane	1.2 mL
OLM-7310-1.2	<b>Perchloric acid, sodium salt (<sup>18</sup>O<sub>4</sub>,90%+)</b>	Cl <sup>18</sup> O <sub>4</sub> -Na	100 µg/mL in Water	1.2 mL
ULM-7312-1.2	<b>Perchloric acid, sodium salt (unlabeled)</b>	ClO <sub>4</sub> -Na	100 µg/mL in Water	1.2 mL
CLM-2451-1.2	<b>Phenanthrene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>14</sub> C <sub>8</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-371-1.2	<b>Phenanthrene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-371-0.1	<b>Phenanthrene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	Neat	0.1 g
DLM-371-1	<b>Phenanthrene (D<sub>10</sub>,98%)</b>	C <sub>14</sub> D <sub>10</sub>	Neat	1 g
ULM-7427-1.2	<b>Phenanthrene (unlabeled)</b>	C <sub>14</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
CLM-216-0.1	<b>Phenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> OH	Neat	0.1 g
DLM-695-1	<b>Phenol (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> OH	Neat	1 g
DLM-695-5	<b>Phenol (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> OH	Neat	5 g
DLM-370-5	<b>Phenol (D<sub>6</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> OD	Neat	5 g
DLM-3039	<b>Phenylbutazone (diphenyl-D<sub>10</sub>,98%)</b>	C <sub>19</sub> D <sub>10</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>		Inquire
<b>NEW</b> ULM-7378	<b>Phenylbutazone (unlabeled)</b>	C <sub>19</sub> H <sub>20</sub> N <sub>2</sub> O <sub>2</sub>		Inquire
CLM-3733-1.2	<b><i>o</i>-Phenylphenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
ULM-7396-1.2	<b><i>o</i>-Phenylphenol (unlabeled)</b>	C <sub>12</sub> H <sub>9</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-3748-1.2	<b><i>p</i>-Phenylphenol (<sup>13</sup>C<sub>6</sub>,99%) (CP: 96%)</b>	*C <sub>6</sub> H <sub>5</sub> C <sub>6</sub> H <sub>4</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-3040-0.5	<b>Phthalic acid (carboxyl-<sup>13</sup>C,99%)</b>	C <sub>6</sub> H <sub>4</sub> (*CO <sub>2</sub> H)CO <sub>2</sub> H	Neat	0.5 g
DLM-787-5	<b>Phthalic acid (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> H) <sub>2</sub>	Neat	5 g
DLM-1293-0.1	<b>2-Picoline (2-methylpyridine) (D<sub>7</sub>,98%)</b>	C <sub>5</sub> D <sub>4</sub> NCD <sub>3</sub>	Neat	0.1 g
DLM-1293-1	<b>2-Picoline (2-methylpyridine) (D<sub>7</sub>,98%)</b>	C <sub>5</sub> D <sub>4</sub> NCD <sub>3</sub>	Neat	1 g
DLM-1541-1	<b>3-Picoline (3-methylpyridine) (D<sub>7</sub>,98%)</b>	C <sub>5</sub> D <sub>4</sub> NCD <sub>3</sub>	Neat	1 g
DLM-1294-1	<b>4-Picoline (4-methylpyridine) (D<sub>7</sub>,98%)</b>	C <sub>5</sub> D <sub>4</sub> NCD <sub>3</sub>	Neat	1 g
DLM-1067-5	<b>1,2-Propylene oxide (D<sub>6</sub>,98%) **</b>	CD <sub>3</sub> CD <sub>2</sub> O	Neat	5 g

Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-3601-1.2	<b>Pyrene (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>13</sub> H <sub>10</sub>	100 µg/mL in Nonane	1.2 mL
DLM-155-1.2	<b>Pyrene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-155-0.1	<b>Pyrene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	Neat	0.1 g
DLM-155-0.5	<b>Pyrene (D<sub>10</sub>,98%)</b>	C <sub>16</sub> D <sub>10</sub>	Neat	0.5 g
ULM-7417-1.2	<b>Pyrene (unlabeled)</b>	C <sub>16</sub> H <sub>10</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-1158-0.1	<b>Quinoline (D<sub>7</sub>,98%)</b>	C <sub>9</sub> D <sub>7</sub> N	Neat	0.1 g
DLM-1158-1	<b>Quinoline (D<sub>7</sub>,98%)</b>	C <sub>9</sub> D <sub>7</sub> N	Neat	1 g
DLM-3322-0.5	<b>trans-Stilbene (D<sub>12</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> CD=CDC <sub>6</sub> D <sub>5</sub>	Neat	0.5 g
DLM-1083-5	<b>Styrene (stabilized with BHT) (vinyl-D<sub>3</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> CD=CD <sub>2</sub>	Neat	5 g
DLM-809-5	<b>Styrene (stabilized with BHT) (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> CH=CH <sub>2</sub>	Neat	5 g
DLM-380-1.2	<b>Styrene (stabilized with BHT) (D<sub>8</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> CD=CD <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
DLM-380-1	<b>Styrene (stabilized with BHT) (D<sub>8</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> CD=CD <sub>2</sub>	Neat	1 g
DLM-380-5	<b>Styrene (stabilized with BHT) (D<sub>8</sub>,98%)</b>	C <sub>6</sub> D <sub>5</sub> CD=CD <sub>2</sub>	Neat	5 g
DLM-1088-1	<b>Terephthalic acid (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> H) <sub>2</sub>	Neat	1 g
DLM-1088-5	<b>Terephthalic acid (ring-D<sub>4</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CO <sub>2</sub> H) <sub>2</sub>	Neat	5 g
DLM-450-1	<b>o-Terphenyl (D<sub>14</sub>,98%)</b>	C <sub>18</sub> D <sub>14</sub>	Neat	1 g
DLM-450-5	<b>o-Terphenyl (D<sub>14</sub>,98%)</b>	C <sub>18</sub> D <sub>14</sub>	Neat	5 g
DLM-382-1.2	<b>p-Terphenyl (D<sub>14</sub>,98%)</b>	C <sub>18</sub> D <sub>14</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-382-1	<b>p-Terphenyl (D<sub>14</sub>,98%)</b>	C <sub>18</sub> D <sub>14</sub>	Neat	1 g
DLM-382-5	<b>p-Terphenyl (D<sub>14</sub>,98%)</b>	C <sub>18</sub> D <sub>14</sub>	Neat	5 g
<b>NEW</b> ULM-7428-1.2	<b>p-Terphenyl (unlabeled)</b>	C <sub>18</sub> H <sub>14</sub>	200 µg/mL in Isooctane	1.2 mL
DLM-2279-0.1	<b>α-Terpineol (propyl methyl-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> C <sub>6</sub> H <sub>7</sub> C <sub>3</sub> H <sub>7</sub> OH	Neat	0.1 g
DLM-2279-0.5	<b>α-Terpineol (propyl methyl-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> C <sub>6</sub> H <sub>7</sub> C <sub>3</sub> H <sub>7</sub> OH	Neat	0.5 g
CLM-585-5	<b>1,2,4,5-Tetrachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	Neat	5 mg
CLM-585-0.1	<b>1,2,4,5-Tetrachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	Neat	0.1 g
DLM-1177-1	<b>1,2,4,5-Tetrachlorobenzene (D<sub>2</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>4</sub>	Neat	1 g
DLM-1177-5	<b>1,2,4,5-Tetrachlorobenzene (D<sub>2</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>4</sub>	Neat	5 g
ULM-1704-0.1	<b>3,4,5,6-Tetrachlorocatechol (unlabeled)</b>	Cl <sub>4</sub> C <sub>6</sub> (OH) <sub>2</sub>	Neat	0.1 g
ED-900	<b>2,3,7,8-Tetrachlorodibenzo-p-dioxin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>4</sub> Cl <sub>4</sub> O <sub>2</sub>	50 µg/mL in Nonane	1.2 mL
ED-901	<b>2,3,7,8-Tetrachlorodibenzo-p-dioxin (unlabeled)</b>	C <sub>12</sub> H <sub>4</sub> Cl <sub>4</sub> O <sub>2</sub>	50 µg/mL in Nonane	4x1.2mL
DLM-35-5	<b>1,1,2,2-Tetrachloroethane (D<sub>2</sub>,99.6%)</b>	Cl <sub>2</sub> CDCDCI <sub>2</sub>	Neat	5 g
CLM-1965-0.1	<b>Tetrachloroethylene (<sup>13</sup>C<sub>2</sub>,99%)</b>	Cl <sub>2</sub> *C=*CCI <sub>2</sub>	Neat	0.1 g
ULM-1708-0.1	<b>3,4,5,6-Tetrachloroguaiacol (unlabeled)</b>	Cl <sub>4</sub> C <sub>6</sub> (OH)(OCH <sub>3</sub> )	Neat	0.1 g
ULM-2428-0.1	<b>2,3,4,5-Tetrachlorophenol (unlabeled)</b>	C <sub>6</sub> HCl <sub>4</sub> OH	Neat	0.1 g
ULM-2429-0.1	<b>2,3,4,6-Tetrachlorophenol (unlabeled)</b>	C <sub>6</sub> HCl <sub>4</sub> OH	Neat	0.1 g
ULM-2430-0.1	<b>2,3,5,6-Tetrachlorophenol (unlabeled)</b>	C <sub>6</sub> HCl <sub>4</sub> OH	Neat	0.1 g
DLM-2053-0.1	<b>cis-1,2,3,6-Tetrahydrophthalic anhydride (3,3,4,5,6,6-D<sub>6</sub>,98%)</b>	C <sub>8</sub> D <sub>6</sub> H <sub>2</sub> O <sub>3</sub>	Neat	0.1 g
DLM-2054-0.1	<b>cis-1,2,3,6-Tetrahydrophthalimide (3,3,4,5,6,6-D<sub>6</sub>,98%)</b>	C <sub>8</sub> D <sub>6</sub> H <sub>3</sub> NO <sub>2</sub>	Neat	0.1 g
<b>NEW</b> CLM-6069-0.1	<b>Toluene (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	Neat	0.1 g
CLM-309-0.5	<b>Toluene (methyl-<sup>13</sup>C,99%)</b>	C <sub>6</sub> H <sub>5</sub> *CH <sub>3</sub>	Neat	0.5 g
CLM-309-1	<b>Toluene (methyl-<sup>13</sup>C,99%)</b>	C <sub>6</sub> H <sub>5</sub> *CH <sub>3</sub>	Neat	1 g
DLM-1175-1	<b>Toluene (methyl-D<sub>3</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> CD <sub>3</sub>	Neat	1 g
DLM-1175-5	<b>Toluene (methyl-D<sub>3</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> CD <sub>3</sub>	Neat	5 g
DLM-1176-1	<b>Toluene (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> CD <sub>3</sub>	Neat	1 g
DLM-1176-5	<b>Toluene (ring-D<sub>5</sub>,98%)</b>	C <sub>6</sub> H <sub>5</sub> CD <sub>3</sub>	Neat	5 g
DLM-5-5	<b>Toluene (D<sub>8</sub>,99.5%)</b>	C <sub>6</sub> H <sub>5</sub> CD <sub>3</sub>	Neat	5 g
<b>NEW</b> DLM-7136-1.2	<b>Tributyltin chloride (D<sub>27</sub>,98%)</b>	C <sub>12</sub> D <sub>27</sub> ClSn	100 µg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
<b>NEW</b> ULM-8061-1.2	<b>Tributyltin chloride (unlabeled)</b>	C <sub>12</sub> H <sub>27</sub> ClSn	100 µg/mL in Methylene chloride	1.2 mL

## Priority Pollutant Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> DLM-6083-1.2	<b>2,4,6-Trichloroanisole (D<sub>5</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>3</sub> OCD <sub>3</sub>	1 mg/mL in Methanol-D	1.2 mL
DLM-6083-0.1	<b>2,4,6-Trichloroanisole (D<sub>5</sub>,98%)</b>	C <sub>7</sub> Cl <sub>3</sub> D <sub>5</sub> O	Neat	0.1 g
<b>NEW</b> ULM-7999-1.2	<b>2,4,6-Trichloroanisole (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OCH <sub>3</sub>	1 mg/mL in Methanol	1.2 mL
DLM-1972-0.1	<b>1,2,3-Trichlorobenzene (D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>3</sub>	Neat	0.1 g
DLM-1178-0.1	<b>1,2,4-Trichlorobenzene (D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>3</sub>	Neat	0.1 g
DLM-1178-1	<b>1,2,4-Trichlorobenzene (D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>3</sub>	Neat	1 g
DLM-1178-5	<b>1,2,4-Trichlorobenzene (D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>3</sub>	Neat	5 g
DLM-799-1	<b>1,3,5-Trichlorobenzene (D<sub>3</sub>,98%)</b>	C <sub>6</sub> D <sub>3</sub> Cl <sub>3</sub>	Neat	1 g
ULM-1703-0.1	<b>3,4,5-Trichlorocatechol (unlabeled)</b> (CP: 95-99%)	Cl <sub>3</sub> C <sub>6</sub> H(OH) <sub>2</sub>	Neat	0.1 g
DLM-1974-0.1	<b>1,1,1-Trichloroethane (D<sub>3</sub>,98%)</b>	CD <sub>3</sub> CCl <sub>3</sub>	Neat	0.1 g
DLM-1974-1	<b>1,1,1-Trichloroethane (D<sub>3</sub>,98%)</b>	CD <sub>3</sub> CCl <sub>3</sub>	Neat	1 g
CLM-2075-0.1	<b>1,1,2-Trichloroethane (<sup>13</sup>C<sub>2</sub>,99%)</b>	Cl <sub>2</sub> *CH*CH <sub>2</sub> Cl	Neat	0.1 g
DLM-1975-0.1	<b>1,1,2-Trichloroethane (1,2,2-D<sub>3</sub>,98%)</b>	Cl <sub>2</sub> CDCD <sub>2</sub> Cl	Neat	0.1 g
DLM-1975-0.5	<b>1,1,2-Trichloroethane (1,2,2-D<sub>3</sub>,98%)</b>	Cl <sub>2</sub> CDCD <sub>2</sub> Cl	Neat	0.5 g
CLM-129-0.1	<b>Trichloroethylene (<sup>13</sup>C<sub>2</sub>,99%) (stabilized with diisopropylamine)</b>	Cl <sub>2</sub> *C=*CHCl	Neat	0.1 g
DLM-3049-1	<b>Trichloroethylene (D,98%)</b>	Cl <sub>2</sub> C=CDCl	Neat	1 g
CLM-513-1	<b>2,4,5-Trichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OH	100 µg/mL in Methanol	1 mL
DLM-2143-0.1	<b>2,4,5-Trichlorophenol (ring-D<sub>2</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>3</sub> OH	Neat	0.1 g
CLM-1804-1	<b>2,4,6-Trichlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OH	100 µg/mL in Methanol	1 mL
DLM-3093-0.01	<b>2,4,6-Trichlorophenol (ring-D<sub>2</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>3</sub> OH	Neat	0.01 g
DLM-3093-0.1	<b>2,4,6-Trichlorophenol (ring-D<sub>2</sub>,98%)</b>	C <sub>6</sub> D <sub>2</sub> Cl <sub>3</sub> OH	Neat	0.1 g
DLM-2080-0.1	<b>1,2,3-Trichloropropane (D<sub>5</sub>,98%)</b> (CP: 95%)	CD <sub>2</sub> ClCDCICD <sub>2</sub> Cl	Neat	0.1 g
<b>NEW</b> DLM-7663	<b>Triethanolamine (D<sub>15</sub>,98%)</b> (CP: 97% – contains 2-Amino-1-propanol)	(DOCD <sub>2</sub> CD <sub>2</sub> ) <sub>3</sub> N		Inquire
DLM-3344-5	<b>Vinyl bromide (D<sub>3</sub>,98%) ** (inhibited with Hydroquinone)</b>	CD <sub>2</sub> =CDBr	Neat	5 g
DLM-167-5	<b>Vinyl chloride (D<sub>3</sub>,98%) ** (inhibited with Hydroquinone)</b>	CD <sub>2</sub> =CDCl	Neat	5 g
DLM-167-1.2	<b>Vinyl chloride (D<sub>3</sub>,98%)</b>	CD <sub>2</sub> =CDCl	50 µg/mL in Methanol-OD	1.2 mL
DLM-808-5	<b>o-Xylene (D<sub>10</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CD <sub>3</sub> ) <sub>2</sub>	Neat	5 g
DLM-2398-5	<b>m-Xylene (D<sub>10</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CD <sub>3</sub> ) <sub>2</sub>	Neat	5 g
DLM-313-5	<b>p-Xylene (D<sub>10</sub>,98%)</b>	C <sub>6</sub> D <sub>4</sub> (CD <sub>3</sub> ) <sub>2</sub>	Neat	5 g

\*\*Gases require a Breakseal Flask or Cylinder and Valve at an additional charge. Breakseal Flasks are only available for certain gases at atmospheric pressure.



Notes

Essential to agricultural productivity and general pest control, many pesticides have been found to be toxic to humans and animals, and as such have been banned from use in numerous countries. The Stockholm Convention has focused worldwide attention on analysis of the most toxic pesticides. CIL promotes the development of new isotope-labeled legacy and “new use” pesticides to support laboratories using IDMS for the most accurate analytical results.





## Pesticide Standards

CIL continues to add to our already extensive inventory of isotopically labeled standards for pesticide and pesticide metabolite analysis. As a result of this development over the past few years, we can now present our standards by category, including: Organochlorine, Organophosphorous, Carbamate, Triazine, or Pyrethroid pesticide standards. You can still find our complete listing as well if you wish to scan through the comprehensive array of standards.

## Chlorinated Cyclodiene Pesticide Standards

Chlorinated Cyclodiene Pesticides account for seven of the compounds governed by the Stockholm Convention. While production and use of these compounds is stringently regulated if not banned outright, their widespread use for decades and persistence in the environment ensures their presence in the environment and biota for years to come. CIL offers a comprehensive selection of the individual standards, as well as a growing list of convenient mixes.

## Organochlorine Pesticide Standards

Organochlorinated Pesticides, like Chlorinated Cyclodiene Pesticides, are heavily represented in the list of compounds governed by the Stockholm Convention. Also like Chlorinated Cyclodiene Pesticides, their widespread use for decades and persistence in the environment ensures their presence in the environment and biota for years to come.

## Organophosphate (OP), Pyrethroid and Carbamate Pesticides

As man's quest for less toxic (to larger species) and less environmentally persistent pesticides expands, the need for new testing has expanded as well. CIL continues to prepare and provide standards for the analysis of alternative and minor pesticides and herbicides.

## Triazine Herbicide and Metabolite Standards

Atrazine is one of the most widely used herbicides in the world. In recent years, studies on the correlation of physical and reproductive disorders in frogs with Atrazine exposure has been a controversial topic. With CIL's comprehensive collection of carefully purified and prepared standards of Atrazine and its many metabolites, researchers should have some powerful tools to refine their investigations.

## Toxaphene Standards

CIL has put considerable effort into developing the first set of <sup>13</sup>C-labeled Toxaphene standards! Listed by Parlar congener#, our labeled and unlabeled standard offerings continue to grow, so keep an eye on our website and future product announcements for more details. Our new POPs Toxaphene mixtures are ideal for researchers interested in primary investigations of the most prevalent congeners.

## Pesticide Standard Mixtures

New applications and increased testing by Isotope Dilution MS have led to the development of several new pesticides mixtures being offered for the first time in this catalog. Our new Expanded POPs pesticide calibration series and related spiking mixtures contain all pesticides listed as Stockholm Convention POPs compounds, including the recently added Kepone (aka Chlordecone), HCHs (including Lindane), Pentachlorobenzene, and Endosulfan I and II. These new solutions allow analysts to use preformulated mixtures for detection and quantification of the complete series of these important POPs compounds.

## Chemical Weapon Metabolite Standards

Often quite similar to metabolites of common pesticides, Chemical Weapons metabolite standards assist researchers determine potential contamination from dangerous compounds such as nerve agents and other toxic chemicals. Several metabolites, degradation byproducts and more are represented in this section.

## Chlorinated Cyclodiene Pesticide Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-4725-1.2	<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7441-1.2	<b>Aldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8087-1.2	<b>cis-Chlordane (α) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2419-25	<b>cis-Chlordane (α) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
CLM-4792-1.2	<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2420-1.2	<b>trans-Chlordane (γ) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-4814-1.2	<b>Chlordecone (Kepone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-2301-1.2	<b>Chlordecone (Kepone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4758-1.2	<b>Chlordene (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7443-1.2	<b>Chlordene (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4726-1.2	<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7230-1.2	<b>Dieldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-6025-1.2	<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
DLM-2862-1.2	<b>Endosulfan I (D<sub>4</sub>,97%)</b>	C <sub>9</sub> D <sub>4</sub> H <sub>2</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7447-1.2	<b>Endosulfan I (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-6026-1.2	<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7448-1.2	<b>Endosulfan II (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7531-1.2	<b>Endosulfan sulfate (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7990-1.2	<b>Endosulfan sulfate (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-4782-1.2	<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7444-1.2	<b>Endrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4815-50	<b>Endrin aldehyde (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-4816-50	<b>Endrin ketone (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>8</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-4759-1.2	<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-1.2	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4734-1.2	<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-1.2	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7869-1.2	<b>trans-Heptachlor epoxide (A isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4727-1.2	<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7442-1.2	<b>Isodrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4814-1.2	<b>Kepone (Chlordecone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2301-1.2	<b>Kepone (Chlordecone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4813-1.2	<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2427-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2427-SM-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Methanol	1.2 mL
CLM-4811-1.2	<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7445-1.2	<b>cis-Nonachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4735-1.2	<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7229-1.2	<b>trans-Nonachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4729-1.2	<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-1.2	<b>Oxychlordane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-SM-1.2	<b>Oxychlordane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Methanol	1.2 mL

NOTE: Some standards also available in less than uniformly labeled forms. Please inquire if interested.

## Organochlorine (OC) Pesticide and Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-4725-1.2	<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7441-1.2	<b>Aldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-2482-1.2	<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7232-1.2	<b>α-BHC (α-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3623-1.2	<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	50 µg/mL in Nonane	2 x 1.2 mL
ULM-6132-1.2	<b>β-BHC (β-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	50 µg/mL in Nonane	2 x 1.2 mL
ULM-6132-SM-1.2	<b>β-BHC (β-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Methanol	1.2 mL
CDLM-624-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%;D<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1282-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6133-1.2	<b>γ-BHC (γ-HCH) (Lindane) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6133-SM-1.2	<b>γ-BHC (γ-HCH) (Lindane) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Methanol	1.2 mL
CLM-3648-1.2	<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7233-1.2	<b>δ-BHC (δ-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8087-1.2	<b>cis-Chlordane (α) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2419-25	<b>cis-Chlordane (α) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
CLM-4792-1.2	<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2420-25	<b>trans-Chlordane (γ) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
<b>NEW</b> CLM-4814-1.2	<b>Chlordecone (Kepone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-2301-1.2	<b>Chlordecone (Kepone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-2301-0.1	<b>Chlordecone (Kepone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	Neat	0.1 g
CLM-4758-1.2	<b>Chlordene (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7443-1.2	<b>Chlordene (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-6999-1.2	<b>2,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>o,p'</i> -Dichlorodiphenyl) dichloroethane]	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	50 µg/mL in Nonane	1.2 mL
ULM-7450-1.2	<b>2,4'-DDD (unlabeled)</b> [( <i>o,p'</i> -Dichlorodiphenyl) dichloroethane]	C <sub>14</sub> H <sub>10</sub> Cl <sub>4</sub>	50 µg/mL in Nonane	1.2 mL
CLM-7100-1.2	<b>4,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethane]	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
DLM-3533-1.2	<b>4,4'-DDD (ring-D<sub>8</sub>,98%)</b> [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethane]	C <sub>14</sub> D <sub>8</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7216-1.2	<b>4,4'-DDD (unlabeled)</b> [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethane]	C <sub>14</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4693-1.2	<b>2,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>o,p'</i> -Dichlorodiphenyl) dichloroethylene]	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6251-1.2	<b>2,4'-DDE (unlabeled)</b> [( <i>o,p'</i> -Dichlorodiphenyl) dichloroethylene]	C <sub>14</sub> H <sub>8</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1627-1.2	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethylene]	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1627-5	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethylene]	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	Neat	5 mg
ULM-6137-1.2	<b>4,4'-DDE (unlabeled)</b> [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethylene]	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4692-1.2	<b>2,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>o,p'</i> -Dichlorodiphenyl) trichloroethane]	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6134-1.2	<b>2,4'-DDT (unlabeled)</b> [( <i>o,p'</i> -Dichlorodiphenyl) trichloroethane]	ClC <sub>6</sub> H <sub>4</sub> CH(CCl <sub>3</sub> )C <sub>6</sub> H <sub>4</sub> Cl	100 µg/mL in Nonane	1.2 mL
CLM-1281-1.2	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>p,p'</i> -Dichlorodiphenyl) trichloroethane]	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1281-5	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b> [( <i>p,p'</i> -Dichlorodiphenyl) trichloroethane]	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	Neat	5 mg
ULM-6135-1.2	<b>4,4'-DDT (unlabeled)</b> [( <i>p,p'</i> -Dichlorodiphenyl) trichloroethane]	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL

## Organochlorine (OC) Pesticide and Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-816-1.2	<b>2,6-Dichloro-4-nitroaniline (Dicloran) (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	Cl <sub>2</sub> *C <sub>6</sub> H <sub>2</sub> (NO <sub>2</sub> )/NH <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4726-1.2	<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7230-1.2	<b>Dieldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-6025-1.2	<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
DLM-2862-1.2	<b>Endosulfan I (D<sub>4</sub>,97%)</b>	C <sub>9</sub> D <sub>4</sub> H <sub>2</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7447-1.2	<b>Endosulfan I (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-6026-1.2	<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7448-1.2	<b>Endosulfan II (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7531-1.2	<b>Endosulfan sulfate (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7990-1.2	<b>Endosulfan sulfate (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-4782-1.2	<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7444-1.2	<b>Endrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4815-50	<b>Endrin aldehyde (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-4816-50	<b>Endrin ketone (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>8</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-4759-1.2	<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-1.2	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-0.1	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	Neat	0.1 g
CLM-4734-1.2	<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-1.2	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-0.1	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	Neat	0.1 g
<b>NEW</b> ULM-7869-1.2	<b>trans-Heptachlor epoxide (A isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-351-1.2	<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6130-1.2	<b>Hexachlorobenzene (unlabeled)</b>	C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4727-1.2	<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7442-1.2	<b>Isodrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4814-1.2	<b>Kepone (Chlordecone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2301-1.2	<b>Kepone (Chlordecone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2301-0.1	<b>Kepone (Chlordecone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	Neat	0.1 g
CLM-4683-1.2	<b>Methoxychlor (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> OC) <sub>2</sub> C <sub>2</sub> Cl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7440-1.2	<b>Methoxychlor (unlabeled)</b>	(CH <sub>3</sub> OC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4813-1.2	<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
CLM-2078-1	<b>Mirex (<sup>13</sup>C<sub>8</sub>,99%)</b>	*C <sub>8</sub> C <sub>2</sub> Cl <sub>12</sub>	100 µg/mL in Toluene	1 mL
ULM-2427-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2427-SM-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Methanol	1.2 mL
ULM-2427-0.1	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	Neat	0.1 g
CLM-4811-1.2	<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7445-1.2	<b>cis-Nonachlor (unlabeled)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4735-1.2	<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7229-1.2	<b>trans-Nonachlor (unlabeled)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4729-1.2	<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-1.2	<b>Oxychlordane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-SM-1.2	<b>Oxychlordane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Methanol	1.2 mL

## Organophosphate (OP) Pesticide and Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-6000-1.2	<b>Acephate (D<sub>6</sub>,98%)</b>	C <sub>4</sub> D <sub>6</sub> H <sub>4</sub> NO <sub>3</sub> PS	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-7263-1.2	<b>Acephate (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> NO <sub>3</sub> PS	100 µg/mL in Acetonitrile	1.2 mL
CDNLM-6786-1.2	<b>Aminomethylphosphonic acid (AMPA) (<sup>13</sup>C,<sub>99%</sub>; <sup>15</sup>N,<sub>98%</sub>, methylene-D<sub>2</sub>,98%)</b>	*CH <sub>4</sub> D <sub>2</sub> *NO <sub>3</sub> P	100 µg/mL in H <sub>2</sub> O	1.2 mL
<b>NEW</b> DLM-7152	<b>Bensulide (isopropoxy-D<sub>14</sub>,98%)</b>	C <sub>14</sub> D <sub>14</sub> H <sub>10</sub> NO <sub>4</sub> PS <sub>3</sub>		Inquire
DLM-4360-1.2	<b>Chlorpyrifos (diethyl-D<sub>10</sub>,99%)</b>	C <sub>9</sub> D <sub>10</sub> HCl <sub>3</sub> NO <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7489-1.2	<b>Chlorpyrifos (unlabeled)</b>	C <sub>9</sub> H <sub>11</sub> Cl <sub>3</sub> NO <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> DLM-7153	<b>Chlorpyrifos methyl (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>7</sub> HCl <sub>3</sub> D <sub>6</sub> NO <sub>3</sub> PS		Inquire
ERC-034	<b>Cyclohexyl methylphosphonic acid (unlabeled)</b>	C <sub>7</sub> H <sub>15</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
DLM-1148-1.2	<b>Diazinon (diethyl-D<sub>10</sub>,98%)</b>	C <sub>12</sub> H <sub>11</sub> D <sub>10</sub> N <sub>2</sub> O <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
ULM-6575-S-10X-1.2	<b>Diazinon (unlabeled)</b>	C <sub>12</sub> H <sub>21</sub> N <sub>2</sub> O <sub>3</sub> PS	1000 µg/mL in Nonane	1.2 mL
DLM-2829-0.01	<b>Dichlorvos (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>4</sub> D <sub>6</sub> HCl <sub>2</sub> O <sub>4</sub> P	Neat	10 mg
ULM-7217-1.2	<b>Dichlorvos (unlabeled)</b>	(H <sub>3</sub> CO) <sub>2</sub> POOCH=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ERD-117	<b>O,O-Diethyl dithiophosphate, potassium salt (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> KO <sub>2</sub> PS <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
<b>NEW</b> ERD-155	<b>O,O-Dimethyl dithiophosphate, sodium salt (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>2</sub> PS <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
ERD-118	<b>Diethyl phosphate (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> O <sub>4</sub> P	1000 µg/mL in Methanol	1.2 mL
DLM-4852-1.2	<b>O,O-Diethyl thiophosphate, potassium salt (diethyl-D<sub>10</sub>,98%)</b>	C <sub>4</sub> D <sub>10</sub> KO <sub>3</sub> PS	100 µg/mL in Methanol	1.2 mL
ERD-119	<b>O,O-Diethyl thiophosphate, potassium salt (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> KO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
ERD-086	<b>Diisopropyl methylphosphonate (D<sub>14</sub>,98%)</b>	C <sub>7</sub> H <sub>3</sub> D <sub>14</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERD-083	<b>Diisopropyl methylphosphonate (unlabeled)</b>	C <sub>7</sub> H <sub>17</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
<b>NEW</b> DLM-7151-1.2	<b>Dimethoate (O,O-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>5</sub> D <sub>6</sub> H <sub>6</sub> NO <sub>3</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7972-1.2	<b>Dimethoate (unlabeled)</b>	C <sub>5</sub> H <sub>12</sub> NO <sub>3</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
ERD-121	<b>Dimethyl phosphate (unlabeled)</b>	(CH <sub>3</sub> O) <sub>2</sub> P(O)OH	1000 µg/mL in Methanol	1.2 mL
ULM-4617-1.2	<b>O,O-Dimethyl thiophosphate (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
ULM-6089	<b>O,S-Dimethyl thiophosphate, sodium salt (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>3</sub> PS		Inquire
<b>NEW</b> DLM-7183	<b>Disulfoton (O,O-diethyl-D<sub>10</sub>,98%)</b>	C <sub>8</sub> D <sub>10</sub> H <sub>9</sub> O <sub>2</sub> PS <sub>3</sub>		Inquire
CLM-6090	<b>Ethyl dimethylamidophosphate, sodium salt (<sup>13</sup>C,<sub>4</sub>,99%)</b>	*C <sub>4</sub> H <sub>11</sub> NPO <sub>3</sub> Na		Inquire
ULM-6091-1.2	<b>Ethyl dimethylamidophosphate, sodium salt (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> PNa	1000 µg/mL in Methanol	1.2 mL
DLM-6098-1.2	<b>Ethyl methylphosphonate (ethyl-D<sub>5</sub>,98%)</b>	C <sub>3</sub> H <sub>4</sub> D <sub>5</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
ERE-024	<b>Ethyl methylphosphonic acid (unlabeled)</b>	C <sub>3</sub> H <sub>9</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
DLM-2878-0.01	<b>Fenitrothion (O,O-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>9</sub> D <sub>6</sub> H <sub>6</sub> NO <sub>5</sub> PS	Neat	10 mg
CLM-4545-1.2	<b>Fonofos (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>15</sub> OPS <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6694-1.2	<b>Fonofos (unlabeled)</b>	CH <sub>2</sub> CH <sub>3</sub> P(S)(OCH <sub>2</sub> CH <sub>3</sub> )(SC <sub>6</sub> H <sub>5</sub> )	100 µg/mL in Nonane	1.2 mL
CNLM-4666-1.2	<b>Glyphosate (2-<sup>13</sup>C,<sub>99%</sub>; <sup>15</sup>N,<sub>98+</sub>%)</b>	HOO*CCH <sub>2</sub> *NHCH <sub>2</sub> PO(OH) <sub>2</sub>	100 µg/mL in Water	1.2 mL
<b>NEW</b> CNLM-4666-10	<b>Glyphosate (2-<sup>13</sup>C,<sub>99%</sub>; <sup>15</sup>N,<sub>98+</sub>%)</b>	HOO*CCH <sub>2</sub> *NHCH <sub>2</sub> PO(OH) <sub>2</sub>	100 µg/mL in Water	10 mL
ULM-6876-1.2	<b>Glyphosate (unlabeled)</b>	HOOCCH <sub>2</sub> NHCH <sub>2</sub> PO(OH) <sub>2</sub>	100 µg/mL in Water	1.2 mL

## Organophosphate (OP) Pesticide and Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> ERI-026	<b>Isobutyl hydrogen methylphosphonate (unlabeled)</b>	C <sub>5</sub> H <sub>13</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERI-015	<b>Isopropyl methylphosphonic acid (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
DLM-4476-1.2	<b>Malathion (D<sub>10</sub>,99%)</b>	C <sub>10</sub> D <sub>10</sub> H <sub>9</sub> O <sub>6</sub> PS <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8122-1.2	<b>Malathion (unlabeled)</b>	C <sub>10</sub> H <sub>15</sub> O <sub>6</sub> PS <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> DLM-7149	<b>Methamidophos (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>2</sub> D <sub>6</sub> H <sub>2</sub> NO <sub>2</sub> PS		Inquire
DLM-6196-1.2	<b>Methylphosphonic acid (methyl-D<sub>3</sub>, 98%)</b>	CD <sub>3</sub> H <sub>2</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
CDLM-6100-1.2	<b>Methylphosphonic acid (<sup>13</sup>C,99%;methyl-D<sub>3</sub>,98%)</b>	*CD <sub>3</sub> H <sub>2</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
ERM-038	<b>Methylphosphonic acid (unlabeled)</b>	CH <sub>3</sub> P(O)(OH) <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
<b>NEW</b> DLM-7150-1.2	<b>Oxydemeton methyl (O,O-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>6</sub> D <sub>6</sub> H <sub>9</sub> O <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8579-1.2	<b>Oxydemeton methyl (unlabeled)</b>	C <sub>6</sub> H <sub>15</sub> O <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
DLM-2970-1.2	<b>Parathion (diethyl-D<sub>10</sub>,98%)</b>	NO <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> )OP(=S)(OC <sub>2</sub> D <sub>5</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8144-1.2	<b>Parathion (unlabeled)</b>	NO <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> )OP(=S)(OC <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-4544-1.2	<b>Phorate (diethoxy-<sup>13</sup>C<sub>4</sub>,99%)</b>	(*C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> P(S)SCH <sub>2</sub> SC <sub>2</sub> H <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7567-1.2	<b>Phorate (unlabeled)</b>	(C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> P(S)SCH <sub>2</sub> SC <sub>2</sub> H <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
DLM-4667-1.2	<b>Phosmet (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>11</sub> D <sub>6</sub> H <sub>6</sub> NO <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8454-1.2	<b>Phosmet (unlabeled)</b>	C <sub>11</sub> H <sub>12</sub> NO <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
ERP-083	<b>Pinacolyl methylphosphonic acid (unlabeled)</b>	C <sub>7</sub> H <sub>17</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
CLM-4543	<b>Terbufos (diethoxy-<sup>13</sup>C<sub>4</sub>,99%)</b>	C(CH <sub>3</sub> ) <sub>3</sub> SCH <sub>2</sub> SP(S)(O*CH <sub>2</sub> *CH <sub>3</sub> ) <sub>2</sub>		Inquire
CLM-6620-1.2	<b>1,2,2-Trimethylpropyl hydrogen methylphosphonate (trimethylpropyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> CH <sub>17</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL

## Carbamate Pesticide and Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-7140	<b>Bendiocarb (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>8</sub> H <sub>13</sub> NO <sub>4</sub>		Inquire
NEW	ULM-8638	<b>Bendiocarb (unlabeled)</b>	C <sub>11</sub> H <sub>13</sub> NO <sub>4</sub>		Inquire
	CLM-4682-1.2	<b>Carbaryl (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>11</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8096-1.2	<b>Carbaryl (unlabeled)</b>	C <sub>10</sub> H <sub>7</sub> CO <sub>2</sub> NHCH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-1911-1.2	<b>Carbofuran (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>15</sub> NO <sub>3</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
NEW	ULM-7419-1.2	<b>Carbofuran (unlabeled)</b>	C <sub>12</sub> H <sub>15</sub> NO <sub>3</sub>	100 µg/mL in <i>p</i> -Dioxane	1.2 mL
NEW	CLM-1859-1.2	<b>Carbofuran phenol (ring-<sup>13</sup>C<sub>6</sub>,98%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>12</sub> O <sub>2</sub>	200 µg/mL in Nonane	1.2 mL
	ULM-6875-1.2	<b>Carbofuran phenol (unlabeled)</b>	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	200 µg/mL in Nonane	1.2 mL
NEW	CNLM-7148-1.2	<b>Methomyl (acetohydroxamate-<sup>13</sup>C<sub>2</sub>,99%;<sup>15</sup>N 98%)</b>	*C <sub>2</sub> C <sub>3</sub> H <sub>10</sub> N*NO <sub>2</sub> S	100 µg/mL in Methanol	1.2 mL
NEW	ULM-8639-1.2	<b>Methomyl (unlabeled)</b>	C <sub>5</sub> H <sub>10</sub> NNO <sub>2</sub> S	100 µg/mL in Methanol	1.2 mL
NEW	DLM-7141	<b>Propoxur (isopropyl-D<sub>7</sub>,98%)</b>	C <sub>11</sub> D <sub>7</sub> H <sub>8</sub> NO <sub>3</sub>		Inquire

## Pyrethroid Pesticide and Metabolite Standards

	CLM-7293-1.2	<b>Cyfluthrin (mix of stereoisomers) (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>16</sub> H <sub>19</sub> Cl <sub>2</sub> NO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7454-1.2	<b>Cyfluthrin (mix of stereoisomers) (unlabeled)</b>	C <sub>22</sub> H <sub>18</sub> Cl <sub>2</sub> FNO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-7292-1.2	<b>Cypermethrin (mix of stereoisomers) (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>16</sub> Cl <sub>2</sub> NO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7453-1.2	<b>Cypermethrin (mix of stereoisomers) (unlabeled)</b>	C <sub>22</sub> H <sub>19</sub> Cl <sub>2</sub> NO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
NEW	CDLM-6002-1.2	<b>DCCA (3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid) (carboxyl-<sup>13</sup>C<sub>2</sub>,99%;1-D,98%)</b>	*C <sub>2</sub> C <sub>6</sub> H <sub>9</sub> DCl <sub>2</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
NEW	ULM-7303-1.2	<b>DCCA (3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid) (unlabeled)</b>	C <sub>8</sub> H <sub>9</sub> HCl <sub>2</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-7389-1.2	<b>4-Fluoro-3-phenoxybenzoic acid (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>7</sub> H <sub>9</sub> FO <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7391-1.2	<b>4-Fluoro-3-phenoxybenzoic acid (unlabeled)</b>	C <sub>13</sub> H <sub>9</sub> FO <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
	CLM-7322-1.2	<b><i>cis</i>-Permethrin (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8526-1.2	<b><i>cis</i>-Permethrin (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
	CLM-7323-1.2	<b><i>trans</i>-Permethrin (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8527-1.2	<b><i>trans</i>-Permethrin (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
NEW	CLM-4542-1.2	<b>3-Phenoxybenzoic acid (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
NEW	CLM-4542-SA-1.2	<b>3-Phenoxybenzoic acid (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-6781-1.2	<b>3-Phenoxybenzoic acid (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
NEW	ULM-6781-SA-1.2	<b>3-Phenoxybenzoic acid (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL



## Triazine Herbicide and Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-3737-1.2	<b>Atrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	(CH <sub>3</sub> ) <sub>2</sub> CHNH(*C <sub>3</sub> N <sub>3</sub> Cl)NHCH <sub>2</sub> CH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1149-1.2	<b>Atrazine (ethylamine-D<sub>5</sub>,98%)</b>	(CH <sub>3</sub> ) <sub>2</sub> CHNH(C <sub>3</sub> N <sub>3</sub> Cl)NHCD <sub>2</sub> CD <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7235-1.2	<b>Atrazine (unlabeled)</b>	(CH <sub>3</sub> ) <sub>2</sub> CHNH(C <sub>3</sub> N <sub>3</sub> Cl)NHCH <sub>2</sub> CH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3894-1.2	<b>Atrazine mercapturate (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>10</sub> H <sub>22</sub> N <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7346-1.2	<b>Atrazine mercapturate (unlabeled)</b>	C <sub>13</sub> H <sub>22</sub> N <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8311-1.2	<b>Atrazinethiol (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)*C <sub>3</sub> N <sub>3</sub> (SH)(NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8318-1.2	<b>Atrazinethiol (unlabeled)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)C <sub>3</sub> N <sub>3</sub> (SH)(NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8313-1.2	<b>Desethylatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b> (CP: 97%)	(CH <sub>3</sub> ) <sub>2</sub> CHNH(*C <sub>3</sub> N <sub>3</sub> Cl)NH <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8320-1.2	<b>Desethylatrazine (unlabeled)</b>	(CH <sub>3</sub> ) <sub>2</sub> CHNH(C <sub>3</sub> N <sub>3</sub> Cl)NH <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-7528-1.2	<b>Desethyl desisopropyl atrazine (<sup>13</sup>C<sub>3</sub>,99%)</b> (CP: 95%)	*C <sub>3</sub> H <sub>4</sub> ClN <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8001-1.2	<b>Desethyl desisopropyl atrazine (unlabeled)</b>	C <sub>3</sub> H <sub>4</sub> ClN <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8316-1.2	<b>Desethyl desisopropyl-hydroxyatrazine (Ammeline) (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	NH <sub>2</sub> (*C <sub>3</sub> N <sub>3</sub> OH)NH <sub>2</sub>	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b> ULM-8323-1.2	<b>Desethyl desisopropyl-hydroxyatrazine (Ammeline) (unlabeled)</b>	NH <sub>2</sub> (C <sub>3</sub> N <sub>3</sub> OH)NH <sub>2</sub>	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b> CLM-8315-1.2	<b>Desethylhydroxyatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	(CH <sub>2</sub> N)*C <sub>3</sub> N <sub>3</sub> (OH)(NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in 80% Water/ 20% Diethylamine	1.2 mL
<b>NEW</b> ULM-8322-1.2	<b>Desethylhydroxyatrazine (unlabeled)</b>	(CH <sub>2</sub> N)C <sub>3</sub> N <sub>3</sub> (OH)(NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in 80% Water/ 20% Diethylamine	1.2 mL
<b>NEW</b> CLM-8312-1.2	<b>Desisopropylatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	CH <sub>3</sub> CH <sub>2</sub> NH(*C <sub>3</sub> N <sub>3</sub> Cl)NH <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8319-1.2	<b>Desisopropylatrazine (unlabeled)</b>	CH <sub>3</sub> CH <sub>2</sub> NH(C <sub>3</sub> N <sub>3</sub> Cl)NH <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8314-1.2	<b>Desisopropylhydroxyatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)*C <sub>3</sub> N <sub>3</sub> (OH)(NH <sub>2</sub> )	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8321-1.2	<b>Desisopropylhydroxyatrazine (unlabeled)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)C <sub>3</sub> N <sub>3</sub> (OH)(NH <sub>2</sub> )	100 µg/mL in 80% Water/ 20% Diethylamine	1.2 mL
<b>NEW</b> CLM-8310-1.2	<b>Hydroxyatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)*C <sub>3</sub> N <sub>3</sub> (OH)(NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in 80% Water/ 20% Diethylamine	1.2 mL
<b>NEW</b> ULM-8317-1.2	<b>Hydroxyatrazine (unlabeled)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)C <sub>3</sub> N <sub>3</sub> (OH)(NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in 80% Water/ 20% Diethylamine	1.2 mL
CLM-3738-1.2	<b>Propazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>6</sub> H <sub>16</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL
CLM-3739-1.2	<b>Simazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>4</sub> H <sub>12</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-7893-1.2	<b>Simazine (unlabeled)</b>	C <sub>7</sub> H <sub>12</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL

## Toxaphene Standards

<b>NEW</b> CLM-7930-1.2	<b>Parlar 26 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>10</sub> Cl <sub>8</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7828-1.2	<b>Parlar 26 (unlabeled)</b>	C <sub>10</sub> H <sub>10</sub> Cl <sub>8</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8705-1.2	<b>Parlar 32 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8665-1.2	<b>Parlar 32 (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8719-1.2	<b>Parlar 39 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8767-1.2	<b>Parlar 39 (unlabeled)</b>	C <sub>10</sub> H <sub>11</sub> Cl <sub>7</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7931-1.2	<b>Parlar 50 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7829-1.2	<b>Parlar 50 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7932-1.2	<b>Parlar 62 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7830-1.2	<b>Parlar 62 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8720-1.2	<b>Parlar 69 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8768-1.2	<b>Parlar 69 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8721-1.2	<b>Parlar 70 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8769-1.2	<b>Parlar 70 (unlabeled)</b>	C <sub>10</sub> H <sub>9</sub> Cl <sub>9</sub>	10 µg/mL in Nonane	1.2 mL

See page 211 for mixtures containing Toxaphene congeners.

## Individual Pesticide and Pesticide Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-6000-1.2	<b>Acephate (D<sub>6</sub>,98%)</b>	C <sub>4</sub> D <sub>6</sub> H <sub>4</sub> NO <sub>3</sub> PS	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-7263-1.2	<b>Acephate (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> NO <sub>3</sub> PS	100 µg/mL in Acetonitrile	1.2 mL
CLM-3727-1.2	<b>Alachlor (ring-<sup>13</sup>C<sub>6</sub>,99%)</b> (CP: 96%)	*C <sub>6</sub> C <sub>8</sub> H <sub>20</sub> ClNO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-3687-1.2	<b>Alachlor acetylcysteine adduct (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>13</sub> H <sub>28</sub> N <sub>2</sub> O <sub>5</sub> S	100 µg/mL in Acetonitrile	1.2 mL
CLM-4725-1.2	<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7441-1.2	<b>Aldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3737-1.2	<b>Atrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>3</sub> H <sub>14</sub> ClN <sub>5</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1149-1.2	<b>Atrazine (ethylamine-D<sub>5</sub>,98%)</b>	C <sub>8</sub> H <sub>9</sub> D <sub>5</sub> ClN <sub>5</sub>	100 µg/mL in Nonane	1.2 mL
DLM-1149-5	<b>Atrazine (ethylamine-D<sub>5</sub>,98%)</b>	C <sub>8</sub> H <sub>9</sub> D <sub>5</sub> ClN <sub>5</sub>	Neat	5 mg
ULM-7235-1.2	<b>Atrazine (unlabeled)</b>	C <sub>8</sub> H <sub>14</sub> ClN <sub>5</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3894-1.2	<b>Atrazine mercapturate (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>10</sub> H <sub>22</sub> N <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7346-1.2	<b>Atrazine mercapturate (unlabeled)</b>	C <sub>13</sub> H <sub>22</sub> N <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-8311-1.2	<b>Atrazinethiol (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>3</sub> H <sub>15</sub> N <sub>5</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8318-1.2	<b>Atrazinethiol (unlabeled)</b>	C <sub>8</sub> H <sub>15</sub> N <sub>5</sub> S	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-7140	<b>Bendiocarb (<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>8</sub> H <sub>13</sub> NO <sub>4</sub>	Inquire	
<b>NEW</b> DLM-7152	<b>Bensulide (isopropoxy-D<sub>14</sub>,98%)</b>	C <sub>14</sub> D <sub>14</sub> H <sub>10</sub> NO <sub>4</sub> PS <sub>3</sub>	Inquire	
CLM-2482-1.2	<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7232-1.2	<b>α-BHC (α-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3623-1.2	<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	50 µg/mL in Nonane	2 x 1.2 mL
ULM-6132-1.2	<b>β-BHC (β-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	2 x 1.2 mL
ULM-6132-SM-1.2	<b>β-BHC (β-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Methanol	1.2 mL
CDLM-624-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%;D<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1282-1.2	<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6133-1.2	<b>γ-BHC (γ-HCH) (Lindane) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6133-SM-1.2	<b>γ-BHC (γ-HCH) (Lindane) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Methanol	1.2 mL
CLM-3648-1.2	<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7233-1.2	<b>δ-BHC (δ-HCH) (unlabeled)</b>	C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
CLM-3741-1.2	<b>Bromoxynil (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> CH <sub>3</sub> Br <sub>2</sub> NO	50 µg/mL in Nonane	2 x 1.2 mL
ULM-6205-1.2	<b>Bromoxynil (unlabeled)</b>	C <sub>7</sub> H <sub>3</sub> Br <sub>2</sub> NO	50 µg/mL in Nonane	1.2 mL
CLM-4682-1.2	<b>Carbaryl (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>11</sub> NO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8096-1.2	<b>Carbaryl (unlabeled)</b>	C <sub>10</sub> H <sub>7</sub> CO <sub>2</sub> NHCH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
CLM-1911-1.2	<b>Carbofuran (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>15</sub> NO <sub>3</sub>	100 µg/mL in 1,4-Dioxane	1.2 mL
ULM-7419-1.2	<b>Carbofuran (unlabeled)</b>	C <sub>12</sub> H <sub>15</sub> NO <sub>3</sub>	100 µg/mL in 1,4-Dioxane	1.2 mL
<b>NEW</b> CLM-1859-1.2	<b>Carbofuran phenol (ring-<sup>13</sup>C<sub>6</sub>,98%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>12</sub> O <sub>2</sub>	200 µg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-6875-1.2	<b>Carbofuran phenol (unlabeled)</b>	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	200 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8087-1.2	<b>cis-Chlordane (α) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2419-25	<b>cis-Chlordane (α) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
CLM-4792-1.2	<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2420-25	<b>trans-Chlordane (γ) (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>8</sub>	Neat	25 mg
<b>NEW</b> CLM-4814-1.2	<b>Chlordecone (Kepone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-2301-1.2	<b>Chlordecone (Kepone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-2301-0.1	<b>Chlordecone (Kepone) (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	Neat	0.1 g
CLM-4758-1.2	<b>Chlordene (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7443-1.2	<b>Chlordene (unlabeled)</b>	C <sub>10</sub> H <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-6759	<b>4-Chloro-2-hydroxymethyl phenoxyacetic acid (HMCPA) (ring-<sup>13</sup>C<sub>6</sub>, 99%)</b>	ClOH*C <sub>6</sub> H <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H		Inquire
<b>NEW</b> CLM-6758	<b>4-Chloro-2-methylphenoxyacetic acid (MCPA) (ring-<sup>13</sup>C<sub>6</sub>, 99%)</b>	ClCH <sub>3</sub> *C <sub>6</sub> H <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H		Inquire

## Individual Pesticide and Pesticide Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b>	CLM-1913-1.2	<b>4-Chlorophenol (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> H <sub>4</sub> ClOH	100 µg/mL in Nonane	1.2 mL
	ULM-7420-1.2	<b>4-Chlorophenol (unlabeled)</b>	C <sub>6</sub> H <sub>4</sub> ClOH	100 µg/mL in Nonane	1.2 mL
	DLM-4360-1.2	<b>Chlorpyrifos (diethyl-D<sub>10</sub>,99%)</b>	C <sub>9</sub> D <sub>10</sub> HCl <sub>3</sub> NO <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7489-1.2	<b>Chlorpyrifos (unlabeled)</b>	C <sub>9</sub> H <sub>11</sub> Cl <sub>3</sub> NO <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	DLM-7153	<b>Chlorpyrifos methyl (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>7</sub> HCl <sub>3</sub> D <sub>6</sub> NO <sub>3</sub> PS		Inquire
	DLM-3760-0.01	<b>Chlortoluron (N,N-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>10</sub> H <sub>7</sub> D <sub>6</sub> ClN <sub>2</sub> O	Neat	10 mg
	ERC-034	<b>Cyclohexyl methylphosphonic acid (unlabeled)</b>	CH <sub>3</sub> PO <sub>3</sub> HC <sub>6</sub> H <sub>11</sub>	1000 µg/mL in Methanol	1.2 mL
	CLM-7293-1.2	<b>Cyfluthrin, mix of stereoisomers (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>16</sub> H <sub>18</sub> Cl <sub>2</sub> FNO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7454-1.2	<b>Cyfluthrin, mix of stereoisomers (unlabeled)</b>	C <sub>22</sub> H <sub>18</sub> Cl <sub>2</sub> FNO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-7292-1.2	<b>Cypermethrin, mix of stereoisomers (phenoxy-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>16</sub> H <sub>19</sub> Cl <sub>2</sub> NO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	ULM-7453-1.2	<b>Cypermethrin, mix of stereoisomers (unlabeled)</b>	C <sub>22</sub> H <sub>19</sub> Cl <sub>2</sub> NO <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-6999-1.2	<b>2,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%) [(o,p'-Dichlorodiphenyl) dichloroethane]</b>	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	50 µg/mL in Nonane	1.2 mL
	ULM-7450-1.2	<b>2,4'-DDD (unlabeled) [(o,p'-Dichlorodiphenyl) dichloroethane]</b>	C <sub>14</sub> H <sub>10</sub> Cl <sub>4</sub>	50 µg/mL in Nonane	1.2 mL
	CLM-7100-1.2	<b>4,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%) [(o,p'-Dichlorodiphenyl) dichloroethane]</b>	*C <sub>12</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
	DLM-3533-1.2	<b>4,4'-DDD (ring-D<sub>8</sub>,98%) [(p,p'-Dichlorodiphenyl) dichloroethane]</b>	C <sub>14</sub> D <sub>8</sub> H <sub>2</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
	ULM-7216-1.2	<b>4,4'-DDD (unlabeled) [(p,p'-Dichlorodiphenyl) dichloroethane]</b>	C <sub>14</sub> H <sub>10</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-4693-1.2	<b>2,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%) [(o,p'-Dichlorodiphenyl) dichloroethylene]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
	ULM-6251-1.2	<b>2,4'-DDE (unlabeled) [(o,p'-Dichlorodiphenyl) dichloroethylene]</b>	C <sub>14</sub> H <sub>8</sub> Cl <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-1627-1.2	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%) [(p,p'-Dichlorodiphenyl) dichloroethylene]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-1627-5	<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%) [(p,p'-Dichlorodiphenyl) dichloroethylene]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	Neat	5 mg
	ULM-6137-1.2	<b>4,4'-DDE (unlabeled) [(p,p'-Dichlorodiphenyl) dichloroethylene]</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> C=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-4692-1.2	<b>2,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%) [(o,p'-Dichlorodiphenyl) trichloroethane]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	ULM-6134-1.2	<b>2,4'-DDT (unlabeled) [(o,p'-Dichlorodiphenyl) trichloroethane]</b>	ClC <sub>6</sub> H <sub>4</sub> CH(CCl <sub>3</sub> )C <sub>6</sub> H <sub>4</sub> Cl	100 µg/mL in Nonane	1.2 mL
	CLM-1281-1.2	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%) [(p,p'-Dichlorodiphenyl) trichloroethane]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-1281-5	<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%) [(p,p'-Dichlorodiphenyl) trichloroethane]</b>	(Cl*C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	Neat	5 mg
	ULM-6135-1.2	<b>4,4'-DDT (unlabeled) [(p,p'-Dichlorodiphenyl) trichloroethane]</b>	(ClC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b>	CLM-8313-1.2	<b>Desethylatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%) (CP: 97%)</b>	*C <sub>3</sub> C <sub>3</sub> H <sub>10</sub> ClN <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b>	ULM-8320-1.2	<b>Desethylatrazine (unlabeled)</b>	C <sub>6</sub> H <sub>10</sub> ClN <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b>	CLM-8316-1.2	<b>Desethyl-desisopropylhydroxyatrazine (Ammeline) (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> H <sub>5</sub> N <sub>5</sub> O	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b>	ULM-8323-1.2	<b>Desethyl-desisopropylhydroxyatrazine (Ammeline) (unlabeled)</b>	C <sub>3</sub> H <sub>5</sub> N <sub>5</sub> O	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b>	CLM-8315-1.2	<b>Desethylhydroxyatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	C <sub>3</sub> *C <sub>3</sub> H <sub>11</sub> N <sub>5</sub> O	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b>	ULM-8322-1.2	<b>Desethylhydroxyatrazine (unlabeled)</b>	C <sub>6</sub> H <sub>11</sub> N <sub>5</sub> O	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL

## Individual Pesticide and Pesticide Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-8312-1.2	<b>Desisopropylatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>2</sub> H <sub>8</sub> ClN <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8319-1.2	<b>Desisopropylatrazine (unlabeled)</b>	C <sub>5</sub> H <sub>8</sub> ClN <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8314-1.2	<b>Desisopropylhydroxyatrazine (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*CC <sub>4</sub> H <sub>9</sub> N <sub>5</sub> O	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8321-1.2	<b>Desisopropylhydroxyatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	C <sub>5</sub> H <sub>9</sub> N <sub>5</sub> O	100 µg/mL in 80%H <sub>2</sub> O/ 20%Diethylamine	1.2 mL
	DLM-1148-1.2	<b>Diazinon (diethyl-D<sub>10</sub>,98%)</b>	C <sub>12</sub> H <sub>11</sub> D <sub>10</sub> N <sub>2</sub> O <sub>3</sub> PS	100 µg/mL in Nonane	1.2 mL
	DLM-1148-5	<b>Diazinon (diethyl-D<sub>10</sub>,98%)</b>	C <sub>12</sub> H <sub>11</sub> D <sub>10</sub> N <sub>2</sub> O <sub>3</sub> PS	Neat	5 mg
NEW	ULM-6575-S-10X-1.2	<b>Diazinon (unlabeled)</b>	C <sub>12</sub> H <sub>21</sub> N <sub>2</sub> O <sub>3</sub> PS	1000 µg/mL in Nonane	1.2 mL
	CLM-816-1.2	<b>2,6-Dichloro-4-nitroaniline (Dicloran) (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	Cl <sub>2</sub> *C <sub>6</sub> H <sub>2</sub> (NO <sub>2</sub> )NH <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-1858-1.2	<b>2,4-Dichlorophenoxyacetic acid (2,4-D) (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	Cl <sub>2</sub> *C <sub>6</sub> H <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL
	DLM-1146-5	<b>2,4-Dichlorophenoxyacetic acid (2,4-D) (ring-D<sub>3</sub>,98%)</b>	Cl <sub>2</sub> C <sub>6</sub> D <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H	Neat	5 mg
	ULM-7418-1.2	<b>2,4-Dichlorophenoxyacetic acid (2,4-D) (unlabeled)</b>	Cl <sub>2</sub> C <sub>6</sub> H <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL
NEW	CDLM-6002-1.2	<b>3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid (DCCA) (carboxyl-<sup>13</sup>C<sub>2</sub>,99%;1-D,98%)</b>	*C <sub>2</sub> C <sub>6</sub> H <sub>9</sub> DCl <sub>2</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
NEW	ULM-7303-1.2	<b>3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid (DCCA) (unlabeled)</b>	C <sub>8</sub> H <sub>9</sub> HCl <sub>2</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3722-1.2	<b>Dichlorprop (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>3</sub> H <sub>8</sub> Cl <sub>2</sub> O <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
	ULM-7313-1.2	<b>Dichlorprop (unlabeled)</b>	(Cl) <sub>2</sub> C <sub>6</sub> H <sub>3</sub> OCH(CH <sub>3</sub> )CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
	DLM-2829-0.01	<b>Dichlorvos (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>4</sub> D <sub>6</sub> HCl <sub>2</sub> O <sub>4</sub> P	Neat	10 mg
	ULM-7217-1.2	<b>Dichlorvos (unlabeled)</b>	(H <sub>3</sub> CO) <sub>2</sub> POOCH=CCl <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
	CLM-4726-1.2	<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
	ULM-7230-1.2	<b>Dieldrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
	ERD-117	<b>O,O-Diethyl dithiophosphate, potassium salt (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> KO <sub>2</sub> PS <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
	ERD-118	<b>Diethyl hydrogen phosphate (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> O <sub>4</sub> P	1000 µg/mL in Methanol	1.2 mL
	DLM-4852-1.2	<b>O,O-Diethyl thiophosphate, potassium salt (diethyl-D<sub>10</sub>,98%)</b>	C <sub>4</sub> D <sub>10</sub> KO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
	ERD-119	<b>O,O-Diethyl thiophosphate, potassium salt (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> KO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
NEW	ERD-155	<b>O,O-Dimethyl dithiophosphate, sodium salt (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>2</sub> PS <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
	ERD-121	<b>Dimethyl hydrogen phosphate (unlabeled)</b>	(CH <sub>3</sub> O) <sub>2</sub> P(O)OH	1000 µg/mL in Methanol	1.2 mL
	ULM-4617-1.2	<b>O,O-Dimethyl hydrogen thiophosphate (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
	ULM-6089	<b>O,S-Dimethyl thiophosphate, sodium salt (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>3</sub> PS		Inquire
NEW	DLM-4762-1.2	<b>N,N-Diethyl-m-toluamide (DEET) (dimethyl-D<sub>6</sub>,98%)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CD <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Methylene chloride-D <sub>2</sub>	1.2 mL
NEW	DLM-4762-D-1.2	<b>N,N-Diethyl-m-toluamide (DEET) (dimethyl-D<sub>6</sub>,98%)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CD <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Dioxane	1.2 mL
NEW	ULM-7975-1.2	<b>N,N-Diethyl-m-toluamide (DEET) (unlabeled)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7975-D-1.2	<b>N,N-Diethyl-m-toluamide (DEET) (unlabeled)</b>	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> CON(CH <sub>2</sub> CH <sub>3</sub> ) <sub>2</sub>	100 µg/mL in Dioxane	1.2 mL
NEW	DLM-7151-1.2	<b>Dimethoate (O,O-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>5</sub> D <sub>6</sub> H <sub>6</sub> NO <sub>3</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7972-1.2	<b>Dimethoate (unlabeled)</b>	C <sub>5</sub> H <sub>12</sub> NO <sub>3</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3373-1.2	<b>Dinocap (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>12</sub> H <sub>24</sub> N <sub>2</sub> O <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
NEW	DLM-7183	<b>Disulfoton (O,O-diethyl-D<sub>10</sub>,98%)</b>	C <sub>8</sub> D <sub>10</sub> H <sub>9</sub> O <sub>2</sub> PS <sub>3</sub>		Inquire

## Individual Pesticide and Pesticide Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-6025-1.2	<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
DLM-2862-1.2	<b>Endosulfan I (D<sub>4</sub>,97%)</b>	C <sub>9</sub> D <sub>4</sub> H <sub>2</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7447-1.2	<b>Endosulfan I (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-6026-1.2	<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
ULM-7448-1.2	<b>Endosulfan II (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>3</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-7531-1.2	<b>Endosulfan sulfate (<sup>13</sup>C<sub>9</sub>,99%)</b>	*C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-7990-1.2	<b>Endosulfan sulfate (unlabeled)</b>	C <sub>9</sub> H <sub>6</sub> Cl <sub>6</sub> O <sub>4</sub> S	100 µg/mL in Nonane	1.2 mL
CLM-4782-1.2	<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7444-1.2	<b>Endrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-4815-50	<b>Endrin aldehyde (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>10</sub> Cl <sub>6</sub> O	Neat	50 µg
CLM-4816-50	<b>Endrin ketone (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>10</sub> C <sub>2</sub> H <sub>8</sub> Cl <sub>6</sub> O	Neat	50 µg
ERE-024	<b>Ethyl methylphosphonic acid (unlabeled)</b>	C <sub>3</sub> H <sub>7</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
DLM-2878-0.01	<b>Fenitrothion (O,O-dimethyl-D<sub>6</sub>,98%)</b>	C <sub>9</sub> D <sub>6</sub> H <sub>6</sub> NO <sub>5</sub> PS	Neat	10 mg
<b>NEW</b> CLM-7389-1.2	<b>4-Fluoro-3-phenoxybenzoic acid (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>7</sub> H <sub>5</sub> FO <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7391-1.2	<b>4-Fluoro-3-phenoxybenzoic acid (unlabeled)</b>	C <sub>13</sub> H <sub>9</sub> FO <sub>3</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4545-1.2	<b>Fonofos (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>4</sub> H <sub>15</sub> OPS <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6694-1.2	<b>Fonofos (unlabeled)</b>	CH <sub>2</sub> CH <sub>3</sub> P(S)(OCH <sub>2</sub> CH <sub>3</sub> )(SC <sub>6</sub> H <sub>5</sub> )	100 µg/mL in Nonane	1.2 mL
CNLM-4666-1.2	<b>Glyphosate (2-<sup>13</sup>C,<sup>99%</sup>; <sup>15</sup>N,<sup>98%</sup>)</b>	HO <sub>2</sub> *CCH <sub>2</sub> *NHCH <sub>2</sub> PO(OH) <sub>2</sub>	100 µg/mL in H <sub>2</sub> O	1.2 mL
<b>NEW</b> CNLM-4666-10	<b>Glyphosate (2-<sup>13</sup>C,<sup>99%</sup>; <sup>15</sup>N,<sup>98%</sup>)</b>	HO <sub>2</sub> *CCH <sub>2</sub> *NHCH <sub>2</sub> PO(OH) <sub>2</sub>	100 µg/mL in H <sub>2</sub> O	10 mL
ULM-6876-1.2	<b>Glyphosate (unlabeled)</b>	HO <sub>2</sub> CCH <sub>2</sub> NHCH <sub>2</sub> PO(OH) <sub>2</sub>	100 µg/mL in H <sub>2</sub> O	1.2 mL
CLM-4759-1.2	<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-1.2	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2424-0.1	<b>Heptachlor (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub>	Neat	0.1 g
CLM-4734-1.2	<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-1.2	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2425-0.1	<b>cis-Heptachlor epoxide (B isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	Neat	0.1 g
<b>NEW</b> ULM-7869-1.2	<b>trans-Heptachlor epoxide (A isomer) (unlabeled)</b>	C <sub>10</sub> H <sub>5</sub> Cl <sub>7</sub> O	100 µg/mL in Nonane	1.2 mL
CLM-351-1.2	<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-6130-1.2	<b>Hexachlorobenzene (unlabeled)</b>	C <sub>6</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-8310-1.2	<b>Hydroxyatrazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)*C <sub>3</sub> N <sub>3</sub> (OH) (NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b> ULM-8317-1.2	<b>Hydroxyatrazine (unlabeled)</b>	(CH <sub>3</sub> CH <sub>2</sub> NH)C <sub>3</sub> N <sub>3</sub> (OH) (NHCH(CH <sub>3</sub> ) <sub>2</sub> )	100 µg/mL in 80% H <sub>2</sub> O/ 20% Diethylamine	1.2 mL
<b>NEW</b> DLM-8512-1.2	<b>Imidacloprid (4,4,5,5-D<sub>4</sub>,98%)</b>	C <sub>9</sub> H <sub>6</sub> D <sub>4</sub> ClN <sub>5</sub> O <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8513-1.2	<b>Imidacloprid (unlabeled)</b>	C <sub>9</sub> H <sub>10</sub> ClN <sub>5</sub> O <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
CLM-4727-1.2	<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	*C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7442-1.2	<b>Isodrin (unlabeled)</b>	C <sub>12</sub> H <sub>8</sub> Cl <sub>6</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ERI-026	<b>Isobutyl hydrogen methylphosphonate (unlabeled)</b>	C <sub>5</sub> H <sub>13</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERI-015	<b>Isopropyl methylphosphonic acid (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
CLM-4814-1.2	<b>Kepone (Chlordecone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2301-1.2	<b>Kepone (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-2301-0.1	<b>Kepone (unlabeled)</b>	C <sub>10</sub> Cl <sub>10</sub> O	Neat	0.1 g
DLM-4476-1.2	<b>Malathion (D<sub>10</sub>,99%)</b>	C <sub>10</sub> D <sub>10</sub> H <sub>9</sub> O <sub>6</sub> PS <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-8122-1.2	<b>Malathion (unlabeled)</b>	(CH <sub>3</sub> O) <sub>2</sub> P=SSCH(CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub> ) CH <sub>2</sub> CO <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> DLM-7149	<b>Methamidophos (dimethyl-D<sub>6</sub>,98%)</b>	C <sub>2</sub> D <sub>6</sub> H <sub>2</sub> NO <sub>2</sub> PS		Inquire



## Individual Pesticide and Pesticide Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
<b>NEW</b> CNLM-7148-1.2	<b>Methomyl</b> (acetohydroxamate- <sup>13</sup> C <sub>2</sub> ,99%; <sup>15</sup> N 98%)	*C <sub>2</sub> C <sub>3</sub> H <sub>10</sub> N*NO <sub>2</sub> S	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-8639-1.2	<b>Methomyl (unlabeled)</b>	C <sub>5</sub> H <sub>10</sub> NNO <sub>2</sub> S	100 µg/mL in Methanol	1.2 mL
CLM-4683-1.2	<b>Methoxychlor (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	(*C <sub>6</sub> OC) <sub>2</sub> C <sub>2</sub> Cl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7440-1.2	<b>Methoxychlor (unlabeled)</b>	(CH <sub>3</sub> OC <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> CHCl <sub>3</sub>	100 µg/mL in Nonane	1.2 mL
DLM-6196-1.2	<b>Methylphosphonic acid</b> (methyl-D <sub>3</sub> , 98%)	CD <sub>3</sub> P(O)(OH) <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
ERM-038	<b>Methylphosphonic acid</b> (unlabeled)	CH <sub>3</sub> P(O)(OH) <sub>2</sub>	100 µg/mL in Methanol	1.2 mL
CLM-3712-1.2	<b>Metolachlor (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>9</sub> H <sub>22</sub> CINO <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7314-1.2	<b>Metolachlor</b> (unlabeled)	CH <sub>3</sub> CH <sub>2</sub> (CH <sub>3</sub> ) <sub>2</sub> N(COCHCl) CH(CH <sub>3</sub> CH <sub>2</sub> OCH <sub>3</sub> )	100 µg/mL in Nonane	1.2 mL
CLM-4813-1.2	<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> Cl <sub>11</sub>	100 µg/mL in Nonane	1.2 mL
CLM-2078-1	<b>Mirex (<sup>13</sup>C<sub>8</sub>,99%)</b>	*C <sub>8</sub> C <sub>2</sub> Cl <sub>12</sub>	200 µg/mL in Toluene	1 mL
ULM-2427-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Nonane	1.2 mL
ULM-2427-SM-1.2	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	100 µg/mL in Methanol	1.2 mL
ULM-2427-0.1	<b>Mirex (unlabeled)</b>	C <sub>10</sub> Cl <sub>12</sub>	Neat	0.1 g
CLM-4811-1.2	<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7445-1.2	<b>cis-Nonachlor (unlabeled)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4735-1.2	<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7229-1.2	<b>trans-Nonachlor (unlabeled)</b>	*C <sub>10</sub> H <sub>5</sub> Cl <sub>9</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4729-1.2	<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	*C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-1.2	<b>Oxychlordane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-6139-SM-1.2	<b>Oxychlordane (unlabeled)</b>	C <sub>10</sub> H <sub>4</sub> Cl <sub>8</sub> O	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> DLM-7150-1.2	<b>Oxydemeton methyl</b> (O,O-dimethyl-D <sub>6</sub> ,98%)	C <sub>6</sub> D <sub>6</sub> H <sub>9</sub> O <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8579-1.2	<b>Oxydemeton methyl (unlabeled)</b>	C <sub>6</sub> H <sub>15</sub> O <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4538-1.2	<b>Oxypyrimidine</b> (Diazinon Metabolite) (methyl,4,5,6- <sup>13</sup> C <sub>4</sub> ,99%)	*C <sub>4</sub> C <sub>4</sub> H <sub>12</sub> N <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
ULM-7432-1.2	<b>Oxypyrimidine (unlabeled)</b>	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O	100 µg/mL in Acetonitrile	1.2 mL
DLM-2970-1.2	<b>Parathion (diethyl-D<sub>10</sub>,98%)</b>	C <sub>10</sub> D <sub>10</sub> H <sub>4</sub> NO <sub>5</sub> PS	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8144-1.2	<b>Parathion (unlabeled)</b>	NO <sub>2</sub> (C <sub>6</sub> H <sub>4</sub> )OP(=S)(OC <sub>2</sub> H <sub>5</sub> ) <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-7322-1.2	<b>cis-Permethrin</b> (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8526-1.2	<b>cis-Permethrin (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
CLM-7323-1.2	<b>trans-Permethrin</b> (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-8527-1.2	<b>trans-Permethrin (unlabeled)</b>	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> CO <sub>2</sub> C <sub>7</sub> H <sub>9</sub> Cl <sub>2</sub> O <sub>3</sub>	50 µg/mL in Nonane	1.2 mL
CLM-3733-1.2	<b>o-Phenylphenol (phenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>10</sub> O	100 µg/mL in Nonane	1.2 mL
ULM-7396-1.2	<b>o-Phenylphenol (unlabeled)</b>	C <sub>12</sub> H <sub>9</sub> OH	100 µg/mL in Nonane	1.2 mL
CLM-3748-1.2	<b>p-Phenylphenol (phenyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>6</sub> H <sub>10</sub> O	100 µg/mL in Acetonitrile	1.2 mL
CLM-4542-1.2	<b>3-Phenoxybenzoic acid</b> (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%) (Permethrin metabolite)	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> CLM-4542-SA-1.2	<b>3-Phenoxybenzoic acid</b> (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	*C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL
ULM-6781-1.2	<b>3-Phenoxybenzoic acid</b> (unlabeled)	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Nonane	1.2 mL
<b>NEW</b> ULM-6781-SA-1.2	<b>3-Phenoxybenzoic acid</b> (unlabeled)	C <sub>6</sub> H <sub>5</sub> OC <sub>6</sub> H <sub>4</sub> CO <sub>2</sub> H	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> CLM-4544-1.2	<b>Phorate (diethoxy-<sup>13</sup>C<sub>4</sub>,99%)</b>	(*C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> P(S)SCH <sub>2</sub> SC <sub>2</sub> H <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-7567-1.2	<b>Phorate (unlabeled)</b>	(C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> P(S)SCH <sub>2</sub> SC <sub>2</sub> H <sub>5</sub>	100 µg/mL in Acetonitrile	1.2 mL
DLM-4667-1.2	<b>Phosmet (dimethyl-D<sub>6</sub>, 98%)</b>	C <sub>11</sub> H <sub>6</sub> D <sub>6</sub> NO <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ULM-8454-1.2	<b>Phosmet (unlabeled)</b>	C <sub>11</sub> H <sub>12</sub> NO <sub>4</sub> PS <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-3738-1.2	<b>Propazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>6</sub> H <sub>16</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> DLM-7141	<b>Propoxur (isopropyl-D<sub>7</sub>,98%)</b>	C <sub>11</sub> D <sub>7</sub> H <sub>8</sub> NO <sub>3</sub>		Inquire

## Individual Pesticide and Pesticide Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CLM-3739-1.2	<b>Simazine (ring-<sup>13</sup>C<sub>3</sub>,99%)</b>	*C <sub>3</sub> C <sub>4</sub> H <sub>12</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL
<b>NEW</b> ULM-7893-1.2	<b>Simazine (unlabeled)</b>	C <sub>7</sub> H <sub>12</sub> ClN <sub>5</sub>	100 µg/mL in Methanol	1.2 mL
DLM-380-1.2	<b>Styrene (D<sub>8</sub>,98%) + BHT</b>	C <sub>6</sub> D <sub>5</sub> CD=CD <sub>2</sub>	100 µg/mL in Nonane	1.2 mL
CLM-4543	<b>Terbufos (diethoxy-<sup>13</sup>C<sub>4</sub>,99%)</b>	C(CH <sub>3</sub> ) <sub>3</sub> SCH <sub>2</sub> SP(S)(O*CH <sub>2</sub> *CH <sub>3</sub> ) <sub>2</sub>		Inquire
CLM-4551-1.2	<b>2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (ring-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> C <sub>2</sub> H <sub>5</sub> Cl <sub>3</sub> O <sub>3</sub>	100 µg/mL in Methylene chloride	1.2 mL
ULM-7213-1.2	<b>2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (unlabeled)</b>	C <sub>6</sub> H <sub>2</sub> Cl <sub>3</sub> OCH <sub>2</sub> CO <sub>2</sub> H	100 µg/mL in Methylene chloride	1.2 mL
DLM-4479-1.2	<b>Trifluralin (di-<i>n</i>-propyl-D<sub>14</sub>,98%)</b>	C <sub>13</sub> D <sub>14</sub> H <sub>2</sub> F <sub>3</sub> N <sub>3</sub> O <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
ULM-7236-1.2	<b>Trifluralin (unlabeled)</b>	C <sub>13</sub> H <sub>14</sub> H <sub>2</sub> F <sub>3</sub> N <sub>3</sub> O <sub>4</sub>	100 µg/mL in Nonane	1.2 mL
CLM-6620-1.2	<b>1,2,2-Trimethylpropyl hydrogen methylphosphonate (trimethylpropyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> CH <sub>17</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
DLM-6861-1.2	<b>Warfarin (phenyl-D<sub>5</sub>,98%)</b>	C <sub>19</sub> H <sub>11</sub> D <sub>5</sub> O <sub>4</sub>	100 µg/mL in Acetonitrile-D <sub>3</sub>	1.2 mL
ULM-7242-1.2	<b>Warfarin (unlabeled)</b>	C <sub>19</sub> H <sub>16</sub> O <sub>4</sub>	100 µg/mL in Acetonitrile	1.2 mL



## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5464	<b>Expanded POPs Pesticides Calibration Solutions [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane
<b>NEW</b> ES-5464-CS1	<b>Expanded POPs Pesticides Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5464-CS2	<b>Expanded POPs Pesticides Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5464-CS3	<b>Expanded POPs Pesticides Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5464-CS4	<b>Expanded POPs Pesticides Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5464-CS5	<b>Expanded POPs Pesticides Calibration Solution [CS5]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5464-CS6	<b>Expanded POPs Pesticides Calibration Solution [CS6]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5	CS6
Hexachlorobenzene	0.4	2	10	40	200	800
Pentachlorobenzene	0.4	2	10	40	200	800
Aldrin	0.4	2	10	40	200	800
Dieldrin	0.4	2	10	40	200	800
Endrin	0.4	2	10	40	200	800
4,4'-DDT	0.4	2	10	40	200	800
4,4'-DDE	0.4	2	10	40	200	800
4,4'-DDD	0.4	2	10	40	200	800
2,4'-DDT	0.4	2	10	40	200	800
2,4'-DDE	0.4	2	10	40	200	800
2,4'-DDD	0.4	2	10	40	200	800
<i>trans</i> -Chlordane ( $\gamma$ )	0.4	2	10	40	200	800
<i>cis</i> -Chlordane ( $\alpha$ )	0.4	2	10	40	200	800
<i>trans</i> -Nonachlor	0.4	2	10	40	200	800
<i>cis</i> -Nonachlor	0.4	2	10	40	200	800
Oxychlordane	0.4	2	10	40	200	800
Heptachlor	0.4	2	10	40	200	800
<i>trans</i> -Heptachlor epoxide (A isomer)	0.4	2	10	40	200	800
<i>cis</i> -Heptachlor epoxide (B isomer)	0.4	2	10	40	200	800
Mirex	0.4	2	10	40	200	800
Kepone (Chlordecone)	0.4	2	10	40	200	800
$\alpha$ -BHC ( $\alpha$ -HCH)	0.4	2	10	40	200	800
$\beta$ -BHC ( $\beta$ -HCH)	0.4	2	10	40	200	800
$\gamma$ -BHC ( $\gamma$ -HCH) (Lindane)	0.4	2	10	40	200	800
$\delta$ -BHC ( $\delta$ -HCH)	0.4	2	10	40	200	800
Endosulfan I	0.4	2	10	40	200	800
Endosulfan II	0.4	2	10	40	200	800
Labeled						
Hexachlorobenzene ( $^{13}\text{C}_6, 99\%$ )	20	20	20	20	20	20
Pentachlorobenzene ( $^{13}\text{C}_6, 99\%$ )	20	20	20	20	20	20
Aldrin ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
Endrin ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
Dieldrin ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
4,4'-DDT ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
4,4'-DDE ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
4,4'-DDD ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
2,4'-DDT ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
2,4'-DDE ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
2,4'-DDD ( $^{13}\text{C}_{12}, 99\%$ )	20	20	20	20	20	20
<i>trans</i> -Chlordane ( $\gamma$ ) ( $^{13}\text{C}_{10}, 99\%$ )	20	20	20	20	20	20
<i>trans</i> -Nonachlor ( $^{13}\text{C}_{10}, 99\%$ )	20	20	20	20	20	20
<i>cis</i> -Nonachlor ( $^{13}\text{C}_{10}, 99\%$ )	20	20	20	20	20	20
Oxychlordane ( $^{13}\text{C}_{10}, 99\%$ )	20	20	20	20	20	20
Heptachlor ( $^{13}\text{C}_{10}, 99\%$ )	20	20	20	20	20	20
<i>cis</i> -Heptachlor epoxide ( $^{13}\text{C}_{10}, 99\%$ )	20	20	20	20	20	20

## Pesticide Standard Mixtures

	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>		20	20	20	20	20	20
<b>Kepone (Chlordecone) (<sup>13</sup>C<sub>10</sub>,99%)</b>		20	20	20	20	20	20
<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>		20	20	20	20	20	20
<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>		20	20	20	20	20	20
<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%)</b>		20	20	20	20	20	20
<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>		20	20	20	20	20	20
<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>		20	20	20	20	20	20
<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>		20	20	20	20	20	20
Syringe							
<b>4,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	20	20	20	20	20	20
<b>2,3',4',5-TeCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	20	20	20	20	20	20
Sampling							
<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>		20	20	20	20	20	20

Catalog #	Compound	Amount
<b>NEW</b> ES-5465	<b>Expanded POPs Pesticides Cleanup Spike</b>	1.2 mL in Nonane
<b>NEW</b> ES-5465-5X	<b>Expanded POPs Pesticides Cleanup Spike (5X Stock)</b>	1.2 mL in Nonane

Labeled	ES-5465 (ng/mL)	ES-5465-5X (ng/mL)
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	500
<b>Pentachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	500
<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>4,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>2,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>2,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	500
<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>Kepone (Chlordecone) (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	500
<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	500
<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	500
<b>γ-BHC (γ-HCH) (Lindane) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	500
<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	500
<b>Endosulfan I (<sup>13</sup>C<sub>9</sub>,99%)</b>	100	500
<b>Endosulfan II (<sup>13</sup>C<sub>9</sub>,99%)</b>	100	500

## Pesticide Standard Mixtures

Catalog #	Compound	Amount		
<b>NEW</b> ES-5466	<b>Expanded POPs Pesticides Sampling Spike</b>	1.2 mL in Nonane		
	Labeled	(ng/mL)		
	<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000		
<b>NEW</b> EC-5350	<b>POPs Pesticides HRMS (PCB) Syringe Spike</b>	1.2 mL in Nonane		
<b>NEW</b> EC-5350-L	<b>POPs Pesticides LRMS (PCB) Syringe Spike</b>	0.5 mL in Nonane		
	Labeled	IUPAC	ES-5350	ES-5350-L
	<b>4,4'-DiCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>15</b>	100	1000
	<b>2,3',4',5-TetraCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>70</b>	100	1000
<b>NEW</b> ES-5467	<b>Expanded POPs Pesticides PAR Solution</b>	1.2 mL in Nonane		
	Unlabeled			
	<b>Hexachlorobenzene</b>	1000		
	<b>Pentachlorobenzene</b>	1000		
	<b>Aldrin</b>	1000		
	<b>Dieldrin</b>	1000		
	<b>Endrin</b>	1000		
	<b>4,4'-DDT</b>	1000		
	<b>4,4'-DDE</b>	1000		
	<b>4,4'-DDD</b>	1000		
	<b>2,4'-DDT</b>	1000		
	<b>2,4'-DDE</b>	1000		
	<b>2,4'-DDD</b>	1000		
	<b>trans-Chlordane (γ)</b>	1000		
	<b>cis-Chlordane (α)</b>	1000		
	<b>trans-Nonachlor</b>	1000		
	<b>cis-Nonachlor</b>	1000		
	<b>Oxychlordane</b>	1000		
	<b>Heptachlor</b>	1000		
	<b>trans-Heptachlor epoxide (A isomer)</b>	1000		
	<b>cis-Heptachlor epoxide (B isomer)</b>	1000		
	<b>Mirex</b>	1000		
	<b>Kepone (Chlordecone)</b>	1000		
	<b>α-BHC (α-HCH)</b>	1000		
	<b>β-BHC (β-HCH)</b>	1000		
	<b>γ-BHC (γ-HCH) (Lindane)</b>	1000		
	<b>δ-BHC (δ-HCH)</b>	1000		
	<b>Endosulfan I</b>	1000		
	<b>Endosulfan II</b>	1000		

## Toxaphene Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5345	<b>POPs Toxaphene Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> ES-5345-CS1	<b>POPs Toxaphene Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5345-CS2	<b>POPs Toxaphene Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5345-CS3	<b>POPs Toxaphene Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5345-CS4	<b>POPs Toxaphene Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5345-CS5	<b>POPs Toxaphene Calibration Solution [CS5]</b>	0.2 mL in Nonane

*All concentrations are in ng/mL (ppb)*

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>Parlar 26</b>	10	30	100	300	1000
<b>Parlar 50</b>	10	30	100	300	1000
<b>Parlar 62</b>	10	30	100	300	1000
Labeled					
<b>trans-Chlordane (<math>\gamma</math>) (<math>^{13}\text{C}_{10}</math>,99%)</b>	1	1	1	1	1

<b>NEW</b> ES-5352-L	<b>POPs Toxaphene Surrogate Solution with PCB Syringe</b>	1.2 mL in Nonane
	Labeled (ng/mL)	
	<b>trans-Chlordane (<math>\gamma</math>) (<math>^{13}\text{C}_{10}</math>,99%)</b>	1000

<b>NEW</b> ES-5353	<b>Predominant Bioaccumulative Toxaphene Congeners</b> (Parlar 26, 50 and 62)	1.2 mL in Nonane
	Unlabeled	
	<b>Parlar 26</b>	2000
	<b>Parlar 50</b>	2000
	<b>Parlar 62</b>	2000

## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5348	<b>POPs Pesticides Calibration Solutions [CS1-CS6]</b>	Set of 6 x 0.2 mL in Nonane
<b>NEW</b> ES-5348-CS1	<b>POPs Pesticides Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5348-CS2	<b>POPs Pesticides Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5348-CS3	<b>POPs Pesticides Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5348-CS4	<b>POPs Pesticides Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5348-CS5	<b>POPs Pesticides Calibration Solution [CS5]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5348-CS6	<b>POPs Pesticides Calibration Solution [CS6]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
Hexachlorobenzene		0.4	2	10	40	200	800
Aldrin		0.4	2	10	40	200	800
Dieldrin		0.4	2	10	40	200	800
Endrin		0.4	2	10	40	200	800
4,4'-DDT		0.4	2	10	40	200	800
4,4'-DDE		0.4	2	10	40	200	800
4,4'-DDD		0.4	2	10	40	200	800
2,4'-DDT		0.4	2	10	40	200	800
2,4'-DDE		0.4	2	10	40	200	800
2,4'-DDD		0.4	2	10	40	200	800
trans-Chlordane (γ)		0.4	2	10	40	200	800
cis-Chlordane (α)		0.4	2	10	40	200	800
trans-Nonachlor		0.4	2	10	40	200	800
cis-Nonachlor		0.4	2	10	40	200	800
Oxychlordane		0.4	2	10	40	200	800
Heptachlor		0.4	2	10	40	200	800
trans-Heptachlor epoxide (A isomer)		0.4	2	10	40	200	800
cis-Heptachlor epoxide (B isomer)		0.4	2	10	40	200	800
Mirex		0.4	2	10	40	200	800
α-BHC (α-HCH)		0.4	2	10	40	200	800
β-BHC (β-HCH)		0.4	2	10	40	200	800
Lindane (γ-BHC) (γ-HCH)		0.4	2	10	40	200	800
δ-BHC (δ-HCH)		0.4	2	10	40	200	800
Labeled							
Hexachlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)		20	20	20	20	20	20
Aldrin ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
Dieldrin ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
Endrin ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
4,4'-DDT ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
4,4'-DDE ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
4,4'-DDD ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
2,4'-DDT ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
2,4'-DDE ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
2,4'-DDD ( <sup>13</sup> C <sub>12</sub> ,99%)		20	20	20	20	20	20
trans-Chlordane (γ) ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
trans-Nonachlor ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
cis-Nonachlor ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
Oxychlordane ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
Heptachlor ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
cis-Heptachlor epoxide (B isomer) ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
Mirex ( <sup>13</sup> C <sub>10</sub> ,99%)		20	20	20	20	20	20
α-BHC (α-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)		20	20	20	20	20	20
β-BHC (β-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)		20	20	20	20	20	20
Lindane (γ-BHC) (γ-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)		20	20	20	20	20	20
δ-BHC (δ-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)		20	20	20	20	20	20
4,4'-DiCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>15</b>	20	20	20	20	20	20
2,3',4',5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	<b>70</b>	20	20	20	20	20	20

## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5349	<b>POPs Pesticides HRMS Cleanup Spike</b>	1.2 mL in Nonane
<b>NEW</b> ES-5349-L	<b>POPs Pesticides LRMS Cleanup Spike</b>	0.5 mL in Nonane
<b>NEW</b> ES-5400	<b>POPs Cleanup Spike</b>	1.2 mL in Nonane

Labeled	ES-5349 (ng/mL)	ES-5349-L (ng/mL)	ES-5400 (ng/mL)
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	1000	200
<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>4,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>2,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>2,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100	1000	200
<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	100	1000	200
<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	1000	200
<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	1000	200
<b>Lindane (γ-BHC) (γ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	1000	200
<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100	1000	200

<b>NEW</b> ES-5399	<b>POPs PAR Solution</b>	1.2 mL in Nonane
<b>NEW</b> ES-5399-10X-0.5	<b>POPs PAR Solution (10X concentration)</b>	0.5 mL in Nonane

Unlabeled	ES-5399	ES-5399-10X-0.5
<b>Hexachlorobenzene</b>	200	2000
<b>Aldrin</b>	200	2000
<b>Dieldrin</b>	200	2000
<b>Endrin</b>	200	2000
<b>4,4'-DDT</b>	200	2000
<b>4,4'-DDE</b>	200	2000
<b>4,4'-DDD</b>	200	2000
<b>2,4'-DDT</b>	200	2000
<b>2,4'-DDE</b>	200	2000
<b>2,4'-DDD</b>	200	2000
<b>trans-Chlordane (γ)</b>	200	2000
<b>cis-Chlordane (α)</b>	200	2000
<b>trans-Nonachlor</b>	200	2000
<b>cis-Nonachlor</b>	200	2000
<b>Oxychlordane</b>	200	2000
<b>Heptachlor</b>	200	2000
<b>trans-Heptachlor epoxide (A isomer)</b>	200	2000
<b>cis-Heptachlor epoxide (B isomer)</b>	200	2000
<b>Mirex</b>	200	2000
<b>α-BHC (α-HCH)</b>	200	2000
<b>β-BHC (β-HCH)</b>	200	2000
<b>Lindane (γ-BHC) (γ-HCH)</b>	200	2000
<b>δ-BHC (δ-HCH)</b>	200	2000

<b>NEW</b> EC-5350	<b>POPs Pesticides HRMS (PCB) Syringe Spike</b>	See page 210
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## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5341	<b>POPs Pesticides, non-Toxaphene, non-HCH Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> ES-5341-CS1	<b>POPs Pesticides, non-Toxaphene, non-HCH Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5341-CS2	<b>POPs Pesticides, non-Toxaphene, non-HCH Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5341-CS3	<b>POPs Pesticides, non-Toxaphene, non-HCH Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5341-CS4	<b>POPs Pesticides, non-Toxaphene, non-HCH Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5341-CS5	<b>POPs Pesticides, non-Toxaphene, non-HCH Calibration Solution [CS5]</b>	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>Hexachlorobenzene</b>	0.05	0.15	0.5	1.5	5
<b>Aldrin</b>	0.5	1.5	5	15	50
<b>Dieldrin</b>	0.1	0.3	1	3	10
<b>Endrin</b>	0.5	1.5	5	15	50
<b>4,4'-DDT</b>	0.5	1.5	5	15	50
<b>4,4'-DDE</b>	0.1	0.3	1	3	10
<b>4,4'-DDD</b>	0.5	1.5	5	15	50
<b>2,4'-DDT</b>	0.5	1.5	5	15	50
<b>2,4'-DDE</b>	0.1	0.3	1	3	10
<b>2,4'-DDD</b>	0.5	1.5	5	15	50
<b>trans-Chlordane (γ)</b>	0.05	0.15	0.5	1.5	5
<b>cis-Chlordane (α)</b>	0.05	0.15	0.5	1.5	5
<b>trans-Nonachlor</b>	0.05	0.15	0.5	1.5	5
<b>cis-Nonachlor</b>	0.05	0.15	0.5	1.5	5
<b>Oxychlordane</b>	0.5	1.5	5	15	50
<b>Heptachlor</b>	0.1	0.3	1	3	10
<b>trans-Heptachlor Epoxide (A isomer)</b>	0.1	0.3	1	3	10
<b>cis-Heptachlor Epoxide (B isomer)</b>	0.1	0.3	1	3	10
<b>Mirex</b>	0.1	0.3	1	3	10
Labeled					
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	1	1	1	1	1
<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	2	2	2	2	2
<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	2	2	2	2	2
<b>4,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>2,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	2	2	2	2	2
<b>2,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	10	10	10	10	10
<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	1	1	1	1	1
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	1	1	1	1	1
<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	1	1	1	1	1
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	10	10	10	10	10
<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	2	2	2	2	2
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	2	2	2	2	2
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	2	2	2	2	2



## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5342	<b>POPs Pesticides, non-Toxaphene, non-HCH HRMS Cleanup Spike</b>	1.2 mL in Nonane

Labeled	(ng/mL)
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	10
<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	20
<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	20
<b>4,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>2,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	20
<b>2,4'-DDD (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	10
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	10
<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	10
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	100
<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	20
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	20
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	20

<b>NEW</b> ES-5343	<b>POPs HRMS HCH Calibration Solutions [CS1-CS5]</b>	Set of 5 x 0.2 mL in Nonane
<b>NEW</b> ES-5343-CS1	<b>POPs HRMS HCH Calibration Solution [CS1]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5343-CS2	<b>POPs HRMS HCH Calibration Solution [CS2]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5343-CS3	<b>POPs HRMS HCH Calibration Solution [CS3]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5343-CS4	<b>POPs HRMS HCH Calibration Solution [CS4]</b>	0.2 mL in Nonane
<b>NEW</b> ES-5343-CS5	<b>POPs HRMS HCH Calibration Solution [CS5]</b>	0.2 mL in Nonane

Unlabeled	CS1	CS2	CS3	CS4	CS5
<b>α-BHC (α-HCH)</b>	0.1	0.3	1	3	10
<b>β-BHC (β-HCH)</b>	0.1	0.3	1	3	10
<b>Lindane (γ-BHC) (γ-HCH)</b>	0.1	0.3	1	3	10
<b>δ-BHC (δ-HCH)</b>	0.1	0.3	1	3	10
Labeled					
<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	2	2	2	2	2
<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	2	2	2	2	2
<b>Lindane (γ-BHC) (γ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	2	2	2	2	2
<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	2	2	2	2	2

<b>NEW</b> ES-5344	<b>POPs HRMS HCH Cleanup Spike</b>	1.2 mL in Nonane
<b>NEW</b> ES-5344-50X-0.5	<b>POPs HRMS HCH Cleanup Spike</b>	0.5 mL in Nonane

Labeled	ES-5344	ES-5344-50X-0.5
<b>α-BHC (α-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	20	1000
<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	20	1000
<b>Lindane (γ-BHC) (γ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	20	1000
<b>δ-BHC (δ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	20	1000

## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5019-A	<b>Persistent Pesticide Calibration Solutions [CS1-CS10]</b>	Set of 10 x 0.25 mL in Nonane
<b>NEW</b> ES-5019-A-CS1-8	<b>Persistent Pesticide Calibration Solutions [CS1-CS8]</b>	Set of 8 x 0.25 mL in Nonane
<b>NEW</b> ES-5019-A-CS9-10	<b>Persistent Pesticide Calibration Solutions [CS9-CS10]</b>	Set of 2 x 0.25 mL in Nonane

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
<b>Hexachlorobenzene</b>		1.0	2.5	10	35	100	300	500	1000		
<b>β-BHC (β-HCH)</b>		1.0	2.5	10	35	100	300	500	1000		
<b>Lindane</b>		1.0	2.5	10	35	100	300	500	1000		
<b>cis-Heptachlor epoxide (B isomer)</b>		1.0	2.5	10	35	100	300	500	1000		
<b>Oxychlorodane</b>		1.0	2.5	10	35	100	300	500	1000		
<b>trans-Nonachlor</b>		1.0	2.5	10	35	100	300	500	1000		
<b>4,4'-DDE</b>		1.0	2.5	10	35	100	300	500	1000	3000	6000
<b>Dieldrin</b>		1.0	2.5	10	35	100	300	500	1000		
<b>4,4'-DDT</b>		1.0	2.5	10	35	100	300	500	1000	3000	6000
<b>4,4'-DDT</b>		1.0	2.5	10	35	100	300	500	1000		
<b>Mirex</b>		1.0	2.5	10	35	100	300	500	1000		
<b>Dechlorane Plus syn</b>		1.0	2.5	10	35	100	300	500	1000		
<b>Dechlorane Plus anti</b>		1.0	2.5	10	35	100	300	500	1000		
Labeled											
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>β-BHC (β-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Lindane (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Oxychlorodane (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>		150	150	150	150	150	150	150	150	150	150
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25	25	25	25	25	25	25	25	25	25
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	100	100	100	100	100	100	100	100	100	100
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b>	75	75	75	75	75	75	75	75	75	75

ES-5020	<b>Persistent Pesticide Reconstituting Solution</b>	10 x 1 mL in Nonane
ES-5020-1ML	<b>Persistent Pesticide Reconstituting Solution</b>	1 mL in Nonane

Labeled	IUPAC	(ng/mL)
<b>3,4,4'-TriCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>37</b>	100
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	100
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25
<b>2,3,7,8-TCDD (<sup>13</sup>C<sub>12</sub>,99%)</b>		25

<b>NEW</b> ES-5321	<b>Multi-Analyte Recovery Spiking Standard</b>	10 mL in 88% Hexane/ 2% Dodecane/10% Nonane
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Labeled	IUPAC	(ng/mL)
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		2.5
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	10
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	7.5
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b>	7.5

## Pesticide Standard Mixtures

Catalog #	Compound	Amount
ES-5021	<b>Persistent Pesticide Spiking Solution</b>	2.5 mL in Nonane

Labeled	(ng/mL)
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>β-HCH (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>Lindane (γ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	100
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	100
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	100
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	100
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	100
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	100
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	250

<b>NEW</b> ES-5177-500X-N-0.5	<b>Persistent Pesticide Spiking Solution</b>	0.5 mL in Nonane
<b>NEW</b> ES-5177-5X10	<b>Persistent Pesticide Spiking Solution</b>	5 x 10 mL in Methanol

Labeled	ES-5177-500X-N-0.5	ES-5177-5X10
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	5000	10
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	5000	10
<b>β-HCH (<sup>13</sup>C<sub>6</sub>,99%)</b>	5000	10
<b>Lindane (γ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	5000	10
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	5000	10
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	5000	10
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	5000	10
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>	5000	10
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	5000	10
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>	5000	10
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	12,500	25

ES-5261-1.2	<b>Persistent Organic Pollutants Cleanup Spike</b>	1.2 mL in Nonane
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Labeled	
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>	1000
<b>α-HCH (<sup>13</sup>C<sub>6</sub>,99%)</b>	1000
<b>β-HCH (<sup>13</sup>C<sub>6</sub>,99%)</b>	1000
<b>Lindane (γ-HCH) (<sup>13</sup>C<sub>6</sub>,99%)</b>	1000
<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>	1000
<b>Oxychlordane (<sup>13</sup>C<sub>10</sub>,99%)</b>	1000
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	1000
<b>Heptachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>	1000
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>	1000
<b>4,4'-DDT (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>4,4'-DDE (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	1000
<b>4,4'-DDD (ring-<sup>13</sup>C<sub>12</sub>,99%)</b>	1000

## Pesticide Standard Mixtures

Catalog #	Compound	Amount
<b>NEW</b> ES-5442	<b>CDC Priority Pollutant Calibration Solutions [CS1-CS10]</b>	Set of 10 x 0.5 mL in Nonane
<b>NEW</b> ES-5442-CS1	<b>CDC Priority Pollutant Calibration Solution [CS1]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS2	<b>CDC Priority Pollutant Calibration Solution [CS2]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS3	<b>CDC Priority Pollutant Calibration Solution [CS3]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS4	<b>CDC Priority Pollutant Calibration Solution [CS4]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS5	<b>CDC Priority Pollutant Calibration Solution [CS5]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS6	<b>CDC Priority Pollutant Calibration Solution [CS6]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS7	<b>CDC Priority Pollutant Calibration Solution [CS7]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS8	<b>CDC Priority Pollutant Calibration Solution [CS8]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS9	<b>CDC Priority Pollutant Calibration Solution [CS9]</b>	0.5 mL in Nonane
<b>NEW</b> ES-5442-CS10	<b>CDC Priority Pollutant Calibration Solution [CS10]</b>	0.5 mL in Nonane

Unlabeled	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
<b>Parlar 26</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Parlar 50</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Parlar 62</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Hexachlorobenzene</b>	0.2	0.5	1	2.5	10	75	100	500		
<b><math>\beta</math>-BHC (<math>\beta</math>-HCH)</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Lindane</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Aldrin</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>cis-Heptachlor epoxide (B isomer)</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Oxychlordane</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>trans-Nonachlor</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>4,4'-DDE</b>	0.2	0.5	1	2.5	10	75	100	500	3000	7500
<b>Dieldrin</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Endrin</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Isodrin</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,4'-DDT</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>4,4'-DDT</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Mirex</b>	0.2	0.5	1	2.5	10	75	100	500		
<b><math>\alpha</math>-BHC (<math>\alpha</math>-HCH)</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>cis-Chlordane (<math>\alpha</math>)</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>trans-Chlordane (<math>\gamma</math>)</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>2,4'-DDE</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>cis-Nonachlor</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Methoxychlor</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Pentachloroanisole</b>	0.2	0.5	1	2.5	10	75	100	500		
<b>Octachlorostyrene</b>	0.2	0.5	1	2.5	10	75	100	500		

## Pesticide Standard Mixtures

(continued from previous page)

*All concentrations are in ng/mL (ppb)*

Labeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
<b>1,2,3,4-TCDD (<sup>13</sup>C<sub>6</sub>,99%)</b>		25	25	25	25	25	25	25	25	25	25
<b>2,2',3,3',4,5,5',6,6'-NonaCB (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>208</b>	100	100	100	100	100	100	100	100	100	100
<b>3,3',4,4'-TetraBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>77</b>	75	75	75	75	75	75	75	75	75	75
<b>2,2',3,4,4',6-HexaBDE (<sup>13</sup>C<sub>12</sub>,99%)</b>	<b>139</b>	75	75	75	75	75	75	75	75	75	75
<b>Parlar 26 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Parlar 50 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Parlar 62 (U-<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Hexachlorobenzene (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>β-HCH (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Lindane (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Aldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>cis-Heptachlor epoxide (B isomer) (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Oxychlorane (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>trans-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>4,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>		150	150	150	150	150	150	150	150	150	150
<b>Dieldrin (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Endrin (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Isodrin (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>2,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>4,4'-DDT (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Mirex (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>α-HCH (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>trans-Chlordane (γ) (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>2,4'-DDE (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>cis-Nonachlor (<sup>13</sup>C<sub>10</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Methoxychlor (<sup>13</sup>C<sub>12</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Pentachloroanisole (<sup>13</sup>C<sub>6</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75
<b>Octachlorostyrene (<sup>13</sup>C<sub>8</sub>,99%)</b>		75	75	75	75	75	75	75	75	75	75

## Chemical Weapon Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CDNLM-6786-1.2	<b>Aminomethylphosphonic acid (AMPA) (<sup>13</sup>C,99%,<sup>15</sup>N,98%, methylene-D<sub>2</sub>,98%)</b>	*CH <sub>4</sub> D <sub>2</sub> *NO <sub>3</sub> P	100 µg/mL in H <sub>2</sub> O	1.2 mL
ERC-034	<b>Cyclohexyl methylphosphonic acid (unlabeled)</b>	C <sub>7</sub> H <sub>15</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERD-117	<b>O,O-Diethyl dithiophosphate, potassium salt (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> KO <sub>2</sub> PS	1000 µg/mL in Methanol	1.2 mL
<b>NEW</b> ERD-155	<b>O,O-Dimethyl dithiophosphate, sodium salt (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>2</sub> PS <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
ERD-118	<b>Diethyl hydrogen phosphate (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> O <sub>4</sub> P	1000 µg/mL in Methanol	1.2 mL
DLM-4852-1.2	<b>O,O-Diethyl thiophosphate, potassium salt (diethyl-D<sub>10</sub>,98%)</b>	C <sub>4</sub> D <sub>10</sub> KO <sub>3</sub> PS	100 µg/mL in Methanol	1.2 mL
ERD-119	<b>O,O-Diethyl thiophosphate, potassium salt (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> KO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
ERD-086	<b>Diisopropyl methylphosphonate (D<sub>14</sub>,98%)</b>	C <sub>7</sub> H <sub>3</sub> D <sub>14</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERD-083	<b>Diisopropyl methylphosphonate (unlabeled)</b>	C <sub>7</sub> H <sub>17</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERD-121	<b>Dimethyl hydrogen phosphate (unlabeled)</b>	(CH <sub>3</sub> O) <sub>2</sub> P(O)OH	1000 µg/mL in Methanol	1.2 mL
ULM-4617-1.2	<b>O,O-Dimethyl hydrogen thiophosphate (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>3</sub> PS	1000 µg/mL in Methanol	1.2 mL
ULM-6089	<b>O,S-Dimethyl thiophosphate, sodium salt (unlabeled)</b>	C <sub>2</sub> H <sub>6</sub> NaO <sub>3</sub> PS		Inquire
ERD-085	<b>1,4-Dithiane (D<sub>4</sub>,98%)</b>	C <sub>4</sub> H <sub>4</sub> D <sub>4</sub> S <sub>2</sub>	1000 µg/mL in Methanol	1.2 mL
CLM-6090	<b>Ethyl dimethylamidophosphate, sodium salt (<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>4</sub> H <sub>11</sub> NPO <sub>3</sub> Na		Inquire
ULM-6091-1.2	<b>Ethyl dimethylamidophosphate, sodium salt (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub> PNa	1000 µg/mL in Methanol	1.2 mL
DLM-6098-1.2	<b>Ethyl hydrogen methylphosphonate (ethyl-D<sub>5</sub>,98%)</b>	C <sub>3</sub> H <sub>4</sub> D <sub>5</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
ERE-024	<b>Ethyl methylphosphonic acid (unlabeled)</b>	C <sub>3</sub> H <sub>9</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
CLM-4868-1.2	<b>1,2-Bis(2-hydroxyethyl thio) ethane (bis-2-hydroxyethyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	HO(*CH <sub>2</sub> ) <sub>2</sub> S(CH <sub>2</sub> ) <sub>2</sub> S(*CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Acetonitrile	1.2 mL
CLM-4874-1.2	<b>1,5-Bis(2-hydroxyethyl thio)-n-pentane (bis-2-hydroxyethyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	HO(*CH <sub>2</sub> ) <sub>2</sub> S(CH <sub>2</sub> ) <sub>5</sub> S(*CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Acetonitrile	1.2 mL
CLM-4872-1.2	<b>1,4-Bis(2-hydroxyethyl thio)-n-butane (bis-2-hydroxyethyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	HO(*CH <sub>2</sub> ) <sub>2</sub> S(CH <sub>2</sub> ) <sub>4</sub> S(*CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Acetonitrile	1.2 mL
CLM-4864-1.2	<b>Bis(2-hydroxyethyl thioethyl) ether (bis-2-hydroxyethyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>4</sub> C <sub>4</sub> H <sub>18</sub> O <sub>3</sub> S <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4866-1.2	<b>Bis(2-hydroxyethyl thio) methane (bis-2-hydroxyethyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	*C <sub>4</sub> C <sub>1</sub> H <sub>12</sub> O <sub>2</sub> S <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4870-1.2	<b>1,3-Bis(2-hydroxyethyl thio) propane (bis-2-hydroxyethyl-<sup>13</sup>C<sub>4</sub>,99%)</b>	HO(*CH <sub>2</sub> ) <sub>2</sub> S(CH <sub>2</sub> ) <sub>3</sub> S(*CH <sub>2</sub> ) <sub>2</sub> OH	100 µg/mL in Acetonitrile	1.2 mL
<b>NEW</b> ERI-026	<b>Isobutyl hydrogen methylphosphonate (unlabeled)</b>	C <sub>5</sub> H <sub>13</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERI-015	<b>Isopropyl methylphosphonic acid (unlabeled)</b>	C <sub>4</sub> H <sub>11</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERI-017	<b>Isopropyl methylphosphonic acid (D<sub>7</sub>,98%)</b>	C <sub>4</sub> H <sub>4</sub> D <sub>7</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL

## Chemical Weapon Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-6196-1.2	<b>Methylphosphonic acid (methyl-D<sub>3</sub>,98%)</b>	CD <sub>3</sub> H <sub>2</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
CDLM-6100-1.2	<b>Methylphosphonic acid (<sup>13</sup>C,99%;methyl-D<sub>3</sub>,98%)</b>	*CD <sub>3</sub> H <sub>2</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL
ERM-038	<b>Methylphosphonic acid (unlabeled)</b>	CH <sub>5</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERP-083	<b>Pinacolyl methylphosphonic acid (unlabeled)</b>	C <sub>7</sub> H <sub>17</sub> O <sub>3</sub> P	1000 µg/mL in Methanol	1.2 mL
ERQ-003	<b>Quinuclidinyl benzilate (unlabeled)</b>	C <sub>21</sub> H <sub>23</sub> NO <sub>3</sub>	1000 µg/mL in Acetonitrile	1.2 mL
CLM-6106-1.2	<b>Ricinine (ring-<sup>13</sup>C<sub>5</sub>,99%;cyano-<sup>13</sup>C,99%)</b>	C <sub>2</sub> *C <sub>6</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	100 µg/mL in Acetonitrile	1.2 mL
CLM-4806	<b>Thiodiglycol (<sup>13</sup>C<sub>4</sub>,99%)</b>	S(*CH <sub>2</sub> *CH <sub>2</sub> OH) <sub>2</sub>		Inquire
ERT-054	<b>Thiodiglycol (D<sub>8</sub>,98%)</b>	C <sub>4</sub> H <sub>2</sub> D <sub>8</sub> O <sub>2</sub> S	1000 µg/mL in Methanol	1.2 mL
ERT-053	<b>Thiodiglycol (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub> S	1000 µg/mL in Methanol	1.2 mL
ERT-052	<b>Thiodiglycol sulfoxide (unlabeled)</b>	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub> S	1000 µg/mL in Methanol	1.2 mL
CLM-6620-1.2	<b>1,2,2-Trimethylpropyl hydrogen methylphosphonate (Pinacolyl hydrogen methylphosphonate) (trimethylpropyl-<sup>13</sup>C<sub>6</sub>,99%)</b>	*C <sub>6</sub> CH <sub>17</sub> O <sub>3</sub> P	100 µg/mL in Methanol	1.2 mL



Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
Acenaphthene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 176, 182	Bendiocarb (unlabeled)	200
Acenaphthene (D <sub>10</sub> ,99%)	141, 144, 145, 157, 176	Bensulide (isopropoxy-D <sub>14</sub> ,98%)	198, 202
Acenaphthene (unlabeled)	143, 145, 176, 182	Benz[a]anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 176, 182
Acenaphthylene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 145, 144, 182	Benz[a]anthracene (D <sub>12</sub> ,98%)	141, 144, 145, 157, 176
Acenaphthylene (D <sub>8</sub> ,98%)	141, 144, 145, 154, 156	Benz[a]anthracene (unlabeled)	143, 176, 182
Acenaphthylene (unlabeled)	143, 182	Benzene ( <sup>13</sup> C <sub>6</sub> ,99%)	182
Acephate (D <sub>6</sub> ,98%)	198, 202	Benzene ( <sup>13</sup> C <sub>6</sub> ,99%;D <sub>6</sub> ,98%)	182
Acephate (unlabeled)	198, 202	Benzene (D <sub>1</sub> ,98%)	182
Acetaminophen (acetyl- <sup>13</sup> C <sub>2</sub> ,99%; <sup>15</sup> N,98%)	166	Benzene (D <sub>5</sub> ,98%)	182
Acetaminophen (unlabeled)	166	Benzene (D <sub>6</sub> ,99.5%)	154, 155, 158, 182
Acetone (D <sub>6</sub> ,99.9%)	158, 182	Benzidine (ring-D <sub>8</sub> ,98%)	157, 182
Acid Extractables Mixture-3	156, 159	Benzo[a]pyrene ( <sup>13</sup> C <sub>4</sub> ,99%)	139, 144, 176, 182
Acridine (D <sub>9</sub> ,98%)	141	Benzo[a]pyrene (D <sub>12</sub> ,98%)	141, 144, 145, 154, 156, 176
Acrylamide (+100 ppm hydroquinone) (1,2,3- <sup>13</sup> C <sub>3</sub> ,99%)	168	Benzo[a]pyrene (unlabeled)	143, 176, 182
Acrylamide (+100 ppm hydroquinone) (unlabeled)	168	Benzo[b]fluoranthene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 176, 182
Acrylonitrile	182	Benzo[b]fluoranthene (D <sub>12</sub> ,98%)	141, 144, 145, 156, 176
(inhibited with 0.1% 4-Methoxy phenol) ( <sup>13</sup> C <sub>3</sub> ,99%)	158, 182	Benzo[b]fluoranthene (unlabeled)	143, 176
Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) (D <sub>3</sub> ,98%)	202	Benzo[b]naphtho[2,1-d]-thiophene (D <sub>10</sub> ,96%)	147
Alachlor acetylcysteine adduct (ring- <sup>13</sup> C <sub>6</sub> ,99%)	176, 202	Benzo[b]naphtho[2,1-d]-thiophene (unlabeled)	147
Alachlor (ring- <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 195, 196, 202, 208, 209, 212, 213, 214, 215, 217, 219	Benzo[c]phenanthrene (unlabeled)	143
Aldrin ( <sup>13</sup> C <sub>12</sub> ,99%)	182, 195, 196, 202, 208, 210, 212, 213, 214, 218	Benzo[e]pyrene (9,10,11,12- <sup>13</sup> C <sub>4</sub> ,99%)	139
Alternate PCB and Dioxin/Furan Calibration Verification Standard	39	Benzo[e]pyrene (D <sub>12</sub> ,98%)	141, 144
5-(4-Morpholinylmethyl)-3-amino-2-oxazolidinone (AMOZ) (4,4,5,5',5'-D <sub>5</sub> ,98%)	168	Benzo[e]pyrene (unlabeled)	143
5-(4-Morpholinylmethyl)-3-amino-2-oxazolidinone (AMOZ) (unlabeled)	168	Benzo[g,h,i]perylene ( <sup>13</sup> C <sub>12</sub> ,99%)	139, 144, 182
3-Amino-2-oxazolidone (AOZ) (ring-D <sub>4</sub> ,98%)	168	Benzo[g,h,i]perylene (D <sub>12</sub> ,98%)	141, 144, 145, 156
3-Amino-2-oxazolidone (AOZ) (unlabeled)	168	Benzo[g,h,i]perylene (unlabeled)	143, 182
1-Amino-2-propanol (D <sub>3</sub> ,98%)	182	Benzoic acid (ring-D <sub>3</sub> ,98%)	182
1-Aminohydantoin hydrochloride (AHD) (5,5-D <sub>2</sub> ,98%)	168	Benzo[k]fluoranthene (unlabeled)	143
1-Aminohydantoin hydrochloride (AHD) (unlabeled)	168	Benzo[k]fluoranthene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 176, 182
Aminomethylphosphonic acid (AMPA) ( <sup>13</sup> C,99%; <sup>15</sup> N,98%, methylene-D <sub>2</sub> ,98%)	198, 220	Benzo[k]fluoranthene (D <sub>12</sub> ,98%)	141, 144, 145, 157, 176
2-Aminonaphthalene (ring-D <sub>7</sub> ,98%)	157, 182	Benzo[k]fluoranthene (unlabeled)	143
Amitriptyline-HCl (N,N-dimethyl-D <sub>6</sub> ,98%)	166	Benzophenone (D <sub>10</sub> ,98%)	163, 179
Amitriptyline-HCl (unlabeled)	166	Benzophenone (unlabeled)	163, 179
Ammelide (ring- <sup>13</sup> C <sub>3</sub> ,99%)	168	1,4-Benzoquinone (D <sub>4</sub> ,98%)	182
Ammelide (unlabeled)	168	Benzyl butyl phthalate (ring-D <sub>4</sub> ,98%)	170, 176, 182
Ammeline (Desethyldeisopropylhydroxyatrazine) (ring- <sup>13</sup> C <sub>3</sub> ,99%)	168	BFR Recovery Spiking Solution	135
Ammeline (Desethyldeisopropylhydroxyatrazine) (unlabeled)	168	α-BHC (α-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209, 212, 213, 215, 217, 219
Amoxicillin- <sup>3</sup> H <sub>2</sub> O (phenyl- <sup>13</sup> C <sub>6</sub> ,99%)	167	α-BHC (α-HCH) (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 218
1,6-Anhydro-beta-D-glucose (Levogluconan) ( <sup>13</sup> C <sub>6</sub> ,98%)	168	β-BHC (β-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209, 212, 213, 215, 216, 217, 219
1,6-Anhydro-beta-D-glucose (Levogluconan) (unlabeled)	168	β-BHC (β-HCH) (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 218
Aniline ( <sup>13</sup> C <sub>6</sub> ,99%)	182	γ-BHC (γ-HCH) (Lindane) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209, 212, 213, 215, 216, 217, 219
Aniline (D <sub>7</sub> ,98%)	182	γ-BHC (γ-HCH) (Lindane) ( <sup>13</sup> C <sub>6</sub> ,99%;D <sub>6</sub> ,99%)	182, 196, 202
Aniline (ring-D <sub>5</sub> ,98%)	182	γ-BHC (γ-HCH) (Lindane) (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 216, 218
Anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 176, 182	δ-BHC (δ-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)	182, 196, 202, 209, 212, 213, 215
Anthracene (D <sub>10</sub> ,98%)	141, 144, 154, 157, 176	δ-BHC (δ-HCH) (unlabeled)	182, 196, 202, 209, 210, 212, 213, 215
Anthracene (unlabeled)	143, 176, 182	Biphenyl ( <sup>13</sup> C <sub>12</sub> ,99%)	67, 183
Atrazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	176, 201, 202	Biphenyl (D <sub>10</sub> ,98%)	159, 183
Atrazine (ethylamine-D <sub>5</sub> ,98%)	201, 202	Biphenyl (unlabeled)	111, 183
Atrazine (unlabeled)	201, 202	1,2-Bis(2,4,6-tribromophenoxy) ethane ( <sup>13</sup> C <sub>12</sub> ,99%)	134, 135
Atrazine mercapturate (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 202	1,2-Bis(2,4,6-tribromophenoxy) ethane (BTBPE) (unlabeled)	123, 134
Atrazine mercapturate (unlabeled)	201, 202	Bis(2-chloroethoxy) methane (chloroethoxy-D <sub>8</sub> ,98%)	157, 183
Atrazinethiol (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 202	Bis(2-chloroethyl) ether (D <sub>8</sub> ,98%)	154
Atrazinethiol (unlabeled)	201, 202	Bis(2-chloroethyl) ether (D <sub>8</sub> ,98%)	157, 183
Base Neutrals Dilution Mixture-5	157	Bis(2-chloroisopropyl) ether (D <sub>12</sub> ,95%)	156, 183
Base Neutrals Dilution Mixture-5.1	157	Bis(2-ethylhexyl) adipate (adipate- <sup>13</sup> C <sub>6</sub> ,99%)	170, 176
Base Neutrals Dilution Mixture-5.2	157	Bis(2-ethylhexyl) adipate (unlabeled)	170
Base Neutrals Mixture-4.1	156, 159	Bis(2-ethylhexyl) phthalate (ring-D <sub>4</sub> ,98%)	157, 170, 176, 183
Base Neutrals Mixture-4.3	156, 159	Bis(2-ethylhexyl) phthalate (unlabeled)	170, 176
Base Neutrals Mixture-5.1	159	1,2-Bis(2-hydroxyethyl thio) ethane (bis-2-hydroxyethyl- <sup>13</sup> C <sub>4</sub> ,99%)	220
Base Neutrals Mixture-6.2	157, 159	Bis(2-hydroxyethyl thioethyl) ether (bis-2-hydroxyethyl- <sup>13</sup> C <sub>4</sub> ,99%)	220
Base Neutrals Mixture-6.3	157, 159	Bis(2-hydroxyethyl thio) methane (bis-2-hydroxyethyl- <sup>13</sup> C <sub>4</sub> ,99%)	220
Bendiocarb ( <sup>13</sup> C <sub>3</sub> ,99%)	200, 202	1,4-Bis(2-hydroxyethyl thio)-n-butane (bis-2-hydroxyethyl- <sup>13</sup> C <sub>4</sub> ,99%)	220

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
1,5-Bis(2-hydroxyethyl thio)- <i>n</i> -pentane (bis-2-hydroxyethyl- <sup>13</sup> C <sub>4</sub> ,99%)	220	Carbon tetrachloride ( <sup>13</sup> C,99%)	158, 184
1,3-Bis(2-hydroxyethyl thio) propane (bis-2-hydroxyethyl- <sup>13</sup> C <sub>4</sub> ,99%)	220	Catechol ( <sup>13</sup> C <sub>6</sub> ,99%)	184
1,2-Bis(pentabromophenyl) ethane ( <sup>13</sup> C <sub>14</sub> ,99%)	134, 135	Catechol (D <sub>6</sub> ,98%)	184
1,2-Bis(pentabromophenyl) ethane (DBDPE) (unlabeled)	123, 134	CDC BFR Calibration Standards	134
Bisphenol A (ring- <sup>13</sup> C <sub>12</sub> ,99%)	176, 179, 183	CDC BFR Spiking Standard	135
Bisphenol A (unlabeled)	176, 179, 183	CDC PCB Calibration Solutions	100
2,4'-Bisphenol A (2-(2-hydroxyphenyl)-2-(4-hydroxyphenyl) propane) (unlabeled)	176, 179, 183	CDC PCB Spiking Standard	101
Brominated Dioxin/Furan Calibration Solutions	62	CDC Priority Pollutant Calibration Solutions	218
Brominated Dioxin/Furan Internal Standard	63	(+/-)-Chloramphenicol (ring-D <sub>4</sub> , benzyl-D <sub>1</sub> ,98%)	167, 168
Brominated Dioxin/Furan Labeled Compounds	63	(+/-)-Chloramphenicol (unlabeled)	167, 168
Brominated Dioxin/Furan PAR Solution	64	<i>cis</i> -Chlordane (α)	184, 195, 196, 202
Brominated Diphenyl Ether Calibration Solutions	130	<i>cis</i> -Chlordane (α) ( <sup>13</sup> C <sub>10</sub> ,99%)	184, 195, 196, 202
Bromobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	183	<i>cis</i> -Chlordane (α) (unlabeled)	184, 195, 196, 202, 208, 212, 213, 210, 214, 218
Bromobenzene (D <sub>5</sub> ,99%)	183	<i>trans</i> -Chlordane (γ) ( <sup>13</sup> C <sub>10</sub> ,99%)	176, 184, 195, 196, 202, 208, 209, 211, 212, 213, 214, 215, 217, 219
Bromodichloromethane ( <sup>13</sup> C,99%)	158, 183	<i>trans</i> -Chlordane (γ) (unlabeled)	184, 195, 196, 202, 208, 210, 211, 212, 213, 214, 215, 217, 218, 219
Bromodichloromethane (unlabeled)	183	Chlordecone (Kepone) ( <sup>13</sup> C <sub>10</sub> ,99%)	176, 195, 196, 202, 208, 210
Bromodioxin/Furan Calibration Standard Solutions	58	Chlordecone (Kepone) (unlabeled)	176, 195, 196, 202, 208, 210
Bromodioxin/Furan Cleanup Spike	59	Chlordene ( <sup>13</sup> C <sub>10</sub> ,99%)	176, 195, 196, 202
Bromodioxin/Furan Sampling Spike	59	Chlordene (unlabeled)	176, 195, 196, 202
Bromodioxin/Furan Syringe Spike	59	3-Chloro-1,2-propanediol (~10% 2-Chloro-1,3-propanediol) (propane-D <sub>5</sub> ,98%)	168
Bromoethane (D <sub>5</sub> ,98%)	183	3-Chloro-1,2-propanediol (unlabeled)	168
2-Bromoethanol (1,1,2,2-D <sub>4</sub> ,98%)	183	4-Chloro-2-hydroxymethyl phenoxyacetic acid (HMCPA) (ring- <sup>13</sup> C <sub>6</sub> ,99%)	202
Bromoform ( <sup>13</sup> C,99%)	158, 183	4-Chloro-2-methylphenoxyacetic acid (MCPA) (ring- <sup>13</sup> C <sub>6</sub> ,99%)	202
Bromoform (D,99.5%)	154, 183	4-Chloro-3-methylphenol (2,6-D <sub>2</sub> ,98%)	156, 184
1-Bromo-2,3,4,6,7,8,9-Heptachlorodibenzo- <i>p</i> -dioxin	15	4-Chloroaniline (D <sub>4</sub> ,98%)	154
1-Bromo-2,3,6,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin	15	9-Chloroanthracene	143
Bromomethane ( <sup>13</sup> C,99%)	183	Chlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151
Bromomethane (D <sub>3</sub> ,99%)	158, 183	Chlorobenzene (D <sub>5</sub> ,99%)	158, 184
4'-Bromo-2,3,3',4,5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112, 113	<sup>13</sup> C-Labeled Chlorobenzene Cocktail Solution – Mono, Di, Tri Isomers	151
4'-Bromo-2,3,3',4,5-PentaCB (unlabeled)	112, 113	<sup>13</sup> C-Labeled Chlorobenzene Cocktail Solution – Tetra, Penta, Hexa Isomers	151
4'-Bromo-3,3',4,5,5'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112, 113	4-Chlorocatechol ( <sup>13</sup> C <sub>6</sub> ,99%)	184
4'-Bromo-3,3',4,5,5'-PentaCB Certified Standard (unlabeled)	112, 113	4-Chlorocatechol (unlabeled)	152, 184
2-Bromo-3,6,7,8,9-Pentachlorodibenzo- <i>p</i> -dioxin	15	Chlorodibenzofuran Mix – High	55
4-Bromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175	Chlorodibromomethane ( <sup>13</sup> C,99%)	158, 184
4-Bromophenol (unlabeled)	175	Chlorodioxin Mix – High	55
4-Bromophenyl phenyl ether (phenyl-D <sub>5</sub> ,98%) (BDE-3)	156, 183	Chloroethane (D <sub>5</sub> ,98%)	154, 155, 158, 184
4'-Bromo-2,3,3',4-TetraCB	112, 113	2-Chloroethanol (1,1,2,2-D <sub>4</sub> ,98%)	184
4'-Bromo-2,3,3',4-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112, 113	Chloroform ( <sup>13</sup> C,99%)	158, 184
4'-Bromo-2,3,3',4-TetraCB (unlabeled)	112	Chloroform (D,99.8%)	154, 155, 184
4'-Bromo-2,3',4,5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112, 113	4-Chloroguaiacol ( <sup>13</sup> C <sub>6</sub> ,99%)	152
4'-Bromo-2,3',4,5-TetraCB (unlabeled)	112, 113	4-Chloroguaiacol (unlabeled)	153, 184
1-Bromo-2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin ( <sup>13</sup> C <sub>12</sub> ,99%)	15	Chloroiodomethane (D <sub>2</sub> ,98%)	184
1-Bromo-2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	15	Chloromethane ( <sup>13</sup> C,99%)	184
1-Bromo-2,3,7,8 TetraCDF	15	Chloromethane (D <sub>3</sub> ,99%)	158, 184
3-Bromo-2,7,8-TriCDF	15	2-Chloronaphthalene (D <sub>7</sub> ,98%)	141, 156, 184
4'-Bromo-3,3',4,5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112, 113	4-Chloronitrobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	184
4'-Bromo-3,3',4,5-TetraCB (unlabeled)	112, 113	9-Chloroanthracene (unlabeled)	143
2-Bromo-3,7,8-Trichlorodibenzo- <i>p</i> -dioxin	15	9-Chlorophenanthrene (unlabeled)	143
Bromoxynil (ring- <sup>13</sup> C <sub>6</sub> ,99%)	202	2-Chlorophenol (3,4,5,6-D <sub>4</sub> ,99%)	154, 156, 184
Bromoxynil (unlabeled)	202	4-Chlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 175, 203
2-Butanone (4,4,4-D <sub>3</sub> ,98%)	154, 155, 183	4-Chlorophenol (unlabeled)	152, 175, 203
2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D <sub>5</sub> ,98%)	158, 183	<sup>13</sup> C-Labeled Chlorophenol Cocktail Solution – Mono, Di, Tri Isomers	151
2-Butanone (Methyl ethyl ketone; MEK) (4,4,4-D <sub>3</sub> ,98%)	176, 179	<sup>13</sup> C-Labeled Chlorophenol Cocktail Solution – Tri, Tetra, Penta Isomers	151
<i>n</i> -Butylbenzene (ring- <sup>13</sup> C <sub>6</sub> ,99%)	157	Chlorophenolics Mixtures	153
Butyl benzyl phthalate (3,4,5,6-D <sub>4</sub> ,99%)	163	4-Chlorophenyl phenyl ether (phenyl-D <sub>5</sub> ,98%)	156, 184
<i>n</i> -Butyl paraben (ring- <sup>13</sup> C <sub>6</sub> ,99%)	163	4-Chlorophenyl phenyl ether (unlabeled)	184
<i>n</i> -Butyl paraben (unlabeled)	163	2-Chloropropene (D <sub>5</sub> ,98%)	184
Caffeine (trimethyl- <sup>13</sup> C <sub>3</sub> ,99%)	166	1-Chloropyrene (mix of ring labeling) ( <sup>13</sup> C <sub>6</sub> ,99%)	139
Caffeine (unlabeled)	166	1-Chloropyrene (unlabeled)	143
Calibration Curve for Dioxin, Furan and PCB in Tissue	36	2-Chlorosyringaldehyde	153
Carbamazepine (unlabeled)	166	5-Chlorovanillin (ring- <sup>13</sup> C <sub>6</sub> ,99%)	152
Carbamazepine (D <sub>10</sub> ,98%)	166	5-Chlorovanillin (unlabeled)	153
Carbamazepine (unlabeled)	166	6-Chlorovanillin (unlabeled)	153
Carbaryl (ring- <sup>13</sup> C <sub>6</sub> ,99%)	176, 200, 202	Chlorpyrifos (diethyl-D <sub>10</sub> ,99%)	176, 198, 203
Carbaryl (unlabeled)	176, 200, 202	Chlorpyrifos (unlabeled)	198, 203
Carbazole (D <sub>8</sub> ,98%)	184	Chlorpyrifos methyl (dimethyl-D <sub>6</sub> ,98%)	198, 203
Carbazole-NH (D <sub>8</sub> ,98%)	157	Chlortoluron (N,N-dimethyl-D <sub>6</sub> ,98%)	203
Carbofuran (ring- <sup>13</sup> C <sub>6</sub> ,99%)	200, 202		
Carbofuran (unlabeled)	200, 202		
Carbofuran phenol (ring- <sup>13</sup> C <sub>6</sub> ,98%)	200, 202		
Carbofuran phenol (unlabeled)	200, 202		
Carbon- <sup>13</sup> Quantifying Cocktail (2,3,7,8-PCDD/PCDF isomers)	51		

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
Cholesterol (3,4- <sup>13</sup> C <sub>3</sub> ,99%)	164	4,4'-DDE [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethylene] ( <sup>13</sup> C <sub>12</sub> ,99%)	176, 185, 196, 203, 208, 209, 212, 213, 214, 215, 216, 217, 219
Cholesterol (25,26,26,26,27,27,27-D <sub>7</sub> ,98%)	164	4,4'-DDE (unlabeled)	176, 185, 196, 203, 208, 210, 212, 213, 214, 215, 216, 217, 218, 219
Cholesterol (2,2,3,4,4,6-D <sub>6</sub> ,97-98%)	164	2,4'-DDT [( <i>o,p'</i> -Dichlorodiphenyl) trichloroethane] ( <sup>13</sup> C <sub>12</sub> ,99%)	176, 185, 196, 203, 208, 209, 212, 213, 214, 215, 216, 217, 219
Chrysene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 176	2,4'-DDT (unlabeled)	176, 185, 196, 203, 208, 210, 212, 213, 214, 215, 216, 217, 218, 219
Chrysene (D <sub>12</sub> ,98%)	141, 144, 145, 157, 176	4,4'-DDT [( <i>p,p'</i> -Dichlorodiphenyl) trichloroethane] ( <sup>13</sup> C <sub>12</sub> ,99%)	176, 185, 196, 203, 208, 209, 212, 213, 214, 215, 216, 217, 219
Chrysene (unlabeled)	143, 145, 176	4,4'-DDT (unlabeled)	176, 185, 196, 203, 208, 210, 212, 213, 214, 215, 216, 217, 218, 219
Ciprofloxacin-HCl	167	DecaBB (Decabromobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%) (PBB-209)	122
(2,3-carboxyl- <sup>13</sup> C <sub>3</sub> ,99%; quinoline- <sup>15</sup> N,98%)	167	DecaBB Certified Standard (PBB-209)	122
Ciprofloxacin-HCl (unlabeled)	167	DecaBDE ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 124, 125, 126, 127, 128, 129, 134, 135
Clean Natural Matrix Reference Material (Fish)	34	DecaBDE (unlabeled)	122, 124, 125, 126, 127, 128, 129, 131, 134
Clonidine (4,4,5,5-imidazoline-D <sub>4</sub> ,98%)	166	DecaBDE Technical Mix (Saytex <sup>®</sup> 102E)	123
Clonidine (unlabeled)	166	DecaCB (Decachlorobiphenyl) (PCB-209) ( <sup>13</sup> C <sub>12</sub> ,99%)	69, 73, 74, 94, 96, 97, 98, 101, 103
CLP OLC Volatiles DMC Stock Solutions	154	DecaCB (unlabeled)	71, 72, 75, 94, 96, 97, 99, 100, 105, 106, 107, 108, 111
CLP OLC Volatiles Ketone DMC Stock Solution	154	<i>trans</i> -Decalin (D <sub>18</sub> ,98%)	185
CLP OLC Volatiles Non-Ketone DMC Stock Solution	154	Decalin (D <sub>18</sub> ,99%) (cis/trans mixture)	185
CLP SOM Volatiles 1,4-Dioxane DMC Stock Solution	155	<i>n</i> -Decane (D <sub>22</sub> ,98%)	159, 181
CLP SOM Volatiles Ketone DMC Stock Solution	155	Dechlorane Plus <i>anti</i> ( <sup>13</sup> C <sub>10</sub> ,99%)	123
CLP SOM Volatiles Non-Ketone DMC Stock Solution	155	Dechlorane Plus <i>anti</i> (unlabeled)	123, 216
CLP Volatiles DMC Stock Solutions	154	Dechlorane Plus <i>syn</i> ( <sup>13</sup> C <sub>10</sub> ,99%)	123
Codeine (D <sub>6</sub> ,98%)	166	Dechlorane Plus <i>syn</i> (unlabeled)	123, 216
Codeine (unlabeled)	166	Dechlorane Plus Technical Product (unlabeled)	123
Cod Liver Oil Reference Material	35	Dehydroepiandrosterone (DHEA) (2,2,3,4,4,6-D <sub>6</sub> ,99%)	201, 203
Comprehensive Heptachlorodibenzofuran Column Defining Kit	11	Desethylatrazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 203
Comprehensive Hexachlorodibenzofuran Column Defining Kit	11	Desethylatrazine (unlabeled)	201, 203
Comprehensive Hexachlorodibenzo- <i>p</i> -dioxin Column Defining Kit	11	Desethyl desisopropyl atrazine ( <sup>13</sup> C <sub>3</sub> ,99%)	201
Comprehensive Native PCB Mixture	106	Desethyl desisopropyl atrazine (unlabeled)	201
Comprehensive Pentachlorodibenzofuran Column Defining Kit	11	Desethyl desisopropylhydroxyatrazine (Ammeline) (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 203
Comprehensive Pentachlorodibenzo- <i>p</i> -dioxin Column Defining Kit	11	Desethyl desisopropylhydroxyatrazine (Ammeline) (unlabeled)	201, 203
Comprehensive Polychlorinated Dioxin and Furan Column Defining Kit	11	Desethylhydroxyatrazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 203
Comprehensive Tetrachlorodibenzofuran Column Defining Kit	11	Desethylhydroxyatrazine (unlabeled)	201, 204
Comprehensive Tetrachlorodibenzo- <i>p</i> -dioxin Column Defining Kit	11	Desisopropylatrazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 204
Contaminated Natural Matrix Reference Material (Fish)	34	Desisopropylatrazine (unlabeled)	201, 204
Co-PCB Calibration Solutions	89	Desisopropylhydroxyatrazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 204
Co-PCB Syringe Spike	91	Diazepam (D <sub>5</sub> ,98%)	166
Coplanar PCB Mixture	103	Diazepam (unlabeled)	166
Coronene (D <sub>12</sub> ,97%)	141	Diazinon (diethyl-D <sub>10</sub> ,98%)	177, 198, 204
Coronene (unlabeled)	143	Diazinon (unlabeled)	198, 204
Cortisol (9,11,12,12-D <sub>4</sub> ,98%)	164	Dibenz[ <i>a,h</i> ]anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	139, 144, 185
Cortisol (unlabeled)	164	Dibenz[ <i>a,h</i> ]anthracene (D <sub>14</sub> ,98%)	141, 144, 145, 157, 185
(+/-)-Cotinine (D <sub>3</sub> ,98%)	166	Dibenz[ <i>a,h</i> ]anthracene (unlabeled)	143, 145, 185
(-)-Cotinine (unlabeled)	166	Dibenz[ <i>a,j</i> ]acridine (D <sub>13</sub> ,98%)	141
<i>o</i> -Cresol (D <sub>8</sub> ,98%)	184	Dibenz[ <i>a,j</i> ]acridine (unlabeled)	143
<i>p</i> -Cresol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	184	Dibenz[ <i>a,e</i> ]fluoranthene (unlabeled)	143
<i>p</i> -Cresol (D <sub>8</sub> ,98%)	184	Dibenz[ <i>a,e</i> ]pyrene ( <sup>13</sup> C <sub>6</sub> ,99%)	139
Cyanuric acid ( <sup>13</sup> C <sub>3</sub> ,99%; <sup>15</sup> N <sub>3</sub> ,98%+)	168	Dibenz[ <i>a,e</i> ]pyrene (unlabeled)	143
Cyanuric acid (unlabeled)	168	Dibenz[ <i>a,h</i> ]pyrene (unlabeled)	143
Cyclohexyl methylphosphonic acid (unlabeled)	198, 203, 220	Dibenz[ <i>a,i</i> ]pyrene ( <sup>13</sup> C <sub>12</sub> ,99%)	140
Cyfluthrin (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	200, 203	Dibenz[ <i>a,i</i> ]pyrene (D <sub>14</sub> ,98%)	141
Cyfluthrin (unlabeled)	200, 203	Dibenz[ <i>a,i</i> ]pyrene (unlabeled)	143
Cypermethrin (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	200, 203	7H-Dibenz[ <i>c,g</i> ]carbazole (D <sub>12</sub> ,98%)	141
Cypermethrin (unlabeled)	200, 203	7H-Dibenz[ <i>c,g</i> ]carbazole (unlabeled)	143
Daidzein (3',5',8-D <sub>3</sub> ,97%)	176	Dibenzofuran ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 185
Daidzein (unlabeled)	176	Dibenzofuran (D <sub>8</sub> ,98%)	159, 185
DCCA (3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid) (carboxyl- <sup>13</sup> C <sub>2</sub> ,99%; 1-D,98%)	200	Dibenzofuran (unlabeled)	8, 185
DCCA (3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid) (unlabeled)	200	Dibenzo- <i>p</i> -dioxin ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 185
2,4'-DDD [( <i>o,p'</i> -Dichlorodiphenyl) dichloroethane] ( <sup>13</sup> C <sub>12</sub> ,99%)	176, 184, 196, 203, 208, 212, 213, 214, 215	Dibenzo- <i>p</i> -dioxin (unlabeled)	4, 185
2,4'-DDD (unlabeled)	184, 196, 203, 208, 210, 212, 213, 214	Dibenzothiophene (D <sub>8</sub> ,98%)	159, 185
4,4'-DDD [( <i>p,p'</i> -Dichlorodiphenyl) dichloroethane] ( <sup>13</sup> C <sub>12</sub> ,99%)	176, 184, 196, 203, 208, 212, 213, 214, 215		
4,4'-DDD (ring-D <sub>8</sub> ,98%)	176, 184, 196, 203		
4,4'-DDD (unlabeled)	184, 196, 203, 208, 209, 210, 212, 213, 214, 215, 217		
2,4'-DDE [( <i>o,p'</i> -Dichlorodiphenyl) dichloroethylene] ( <sup>13</sup> C <sub>12</sub> ,99%)	176, 185, 196, 203, 208, 209, 212, 213, 214, 215, 219		
2,4'-DDE (unlabeled)	176, 185, 196, 203, 208, 210, 212, 213, 214, 215, 218, 219		

# Index

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
1,4-Dibromobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	185	1,8-Dichloronaphthalene (unlabeled)	146
1,4-Dibromobenzene (D <sub>4</sub> ,98%)	185	2,3-Dichloronaphthalene (unlabeled)	146
1,2-Dibromo-3-chloropropane ( <sup>13</sup> C <sub>3</sub> ,99%)	179	2,4-Dichlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 152, 179
2,8-DiBDF ( <sup>13</sup> C <sub>12</sub> ,99%) (Dibromodibenzofuran)	13	2,4-Dichlorophenol (3,5,6-D <sub>3</sub> ,98%)	154, 156, 175, 186
2,8-DiBDF (unlabeled)	14	2,4-Dichlorophenol (ring-D <sub>3</sub> , OD,98%)	177, 186
3,4-Dibromo-3',4'-DiCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112	2,4-Dichlorophenol (unlabeled)	175
3,4-Dibromo-3',4'-DiCB (unlabeled)	112	2,5-Dichlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175
2,3-Dibromo-7,8-Dichlorodibenzo- <i>p</i> -dioxin	15	2,6-Dichlorophenol (unlabeled)	152
2,4-DiBDE (Dibromodiphenyl ether) (BDE-7) (unlabeled)	119, 126, 127, 130, 132, 133	2,4-Dichlorophenoxyacetic acid (2,4-D) (ring- <sup>13</sup> C <sub>6</sub> ,99%)	177, 204
2,4'-DiBDE (BDE-8) (unlabeled)	119, 130, 132, 133	2,4-Dichlorophenoxyacetic acid (2,4-D) (ring-D <sub>3</sub> ,98%)	204
2,6-DiBDE (BDE-10) (unlabeled)	119, 130, 132, 133	2,4-Dichlorophenoxyacetic acid (2,4-D) (unlabeled)	204
3,3'-DiBDE(BDE-11) (unlabeled)	119, 130, 132, 133	1,2-Dichloropropane (D <sub>6</sub> ,98%)	154, 155, 158, 186
3,4-DiBDE (BDE-12) (unlabeled)	119, 130, 132, 133	1,3-Dichloropropene (cis/trans mixture) (D <sub>4</sub> ,98%)	154, 155, 158, 186
3,4'-DiBDE (BDE-13) (unlabeled)	119, 130, 132, 133	2,6-Dichlorosyringaldehyde (unlabeled)	153
4,4'-DiBDE (BDE-15) ( <sup>13</sup> C <sub>12</sub> ,99%)	117, 126, 127, 128, 129, 130, 131, 133	5,6-Dichlorovanillin (unlabeled)	153, 186
4,4'-DiBDE (unlabeled)	119, 126, 127, 128, 129, 130, 132, 133	3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid (DCCA) (carboxyl- <sup>13</sup> C <sub>2</sub> ,99%; 1-D,98%)	204
1,2-Dibromoethane ( <sup>13</sup> C <sub>2</sub> ,99%)	185	3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid (DCCA) (unlabeled)	204
2,4-Dibromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175	Dichlorprop (ring- <sup>13</sup> C <sub>6</sub> ,99%)	204
2,6-Dibromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175	Dichlorprop (unlabeled)	204
2,4-Dibromophenol (unlabeled)	175	Dichlorvos (dimethyl-D <sub>6</sub> ,98%)	198, 204
2,6-Dibromophenol (unlabeled)	175	Dichlorvos (unlabeled)	198, 204
3,4-Dibromo-3',4',5'-TriCB ( <sup>13</sup> C <sub>12</sub> ,99%)	112	Dicyclohexyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	170
3,4-Dibromo-3',4',5'-TriCB (unlabeled)	112	Dicyclohexyl phthalate (unlabeled)	170
2,2'-DiCB (Dichlorobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-4)	67, 73, 74	Dieldrin ( <sup>13</sup> C <sub>12</sub> ,99%)	177, 186, 195, 197, 204, 208, 209, 212, 213, 214, 215, 216, 217, 219
2,2'-DiCB (unlabeled)	70, 72, 75, 106	Dieldrin (unlabeled)	177, 186, 195, 197, 204, 208, 210, 212, 213, 214, 216, 218
2,4'-DiCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-8)	67, 96	O,O-Diethyl dithiophosphate, potassium salt (unlabeled)	198, 204, 220
2,4'-DiCB (unlabeled)	70, 96, 97, 106, 107	Diethylene glycol (D <sub>8</sub> ,98%)	168
2,5-DiCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-9)	67, 73	Diethylene glycol (unlabeled)	168
2,5-DiCB (unlabeled)	70, 106, 107	Diethyl ether (D <sub>10</sub> ,99%)	158, 186
2,6-DiCB (unlabeled) (PCB-10)	70, 106, 107, 111	Diethyl hydrogen phosphate (unlabeled)	204, 220
3,3'-DiCB (unlabeled) (PCB-11)	70, 106	N,N-Diethyl-m-toluamide (DEET) (dimethyl-D <sub>6</sub> ,98%)	163, 204
3,4-DiCB (unlabeled) (PCB-12)	70, 106, 107	N,N-Diethyl-m-toluamide (DEET) (unlabeled)	163, 204
4,4'-DiCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-15)	67, 73, 74, 97, 104, 209, 210, 212	Diethyl phosphate (unlabeled)	198
4,4'-DiCB (unlabeled)	70, 72, 75, 106, 107, 111	Diethyl phthalate (3,4,5,6-D <sub>4</sub> ,99%)	156
2,3-DiCDD (Dichlorodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	3	Diethyl phthalate (ring-D <sub>4</sub> ,99%)	170, 177, 186
2,3-DiCDD (unlabeled)	50, 53	Diethyl phthalate (unlabeled)	170, 177
2,7/2,8-DiCDD Isomer Pair ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 53	Diethylstilbestrol (cis/trans mix) (ring-3,3',5,5'-diethyl-1,1,1',1'-D <sub>8</sub> ,98%)	164
2,7/2,8-DiCDD (unlabeled)	4, 55	Diethylstilbestrol (cis/trans mix) (unlabeled)	164
2,3-DiCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	50, 53	O,O-Diethyl thiophosphate, potassium salt (diethyl-D <sub>10</sub> ,98%)	198, 204, 220
2,4-DiCDF (Dichlorodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 53	O,O-Diethyl thiophosphate, potassium salt (unlabeled)	198, 204, 220
2,4-DiCDF (unlabeled)	55	2,2'-Difluorobiphenyl (unlabeled)	153
2,8-DiCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 50, 53	Diiodomethane ( <sup>13</sup> C,99%)	186
2,8-DiCDF (unlabeled)	8, 50	Diisopropyl methylphosphonate (D <sub>14</sub> ,98%)	198, 220
1,3-Dichloro-2-propanol (D <sub>5</sub> ,98%)	186	Diisopropyl methylphosphonate (unlabeled)	198, 220
1,3-Dichloro-2-propanol (unlabeled)	186	Dimethoate (O,O-dimethyl-D <sub>6</sub> ,98%)	198, 204
3,4-Dichloro-3',4',5'-TriBB ( <sup>13</sup> C <sub>12</sub> ,99%)	112, 113	Dimethoate (unlabeled)	198, 204
3,4-Dichloro-3',4',5'-TriBB Certified Standard (unlabeled)	112, 113	4-(1,3-Dimethyl-1-ethylpentyl) phenol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172
2,6-Dichloro-4-nitroaniline (Dicloran) (ring- <sup>13</sup> C <sub>6</sub> ,99%)	197, 204	4-(1,4-Dimethyl-1-ethylpentyl) phenol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172
3,4-Dichloroaniline ( <sup>13</sup> C <sub>6</sub> ,99%)	185	4-(1,3-Dimethyl-1-ethylpentyl) phenol (unlabeled)	172
1,2-Dichlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	175	4-(1,4-Dimethyl-1-ethylpentyl) phenol (unlabeled)	172
1,2-Dichlorobenzene (D <sub>4</sub> ,99%)	154, 155, 157, 185	N,N-Dimethylaniline (D <sub>11</sub> ,98%)	186
1,3-Dichlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	175, 185	9,10-Dimethylanthracene (D <sub>14</sub> ,98%)	141
1,3-Dichlorobenzene (D <sub>4</sub> ,98%)	156	O,O-Dimethyl dithiophosphate, sodium salt (unlabeled)	198, 204, 220
1,4-Dichlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 185	N,N-Dimethylformamide (carbonyl- <sup>13</sup> C,99%)	186
1,4-Dichlorobenzene (D <sub>4</sub> ,98%)	157, 185	Dimethyl hydrogen phosphate (unlabeled)	204, 220
1,4-Dichlorobenzene (unlabeled)	151, 157, 185	O,O-Dimethyl hydrogen thiophosphate (unlabeled)	204, 220
3,3'-Dichlorobenzidine (ring-D <sub>6</sub> ,98%)	157, 185	1,8-Dimethylnaphthalene (D <sub>12</sub> ,98%)	141
3,4-Dichlorocatechol (unlabeled)	152	1,8-Dimethylnaphthalene (unlabeled)	143
3,6-Dichlorocatechol (unlabeled)	152	1,6-Dimethylnaphthalene (D <sub>12</sub> ,98%)	141
4,5-Dichlorocatechol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	152	2,6-Dimethylnaphthalene (D <sub>12</sub> ,98%)	141
4,5-Dichlorocatechol (unlabeled)	152, 185	2,6-Dimethylnaphthalene (unlabeled)	143
1,1-Dichloroethane (2,2,2-D <sub>3</sub> ,98%)	158, 186	2,4-Dimethylphenol (ring-D <sub>3</sub> ,98%)	156, 186
1,2-Dichloroethane (D <sub>4</sub> ,99%)	154, 155, 158, 186	Dimethyl phosphate (unlabeled)	198
1,1-Dichloroethylene (random- <sup>13</sup> C,99%)	179	Dimethyl phthalate (3,4,5,6-D <sub>4</sub> ,99%)	157, 170, 186
1,1-Dichloroethene (D <sub>2</sub> ,98%)	154, 155, 158, 186	Dimethylphthalate (dimethyl-D <sub>6</sub> ,98%)	154
1,1-Dichloroethylene (2,2-D <sub>2</sub> ,98%)	154, 155, 158, 186	Dimethyl Tetrabromobisphenol A (unlabeled)	123
1,1-Dichloroethylene (unlabeled)	179	O,S-Dimethyl thiophosphate, sodium salt (unlabeled)	198, 204, 220
1,2-Dichloroethylene ( <sup>13</sup> C,99%) (cis/trans mix)	179		
1,2-Dichloroethylene (cis/trans mixture) (1,2-D <sub>2</sub> ,98%)	158, 186		
1,2-Dichloroethylene (unlabeled) (cis/trans mix)	179		
3,4-Dichloroguaiacol (unlabeled)	152, 153		
4,5-Dichloroguaiacol (unlabeled)	152, 153		
4,6-Dichloroguaiacol (unlabeled)	152, 153		
1,2-Dichloronaphthalene (unlabeled)	146		
1,4-Dichloronaphthalene (unlabeled)	146		
1,5-Dichloronaphthalene (unlabeled)	146		



Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
Di- <i>n</i> -butylamine (D <sub>18</sub> ,98%)	157	Endrin ( <sup>13</sup> C <sub>12</sub> ,99%)	177, 187, 195, 197, 205, 208, 209, 212, 213, 214, 215, 217, 219
Di- <i>n</i> -butyl phthalate (3,4,5,6-D <sub>4</sub> ,99%)	156, 170, 177, 185	Endrin (unlabeled)	177, 187, 195, 197, 205, 208, 210, 212, 213, 214, 218
Di- <i>n</i> -hexyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	170, 177	Endrin aldehyde ( <sup>13</sup> C <sub>12</sub> ,99%)	177, 187, 195, 197, 205
Di- <i>n</i> -hexyl phthalate (unlabeled)	170, 177	Endrin ketone ( <sup>13</sup> C <sub>12</sub> ,99%)	177, 195, 197, 205
4,6-Dinitro-2-methylphenol (3,5-D <sub>2</sub> ,98%)	156	EPA 1624/1625 Standards Kit	159
4,6-Dinitro-2-methylphenol (ring-D <sub>2</sub> ,98%)	154, 186	EPA Method 1614 Calibration Solutions	124
1,3-Dinitrobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	180	EPA Method 1614 Labeled Cleanup Stock Solution	125
1,3-Dinitrobenzene (D <sub>4</sub> ,98%)	186	EPA Method 1614 Labeled Injection Internal Stock Solution	125
1,3-Dinitrobenzene (unlabeled)	180	EPA Method 1614 Labeled Surrogate Stock Solution	125
2,4-Dinitrophenol (ring-D <sub>3</sub> ,98%)	156, 180, 186	EPA Method 1614 Native PAR Stock Solution	125
2,4-Dinitrotoluene (3,5,6-D <sub>3</sub> ,98%)	156	Epichlorohydrin ( <sup>13</sup> C <sub>3</sub> ,99%)	179, 187
2,6-Dinitrotoluene (methyl-D <sub>3</sub> ,98%)	157, 180, 186	Epichlorohydrin (D <sub>5</sub> ,98%)	179, 187
2,4-Dinitrotoluene (ring-D <sub>3</sub> ,98%)	180, 186	Epichlorohydrin (unlabeled)	179, 187
2,4-Dinitrotoluene (unlabeled)	180	Erythromycin (90-95% Erythromycin A) (N,N-dimethyl- <sup>13</sup> C <sub>2</sub> ,~90%)	167
2,6-Dinitrotoluene (unlabeled)	180	Erythromycin (unlabeled)	167
Dinocap (ring- <sup>13</sup> C <sub>6</sub> ,99%)	204	Estradiol (3,4- <sup>13</sup> C <sub>2</sub> ,99%)	164
Di- <i>n</i> -octyl phthalate (ring-D <sub>4</sub> ,98%)	156, 170, 186	DL-Estradiol (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	164
Di- <i>n</i> -octyl phthalate (unlabeled)	170, 186	Estradiol (unlabeled)	164
Di- <i>n</i> -pentyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	170, 177	Estriol (2,4,16,17-D <sub>4</sub> ,98%)	164
Di- <i>n</i> -propyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	177	Estriol (unlabeled)	164
Di- <i>n</i> -propyl phthalate (unlabeled)	177	Estrone (3,4- <sup>13</sup> C <sub>2</sub> ,90%)	164
1,4-Dioxane ( <i>p</i> -Dioxane) (D <sub>8</sub> ,99%)	155, 158, 186	DL-Estrone (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	164
1,4-Dioxane ( <i>p</i> -Dioxane) (unlabeled)	186	Estrone (unlabeled)	164
Dioxin and Furan Cleanup Spike	52, 54	4-(1-Ethyl-1-methylhexyl) phenol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172
Dioxin Cleanup Spike	40	4-(1-Ethyl-1-methylhexyl) phenol (unlabeled)	172
Dioxin/Furan Calibration Solutions	41, 42	Ethylbenzene (D <sub>10</sub> ,98%)	158, 187
Dioxin Furan Calibration Solutions with first and closest TCDD Eluters and Non-2,3,7,8-Containing <sup>13</sup> C PCDFs	43	Ethylbenzene (D <sub>10</sub> ,99%)	187
Dioxin/Furan Syringe Spike	40	Ethylbenzene (ethyl-D <sub>5</sub> ,98%)	187
Dioxin Sampling Spike	40	Ethyl dimethylamidophosphate, sodium salt ( <sup>13</sup> C <sub>4</sub> ,99%)	198, 220
Dioxin Syringe Spike	40	Ethyl dimethylamidophosphate, sodium salt (unlabeled)	198, 220
Diphenylamine (D <sub>10</sub> ,98%)	157	Ethylene oxide ( <sup>13</sup> C <sub>2</sub> ,99%)	187
Diphenylamine (diphenyl-D <sub>10</sub> ,98%)	186	Ethylene oxide (D <sub>4</sub> ,99%)	187
Diphenyl ether ( <sup>13</sup> C <sub>12</sub> ,99%)	117, 186	Ethyl hydrogen methylphosphonate (ethyl-D <sub>5</sub> ,98%)	220
Diphenyl ether (phenyl-D <sub>10</sub> ,98%)	159, 186	Ethyl methylphosphonate (ethyl-D <sub>5</sub> ,98%)	198
5,5-Diphenylhydantoin (2- <sup>13</sup> C <sub>2</sub> ,99%;1,3- <sup>15</sup> N <sub>2</sub> ,98%)	166	Ethyl methylphosphonic acid (unlabeled)	198, 205, 220
5,5-Diphenylhydantoin (unlabeled)	166	Ethynylestradiol (20,21- <sup>13</sup> C <sub>2</sub> ,99%)	164
1,2-Diphenylhydrazine (D <sub>10</sub> ,98%)	157	Ethynylestradiol (unlabeled)	164
1,2-Diphenylhydrazine (diphenyl-D <sub>10</sub> ,98%)	186	Expanded POPs Pesticides Calibration Solutions	208
Disulfoton (O,O-diethyl-D <sub>10</sub> ,98%)	198, 204	Expanded POPs Pesticides Cleanup Spike	209
2,6-Di(tert-butyl)-4-methylphenol (BHT) (D <sub>21</sub> ,98%)	177, 187	Expanded POPs Pesticides PAR Solution	210
1,4-Dithiane (D <sub>4</sub> ,98%)	220	Expanded POPs Pesticides Sampling Spike	210
D-Labeled PAH Cocktail for CARB Method 429	144	Fenitrothion (O,O-dimethyl-D <sub>6</sub> ,98%)	198, 205
D-Labeled PAH Surrogate Cocktail	144	Fluoranthene ( <sup>13</sup> C <sub>6</sub> ,99%)	140, 144, 187
DL-PCB RH12 Calibration Solutions	92	Fluoranthene (D <sub>10</sub> ,98%)	141, 144, 145, 156, 187
DL-PCB RH12 Extended Calibration Solutions	92	Fluoranthene (unlabeled)	143
DL-PCB RH12 Extraction Spike	93	Fluorene ( <sup>13</sup> C <sub>6</sub> ,99%)	140, 144, 187
DL-PCB RH12 Sampling Spike	93	Fluorene (D <sub>10</sub> ,98%)	141, 144, 145, 154, 157, 187
DL-PCB RH12 Syringe Spike	93	Fluorene (unlabeled)	143, 145, 187
<i>n</i> -Dodecane (D <sub>26</sub> ,98%)	159, 181	4-Fluoro-3-phenoxybenzoic acid ( <sup>13</sup> C <sub>6</sub> ,99%)	200, 205
<i>n</i> -Dotriacontane (D <sub>66</sub> ,98%)	181	4-Fluoro-3-phenoxybenzoic acid (unlabeled)	200, 205
DSJ PCB Mixture	105	Fluoxetine-HCl (unlabeled)	166
Durene (1,2,4,5-Tetramethylbenzene) (D <sub>14</sub> ,98%)	187	Fluoxetine oxalate (D <sub>6</sub> ,98%)	166
		Fly Ash Reference Material	35
“EEC Six” PAH Cocktail	145	Fonofos (ring- <sup>13</sup> C <sub>6</sub> ,99%)	198, 205
<i>n</i> -Eicosane (D <sub>42</sub> ,98%)	159, 181	Fonofos (unlabeled)	198, 205
EN-1948-4 Marker PCB Calibration Series	78	Fortified Cod Liver Oil Reference Material	35
EN-1948-4 Marker PCB Extraction Standard	78	Fortified Natural Matrix Reference Material (Fish)	34
EN-1948-4 PCB Recovery Standard	77, 78	Fully Resolved Native Mono-Deca PCB Mixture	107
EN-1948-4 PCB Sampling Standard	77, 78	Gemfibrozil (2,2-dimethyl-D <sub>6</sub> ,98%)	166
EN-1948-4 WHO PCB Calibration Series	76	Gemfibrozil (unlabeled)	166
EN-1948-4 WHO PCB Extraction Standard	77	Genistein (3',5',6,8-D <sub>4</sub> ,95%)	177
EN-1948 Calibration Solutions	32	Glyphosate (2- <sup>13</sup> C,99%; <sup>15</sup> N,98+%)	198, 205
EN-1948 Extraction Standard Solution	33	Glyphosate (unlabeled)	198, 205
EN-1948 Native Stock Response Factor Solution	33	Guaiacol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	187
EN-1948 Sampling Standard Solution	33	HALOWAX 1000	147
EN-1948 Syringe Standard Solution	33	HALOWAX 1013	147
Endosulfan I ( <sup>13</sup> C <sub>9</sub> ,99%)	177, 187, 195, 197, 205, 209	HALOWAX 1051	147
Endosulfan I (D <sub>4</sub> ,97%)	177, 187, 195, 197, 205		
Endosulfan I (unlabeled)	177, 187, 195, 197, 205, 208, 210		
Endosulfan II ( <sup>13</sup> C <sub>9</sub> ,99%)	177, 187, 195, 197, 205, 209		
Endosulfan II (unlabeled)	177, 187, 195, 197, 205, 208, 210		
Endosulfan sulfate ( <sup>13</sup> C <sub>9</sub> ,99%)	187, 195, 197, 205		
Endosulfan sulfate (unlabeled)	187, 195, 197, 205		

Product	Page	Product	Page
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α-HCH (α-BHC) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209, 212, 213, 215, 217, 219	1,2,3,4,6,7,8-HpCDD (Heptachlorodibenzo-p-dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 47, 49, 51, 52, 53, 54
α-HCH (α-BHC) (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 218	1,2,3,4,6,7,8-HpCDD (unlabeled)	5, 11, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55, 56
β-HCH (β-BHC) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209, 212, 213, 215, 216, 217, 219	1,2,3,4,6,7,9-HpCDD (unlabeled)	11, 20, 36, 56
β-HCH (β-BHC) (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 218	1,2,3,4,6,7,8-HpCDF (Heptachlorodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 10, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55, 56
γ-HCH (γ-BHC) (Lindane) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209	1,2,3,4,6,7,8-HpCDF (unlabeled)	10, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55, 56
γ-HCH (γ-BHC) (Lindane) ( <sup>13</sup> C <sub>6</sub> ,99%;D <sub>6</sub> ,99%)	182, 196, 202	1,2,3,4,6,7,9-HpCDF (unlabeled)	10
γ-HCH (γ-BHC) (Lindane) (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 216, 218	1,2,3,4,6,8,9-HpCDF (unlabeled)	10
δ-HCH (δ-BHC) ( <sup>13</sup> C <sub>6</sub> ,99%)	182, 196, 202, 209, 212, 213, 215	1,2,3,4,6,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	40, 41, 42, 43, 44, 45, 46, 47, 49
δ-HCH (δ-BHC) (unlabeled)	182, 196, 202, 209, 210, 212, 213, 215	1,2,3,4,7,8,9-HpCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
Heavily Contaminated Sediment Reference Material	34	1,2,3,4,7,8,9-HpCDF (unlabeled)	10, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55, 56
2,2',3,3',4,5',6-HeptaBDE (Heptabromodiphenyl ether) (BDE-175) (unlabeled)	121	Heptachlor ( <sup>13</sup> C <sub>10</sub> ,99%)	177, 187, 195, 197, 205, 208, 209, 212, 213, 214, 215, 217
2,2',3,4,4',5,6-HeptaBDE (BDE-181) (unlabeled)	121, 126, 127, 130, 132, 133	Heptachlor (unlabeled)	177, 187, 195, 197, 205, 208, 210, 212, 213, 214
2,2',3,4,4',5',6-HeptaBDE (BDE-183) ( <sup>13</sup> C <sub>12</sub> ,99%)	117, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135	cis-Heptachlor epoxide (B isomer) ( <sup>13</sup> C <sub>10</sub> ,99%)	187, 195, 197, 205, 208, 209, 212, 213, 214, 215, 215, 217, 219
2,2',3,4,4',5',6-HeptaBDE (unlabeled)	121, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134	cis-Heptachlor Epoxide (B isomer) (unlabeled)	187, 195, 197, 205, 208, 210, 212, 213, 214, 216, 218
2,3,3',4,4',5,6-HeptaBDE (BDE-190) ( <sup>13</sup> C <sub>12</sub> ,99%)	117	trans-Heptachlor Epoxide (A isomer) (unlabeled)	187, 195, 197, 205, 208, 209, 212, 213, 214, 215, 217, 219
2,3,3',4,4',5,6-HeptaBDE (unlabeled)	121, 126, 127, 130, 131, 132, 133	1,2,3,4,5,6,7-Heptachloronaphthalene ( <sup>13</sup> C <sub>10</sub> ,99%)	146, 147
1,2,3,4,6,7,8-HpBDD (Heptabromodibenzo-p-dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59	1,2,3,4,5,6,7-Heptachloronaphthalene (unlabeled)	146, 147
1,2,3,4,6,7,8-HpBDD (unlabeled)	12, 58, 59	1,2,3,4,5,6,8-Heptachloronaphthalene (unlabeled)	146
1,2,3,4,6,7,8-HpBDF ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 58, 59, 60, 61	n-Heptadecane (D <sub>36</sub> ,98%)	181
1,2,3,4,6,7,8-HpBDF (unlabeled)	14, 58, 60, 64	n-Heptane (D <sub>16</sub> ,98%)	181
2,2',3,3',4,4',5-HeptaCB (Heptachlorobiphenyl) (PCB-170) ( <sup>13</sup> C <sub>12</sub> ,99%)	39, 40, 49, 69, 76, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 96, 97, 98, 101, 102, 104	2,2',4,4',5,5'-HexaBB (Hexabromobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%) (PBB-153)	122, 134, 135
2,2',3,3',4,4',5-HeptaCB (unlabeled)	48, 71, 79, 80, 82, 85, 86, 87, 88, 89, 91, 92, 99, 100, 105, 106, 108, 109	2,2',4,4',5,5'-HexaBB ( <sup>13</sup> C <sub>12</sub> ,99%) (PBB-153)	122, 134, 135
2,2',3,3',4,5,5'-HeptaCB (PCB-172) (unlabeled)	71, 99, 100, 108	2,2',4,4',5,5'-HexaBB Certified Standard (PBB-153)	122, 134
2,2',3,3',4,5,6'-HeptaCB (PCB-174) (unlabeled)	71, 106	2,3,3',4,4',5'-HexaBB ( <sup>13</sup> C <sub>12</sub> ,99%) (PBB-157)	122
2,2',3,3',4',5,6-HeptaCB (PCB-177) (unlabeled)	71, 99, 100, 105, 108	2,3,3',4,4',5'-HexaBB Certified Standard (PBB-157)	122
2,2',3,3',5,5',6-HeptaCB (PCB-178) ( <sup>13</sup> C <sub>12</sub> ,99%)	49, 69, 73, 74, 80, 81, 82, 89, 91, 98, 101, 103	2,2',3,3',4,4'-HexaBDE (Hexabromodiphenyl ether)	121
2,2',3,3',5,5',6-HeptaCB (unlabeled)	71, 99, 100, 106, 108, 110	2,2',3,4,4',5'-HexaBDE (BDE-138) ( <sup>13</sup> C <sub>12</sub> ,99%)	117, 126, 127
2,2',3,4,4',5,5'-HeptaCB (PCB-180) ( <sup>13</sup> C <sub>12</sub> ,99%)	39, 40, 49, 78, 80, 81, 82, 85, 86, 87, 88, 89, 90, 92, 93, 94, 95, 96, 97, 98, 101, 102, 103	2,2',3,4,4',5'-HexaBDE (unlabeled)	126, 127, 130, 131, 132, 133
2,2',3,4,4',5,5'-HeptaCB (unlabeled)	48, 71, 78, 79, 80, 82, 85, 86, 87, 88, 89, 91, 92, 93, 94, 95, 96, 97, 99, 100, 106, 108, 109, 110	2,2',3,4,4',6-HexaBDE (BDE-139) ( <sup>13</sup> C <sub>12</sub> ,99%)	38, 117, 124, 125, 131, 132, 133, 134, 135, 216, 219
2,2',3,4,4',5',6-HeptaCB (PCB-183) (unlabeled)	99, 100, 105, 108	2,2',3,4,4',6-HexaBDE (unlabeled)	121, 124, 125, 131, 132, 133, 134, 135
2,2',3,4',5,5',6-HeptaCB (PCB-187) (unlabeled)	71, 95, 99, 100, 105, 106, 108	2,2',3,4,4',6'-HexaBDE (BDE-140) (unlabeled)	121
2,2',3,4',5,6,6'-HeptaCB (PCB-188) ( <sup>13</sup> C <sub>12</sub> ,99%)	73, 74	2,2',3,4',5,6'-HexaBDE (BDE-148) (unlabeled)	121
2,2',3,4',5,6,6'-HeptaCB (unlabeled)	71, 72, 73, 74, 75, 106, 107, 111	2,2',4,4',5,5'-HexaBDE (BDE-153) ( <sup>13</sup> C <sub>12</sub> ,99%)	124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135
2,3,3',4,4',5,5'-HeptaCB (PCB-189) ( <sup>13</sup> C <sub>12</sub> ,99%)	39, 40, 49, 69, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 98, 101, 102, 103	2,2',4,4',5,5'-HexaBDE (unlabeled)	121, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135
2,3,3',4,4',5,5'-HeptaCB (unlabeled)	48, 71, 72, 73, 74, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 91, 92, 99, 100, 106, 107, 108, 109, 110, 111	2,2',4,4',6,6'-HexaBDE (unlabeled)	126, 127, 130, 132, 133
2,3,3',4,4',5,6-HeptaCB (PCB-191) (unlabeled)	105	2,2',4,4',5,6'-HexaBDE (BDE-154) ( <sup>13</sup> C <sub>12</sub> ,99%)	117, 124, 125, 126, 127, 128, 129, 134, 135
		2,2',4,4',5,6'-HexaBDE (unlabeled)	121, 124, 125, 126, 127, 128, 129, 130
		2,2',4,4',6,6'-HexaBDE (BDE-155) ( <sup>13</sup> C <sub>12</sub> ,99%)	117
		2,2',4,4',6,6'-HexaBDE (unlabeled)	117, 121

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
2,3,4,4',5,6-HexaBDE (BDE-166) (unlabeled)	121, 126, 127, 130, 132, 133	2,3',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-167)	39, 40, 49, 69, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 98, 101, 102, 103
1,2,3,4,7,8-HxBDD (Hexabromodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59, 60, 61, 62, 63	2,3',4,4',5,5'-HexaCB (unlabeled)	48, 71, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 91, 92, 99, 100, 106, 107, 108, 109, 110
1,2,3,4,7,8-HxBDD (unlabeled)	12, 58, 60, 62, 64	3,3',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-169)	36, 37, 39, 40, 49, 69, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 102, 103, 178
1,2,3,6,7,8-HxBDD ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59, 60, 61, 62, 63	3,3',4,4',5,5'-HexaCB (unlabeled)	36, 48, 71, 72, 75, 76, 80, 81, 83, 84, 86, 87, 88, 89, 90, 91, 92, 105, 106, 107, 109, 111
1,2,3,7,8,9-HxBDD ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59, 60, 61, 63	1,2,3,4,6,7-HxCDD (Hexachlorodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 46, 47, 49
1,2,3,7,8,9-HxBDD (unlabeled)	12, 58, 60, 62, 64	1,2,3,4,6,7-HxCDD (unlabeled)	5, 11, 56
1,2,3,4,7,8-HxBDF (Hexabromodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 58, 59, 60, 61, 63	1,2,3,4,6,8-HxCDD (unlabeled)	5, 11
1,2,3,4,7,8-HxBDF (unlabeled)	14, 58, 60, 62, 64	1,2,3,4,6,9-HxCDD (unlabeled)	5, 11
1,2,3,4,7,8-HxBDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54	1,2,3,4,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
1,2,3,4,7,8-HxBDF (unlabeled)	6, 10, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 33, 36, 42, 43, 44, 46, 48, 55	1,2,3,4,7,8-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
1,2,3,4,6,8-HxCDF	9	1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
Hexabromobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	134, 135, 175	1,2,3,6,7,8-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
Hexabromobenzene (unlabeled)	175	1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
Hexabromocyclododecane (HBCD) ( <sup>13</sup> C <sub>12</sub> ,99%)	123	1,2,3,6,7,8-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
α-Hexabromocyclododecane (HBCD) ( <sup>13</sup> C <sub>12</sub> ,99%)	123	1,2,3,6,7,8-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
α-Hexabromocyclododecane (HBCD) (unlabeled)	123	1,2,3,6,7,8-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
β-Hexabromocyclododecane (HBCD) ( <sup>13</sup> C <sub>12</sub> ,99%)	123	1,2,3,6,7,8-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
β-Hexabromocyclododecane (HBCD) (unlabeled)	123	1,2,3,6,7,8-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
γ-Hexabromocyclododecane (unlabeled)	123, 134, 135	1,2,3,6,7,9-HxCDD (unlabeled)	11
γ-Hexabromocyclododecane (HBCD) ( <sup>13</sup> C <sub>12</sub> ,99%)	123, 134, 135	1,2,3,6,8,9-HxCDD (unlabeled)	11
γ-Hexabromocyclododecane (HBCD) (unlabeled)	123	1,2,3,7,8,9-HxCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
2,2',3,3',4,4'-HexaCB (PCB-128) (Hexachlorobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%)	68, 92, 93, 96, 97, 98, 101	1,2,3,7,8,9-HxCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
2,2',3,3',4,4'-HexaCB (unlabeled)	70, 99, 100, 105, 108	1,2,4,6,7,9-HxCDD / 1,2,4,6,8,9-HxCDD Isomer Pair	5, 20, 56
2,2',3,4,4',5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-138)	49, 68, 73, 74, 78, 80, 81, 82, 83, 84, 86, 87, 88, 89, 91, 94, 95, 96, 98, 101, 103, 104, 124, 125	1,2,4,6,7,9-HxCDD (unlabeled)	11
2,2',3,4,4',5'-HexaCB (unlabeled)	70, 78, 94, 95, 96, 97, 100, 105, 106	1,2,4,6,8,9-HxCDD (unlabeled)	11
2,2',3,4,5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-141)	68, 95, 103	1,2,3,4,6,7-HxCDF (Hexachlorodibenzofuran) (unlabeled)	10
2,2',3,4,5,5'-HexaCB (unlabeled)	70, 110	1,2,3,4,6,8-HxCDF (unlabeled)	9, 10, 20, 56
2,2',3,4',5,5'-HexaCB (unlabeled) (PCB-146)	70, 99, 100, 108	1,2,3,4,6,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 40, 41, 42, 44, 45
2,2',3,4',5,5'-HexaCB (unlabeled) (PCB-149)	70, 95, 99, 100, 105, 106, 108	1,2,3,4,7,9-HxCDF (unlabeled)	10
2,2',3,5,5',6-HexaCB (unlabeled) (PCB-151)	71, 99, 100, 105, 108	1,2,3,4,8,9-HxCDF (unlabeled)	9, 10, 20, 56
2,2',4,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-153)	69, 78, 94, 95, 96, 97, 98, 101, 103	1,2,3,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
2,2',4,4',5,5'-HexaCB (unlabeled)	71, 78, 94, 95, 96, 97, 99, 100, 105, 106, 107, 108, 110	1,2,3,6,7,8-HxCDF (unlabeled)	9, 10, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
2,2',4,4',6,6'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-155)	69, 73, 74	1,2,3,6,7,9-HxCDF (unlabeled)	10
2,2',4,4',6,6'-HexaCB (unlabeled)	71, 72, 75, 106, 107, 111	1,2,3,6,8,9-HxCDF (unlabeled)	10
2,3,3',4,4',5-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-156)	39, 40, 49, 69, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 98, 101, 102, 103	1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
2,3,3',4,4',5-HexaCB (unlabeled)	48, 71, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 91, 92, 99, 100, 105, 106, 107, 108, 109, 110	1,2,3,7,8,9-HxCDF (unlabeled)	9, 10, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
2,3,3',4,4',5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-157)	39, 40, 49, 69, 73, 74, 76, 77, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 98, 101, 102, 103	1,2,3,6,7,9-HxCDF (unlabeled)	10
2,3,3',4,4',5'-HexaCB (unlabeled)	48, 71, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 91, 92, 99, 100, 105, 106, 107, 108, 109, 110	1,2,3,6,8,9-HxCDF (unlabeled)	10
2,3,3',4,4',6-HexaCB (unlabeled) (PCB-158)	71, 99, 100, 105, 108	1,2,3,7,8,9-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
2,3,3',4,5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-159)	69, 76, 77, 78, 92, 93	1,2,3,7,8,9-HxCDF (unlabeled)	9, 10, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 36, 41, 42, 43, 44, 46, 48, 55
2,3,3',4,5,5'-HexaCB (unlabeled)	71	1,2,4,6,7,8-HxCDF (unlabeled)	10
2,3,3',4',5,5'-HexaCB (unlabeled) (PCB-162)	71, 106, 107		



Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
1,2,4,6,7,9-HxCDF (unlabeled)	10	Internal Standard Mix – High	53
1,2,4,6,8,9-HxCDF (unlabeled)	10	Isobutyl hydrogen methylphosphonate (unlabeled)	199, 205, 220
1,3,4,6,7,8-HxCDF (unlabeled)	10	Isodrin ( <sup>13</sup> C <sub>12</sub> ,99%)	177, 195, 197, 205, 209, 210, 219
1,3,4,6,7,9-HxCDF (unlabeled)	10	Isodrin (unlabeled)	177, 195, 197, 205, 218
2,3,4,6,7,8-HxCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	7, 19, 20, 21, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 54	Isooctane (unlabeled)	188
2,3,4,6,7,8-HxCDF (unlabeled)	9, 10, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55	Isophorone (3-methyl-D <sub>5</sub> ;2,4,4,6,6-D <sub>5</sub> ,98%)	156, 188
2,2',3,4,5,5'-HexaCDE (Hexachlorodiphenyl ether) ( <sup>13</sup> C <sub>12</sub> ,99%)	113	Isopropyl methylphosphonic acid (D <sub>7</sub> ,98%)	220
2,3,3',4,4',5'-HexaCDE ( <sup>13</sup> C <sub>12</sub> ,99%)	179	Isopropyl methylphosphonic acid (unlabeled)	199, 205, 220
Hexachloro-1,3-butadiene ( <sup>13</sup> C <sub>4</sub> ,98%)	156, 187	JIS Dioxin/Furan Calibration Solutions	29, 31
Hexachloro-1,3-butadiene ( <sup>13</sup> C <sub>4</sub> ,99%)	156, 187	JIS Dioxin/Furan Type 1 and 2 Syringe Standard Solution	30
Hexachlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 156, 177, 187, 197, 205, 208, 209, 212, 213, 214, 215, 216, 217, 219	JIS Dioxin/Furan Type 1 Cleanup Standard Solution	30
Hexachlorobenzene (unlabeled)	151, 177, 187, 197, 205, 208, 210, 212, 213, 214, 215, 216, 217, 218, 219	JIS Dioxin/Furan Type 2 Cleanup Standard Solution	30
Hexachlorocyclopentadiene (random- <sup>13</sup> C <sub>4</sub> ,99%)	156, 187	JIS PCB Calibration Solutions: low concentration	79
Hexachloroethane (1- <sup>13</sup> C,99%)	156, 188	JIS PCB Type 1 Syringe Standard Solution	79
1,2,3,4,5,7-Hexachloronaphthalene ( <sup>13</sup> C <sub>10</sub> ,99%)	146	JIS Wastewater Dioxin/Furan Type 1 Cleanup Standard Solution	30
1,2,3,4,6,7-Hexachloronaphthalene (unlabeled)	146	Kepone (Chlordecone) ( <sup>13</sup> C <sub>10</sub> ,99%)	195, 197, 205, 209
1,2,3,5,6,7-Hexachloronaphthalene ( <sup>13</sup> C <sub>10</sub> ,99%)	146, 147	Kepone (Chlordecone) (unlabeled)	195, 197, 205, 208, 210
1,2,3,5,6,7-Hexachloronaphthalene (unlabeled)	146, 147	<sup>13</sup> C-Labeled PCB Standard (PCB-70 and PCB-170)	104
1,2,3,5,6,8-Hexachloronaphthalene (unlabeled)	146	Leucomalachite Green (phenyl- <sup>13</sup> C <sub>6</sub> ,99%)	188
1,2,3,5,7,8-Hexachloronaphthalene (unlabeled)	146	Leucomalachite Green (unlabeled)	188
1,2,3,6,7,8-Hexachloronaphthalene (unlabeled)	146	Lindane (γ-BHC) (γ-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%)	176, 182, 196, 202, 209, 212, 213, 215, 216, 217, 219
1,2,4,5,6,8-Hexachloronaphthalene (unlabeled)	146	Lindane (γ-BHC) (γ-HCH) ( <sup>13</sup> C <sub>6</sub> ,99%;D <sub>6</sub> ,99%)	182, 196, 202
1,2,4,5,7,8-Hexachloronaphthalene (unlabeled)	146	Lindane (γ-BHC) (γ-HCH) () (unlabeled)	182, 196, 202, 208, 210, 212, 213, 215, 216, 218
Hexachlorophene ( <sup>13</sup> C <sub>13</sub> ,99%)	163, 179	Lorazepam (D <sub>4</sub> ,98%)	166
Hexachlorophene (unlabeled)	163, 179	Lorazepam (unlabeled)	166
1,2,4,5,7,8-Hexachloroxanthene (unlabeled)	188	Malathion (D <sub>10</sub> ,99%)	177, 199, 205
n-Hexadecane (D <sub>34</sub> ,98%)	159, 181	Malathion (unlabeled)	177, 199, 205
n-Hexane (D <sub>14</sub> ,98%)	181	2-MBDF ( <sup>13</sup> C <sub>12</sub> ,99%) (Monobromodibenzofuran)	13
Hexanoic acid (D <sub>11</sub> ,98%)	188	2-MBDF (unlabeled)	14
2-Hexanone (1,1,1,3,3-D <sub>5</sub> ,98%)	154, 155	2-MCDD (Monochlorodibenzo-p-dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 50, 53
n-Hexatriacontane (D <sub>74</sub> ,98%)	181	2-MCDD	4, 50, 55
HMX ( <sup>13</sup> C <sub>4</sub> ,99%;ring- <sup>15</sup> N <sub>4</sub> ,98%)	180	2-MCDF (Monochlorodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 50, 53
HMX (unlabeled)	180	2-MCDF	8, 50, 55
Hydroquinone (ring-D <sub>4</sub> ,98%)	188	Melamine ( <sup>13</sup> C <sub>3</sub> ,99%;amino- <sup>15</sup> N <sub>3</sub> ,98%)	168
Hydroxyatrazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 205	Melamine (unlabeled)	168
Hydroxyatrazine (unlabeled)	201, 205	(-)-Menthol (1,2,6,6-D <sub>4</sub> ,98%)	169
4-Hydroxybenzoic acid (ring- <sup>13</sup> C <sub>6</sub> ,99%)	179	4-MeSO <sub>2</sub> -2,2',3,3',4',6-HexaCB (unlabeled)	114
Hydroxybenzoic acid (ring- <sup>13</sup> C <sub>6</sub> ,99%)	163	3-MeSO <sub>2</sub> -2,2',3',4',5,6-HexaCB (unlabeled)	114
4-Hydroxybenzoic acid (unlabeled)	163, 179	3-MeSO <sub>2</sub> -2,2',4',5,5',6-HexaCB (unlabeled)	114
6-Hydroxychrysene (mix of ring labeling) ( <sup>13</sup> C <sub>6</sub> ,99%)	140	3-MeSO <sub>2</sub> -4-Me-2',3',4',5,5'-Penta-CB (unlabeled) (Internal Standard)	114
3-Hydroxydibenz[a,h]anthracene ( <sup>13</sup> C <sub>6</sub> ,99%)	140	3-MeSO <sub>2</sub> -2,2',4',5,5'-PentaCB (unlabeled)	114
2-Hydroxyestradiol (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	164	4-MeSO <sub>2</sub> -2,2',4',5,5'-PentaCB (unlabeled)	114
2-Hydroxyestradiol (unlabeled)	164	4-MeSO <sub>2</sub> -2,2',4',5,6-PentaCB (unlabeled)	114
2-Hydroxyestrone-3-methyl ether (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	164	4-MeSO <sub>2</sub> -2,3,3',4',6-PentaCB (unlabeled)	114
2-Hydroxyestrone-3-methyl ether (unlabeled)	165	3-MeSO <sub>2</sub> -2,2',4',5-TetraCB (unlabeled)	114
2-Hydroxyestrone (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	164	4-MeSO <sub>2</sub> -2,2',4',5-TetraCB (unlabeled)	114
4-Hydroxyestrone (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	165	3-MeSO <sub>2</sub> -DDE (unlabeled)	114
2-Hydroxyestrone (unlabeled)	164	Methamidophos (dimethyl-D <sub>6</sub> ,98%)	199, 205
4-Hydroxyestrone (unlabeled)	165	Methanol (D <sub>4</sub> ,99.8%)	188
6-Hydroxy-2,2',4,4',5-PentaBDE (unlabeled)	123	Method 23 Alternate Recovery Stock Solution	23
2-Hydroxy-2',4,4',5',6-PentaBDE (ring- <sup>13</sup> C <sub>12</sub> ,99%)	123	Method 23 Calibration Solutions	22
3-Hydroxyphenanthrene (ring- <sup>13</sup> C <sub>6</sub> ,99%)	140	Method 23 Daily Calibration Check Standard	22
2-Hydroxyphenanthrene (unlabeled)	143	Method 23 Internal Standard Stock Solution	23
6-Hydroxy-2,2',4,4'-TetraBDE (ring- <sup>13</sup> C <sub>12</sub> ,99%)	123	Method 23 Recovery Standard Stock Solution	23
6-Hydroxy-2,2',4,4'-TetraBDE (unlabeled)	123	Method 23 Surrogate Standard Stock Solution	23
4'-Hydroxy-2,2',4,5'-TetraBDE (unlabeled)	123	Method 1613 Calibration Check Standard	19
6'-Hydroxy-2,2',4,5'-TetraBDE (unlabeled)	123	Method 1613 Calibration Solutions	19, 21
Ibuprofen (propionic- <sup>13</sup> C <sub>3</sub> ,99%)	166	Method 1613 Cleanup Standard	20, 21
Ibuprofen (unlabeled)	166	Method 1613 Daily Calibration Check Standard	19
Imidacloprid (4,4,5,5-D <sub>4</sub> ,98%)	205	Method 1613 Daily Calibration Plus Window Definer and Isomer Specificity Solution	20
Imidacloprid (unlabeled)	205	Method 1613 Internal Standard Spiking Solution	20
Imipramine-HCl (2,4,6,8-D <sub>4</sub> ,98%)	166	Method 1613 Labeled Compound Stock Solution	21
Imipramine (unlabeled)	166	Method 1613 Internal Standard Spiking Solution	21
Indeno[1,2,3-cd]pyrene ( <sup>13</sup> C <sub>6</sub> ,99%)	140, 144, 177	Method 1613 Precision and Recovery Standard Solution	21
Indeno[1,2,3-cd]pyrene (D <sub>12</sub> ,98%)	141, 144, 145, 177	Method 1613 "Starter Kit"	21
Indeno[1,2,3-cd]pyrene (unlabeled)	143, 145	Method 1653A Labeled Chlorophenolic Derivatives Mixture	152
Instrument Performance Standard	153	Method 1653A Other Chlorophenolics Mixture-1	152
Internal Standard for Dioxin, Furan and PCB in Tissue	37		

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
Method 1653A Other Chlorophenolics Mixture-2	153	Modified JIS PCB Alternate B Syringe Spike	84
Method 1653A Regulated Chlorophenolics Mixture-1	152	Modified JIS PCB Calibration Solutions	80
Method 1653A Regulated Chlorophenolics Mixture-2	152	Modified JIS PCB Cleanup Spike	81
Method 1653 Unlabeled Chloroguaiacol Cocktail	153	Modified JIS PCB Extended Calibration Solutions	80
Method 1668A/B Calibration Solutions	72	Modified JIS PCB Sampling Spike	81
Method 1668A/B Calibration Verification Solution	72	Modified JIS PCB Syringe Spike	81
Method 1668A/B High Sensitivity Calibration Solution	72	Modified Method 8280 Calibration Solutions	28
Method 1668A/B Labeled Cleanup Standard Solution	74	Modified Method 8280 Matrix Spiking Solution	28
Method 1668A/B Labeled Injection Internal Standard Solution	74	Modified TCDD Column Performance Check Solution	57
Method 1668A/B Labeled Toxic/LOC/Window Defining Solution	74	2-MonoBDE (BDE-1) (unlabeled) (Monobromodiphenyl ether)	119, 130, 132, 133
Method 1668A/B Native Toxic/LOC Solution	75	3-MonoBDE (BDE-2) (unlabeled)	119, 130, 132, 133
Method 8280 Calibration and Verification Solution	26	4-MonoBDE (BDE-3) ( <sup>13</sup> C <sub>12</sub> ,99%)	117, 126, 127, 130, 131, 133, 183
Method 8280 Calibration Solutions	26	4-MonoBDE (unlabeled)	119, 126, 127, 130, 131, 132, 133, 183
Method 8280 Cleanup Standard Solution	27	Monobenzyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	170
Method 8280 Internal Standard Solution	27	Monobenzyl phthalate (unlabeled)	170
Method 8280 Matrix Spiking Solution	27	Mono-[(2-carboxymethyl) hexyl] phthalate (DEHP Metabolite IV) ( <sup>13</sup> C <sub>4</sub> ,99%)	170
Method 8280 Recovery Standard Solution	27	Mono-[(2-carboxymethyl) hexyl] phthalate (DEHP Metabolite IV) (unlabeled)	170
Method 8290 Calibration Solutions	24	Mono-(3-carboxypropyl) phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
Method 8290 Continuing Calibration Check Standard	24	Mono-(3-carboxypropyl) phthalate (unlabeled)	171
Method 8290 Matrix Spiking Solution	25	Mono-(5-carboxy-2-ethylpentyl) phthalate (DEHP Metabolite V) ( <sup>13</sup> C <sub>4</sub> ,99%)	170
Method 8290 Recovery Standard Solution	25	Mono-(5-carboxy-2-ethylpentyl) phthalate (DEHP Metabolite V) (unlabeled)	170
Method 8290 Sample Fortification Solution	25	2-MonoCB (PCB-1) (Monochlorobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%)	67, 74
Methomyl (acetohydroxamate- <sup>13</sup> C <sub>2</sub> ,99%; <sup>15</sup> N,98%)	200, 206	2-MonoCB (unlabeled)	70, 72, 73, 75, 106, 107, 111
Methomyl (unlabeled)	200, 206	4-MonoCB (PCB-3) ( <sup>13</sup> C <sub>12</sub> ,99%)	67, 74, 96, 97
4-Methoxy-2,2',3,4',5,5',6-HeptaCB (unlabeled)	114	4-MonoCB (PCB-3) (unlabeled)	70, 72, 73, 75, 96, 97, 106, 107, 111
4-Methoxy-2,2',3,4',5,5'-HexaCB (unlabeled)	114	4-MonoCDE (Monochlorodiphenyl ether)	179
4-Methoxy-2,3,3',4',5-PentaCB (unlabeled)	114	1-Monochloronaphthalene (unlabeled)	146
6-Methoxy-2,2',4,4'-TetraBDE (unlabeled)	123	2-Monochloronaphthalene (unlabeled)	146
2'-Methoxy-2,3',4,5'-TetraBDE (unlabeled)	123	Monocyclohexyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
Methoxychlor (ring- <sup>13</sup> C <sub>12</sub> ,99%)	177, 197, 206, 219	Monocyclohexyl phthalate (unlabeled)	171
Methoxychlor (unlabeled)	177, 197, 206, 218, 219	Mono-Deca PCB Mixture	97
2-Methoxyestradiol (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	165	Mono-Deca plus Predominant PCB Calibration Solutions	96
2-Methoxyestradiol (unlabeled)	165	Mono-Deca plus Predominant PCB Syringe Spike	97
2-Methoxyestrone (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	165	Mono-2-ethylhexyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
2-Methoxyestrone (unlabeled)	165	Mono-2-ethylhexyl phthalate (unlabeled)	171
4-Methoxyestrone (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> ,99%)	165	Mono-(2-ethyl-5-hydroxyhexyl) phthalate (DEHP Metabolite IX)	171
4-Methoxyestrone (unlabeled)	165	(ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
5-Methylchrysene (methyl-D <sub>3</sub> ,98%)	141	Mono-(2-ethyl-5-hydroxyhexyl) phthalate (DEHP Metabolite IX) (unlabeled)	171
5-Methylchrysene (unlabeled)	143	Mono-(2-ethyl-5-oxohexyl) phthalate (DEHP Metabolite VI) ( <sup>13</sup> C <sub>4</sub> ,99%)	171
Methylene chloride ( <sup>13</sup> C,99%)	188	Mono-(2-ethyl-5-oxohexyl) phthalate (DEHP Metabolite VI) (unlabeled)	171
Methylene chloride (D <sub>2</sub> ,99.9%)	158, 188	Monoethyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
2-Methylisoborneol (2-methyl-D <sub>3</sub> ,98%)	169	Monoethyl phthalate (unlabeled)	171
1-Methylnaphthalene (D <sub>10</sub> ,98%)	141	<sup>13</sup> C-Labeled Mono-Hexa Chlorobenzene Solution	151
2-Methylnaphthalene ( <sup>13</sup> C <sub>6</sub> ,99%)	140	Monoisobutyl phthalate (unlabeled)	171
2-Methylnaphthalene (D <sub>10</sub> ,98%)	141, 144	Monoisodecyl phthalate (Mono-3,7-dimethyloctyl phthalate) (unlabeled)	171
2-Methylnaphthalene (unlabeled)	143, 144	Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
Methyl paraben (Methyl 4-hydroxybenzoate) (ring- <sup>13</sup> C <sub>6</sub> ,99%)	163	Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (unlabeled)	171
Methyl paraben (Methyl 4-hydroxybenzoate) (unlabeled)	163	Monoisopropyl phthalate (unlabeled)	171
4-Methylphenol (p-Cresol) (D <sub>8</sub> ,98%)	154	Monomethyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
2-(4-Methylphenyl) propane (D <sub>14</sub> ,98%)	159, 188	Monomethyl phthalate (unlabeled)	171
Methylphosphonic acid ( <sup>13</sup> C,99%;methyl-D <sub>3</sub> ,98%)	199, 221	Monoisobutyl phthalate (unlabeled)	171
Methylphosphonic acid (methyl-D <sub>3</sub> , 98%)	199, 206	Monoisodecyl phthalate (Mono-3,7-dimethyloctyl phthalate) (unlabeled)	171
Methylphosphonic acid (methyl-D <sub>3</sub> ,98%)	221	Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
Methylphosphonic acid (unlabeled)	199, 206, 221	Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (unlabeled)	171
2-Methylpyridine (D <sub>3</sub> ,98%)	157	Monoisopropyl phthalate (unlabeled)	171
Methyl Triclosan (2,4,4-Trichloro-2-methoxydiphenyl ether) (ring- <sup>13</sup> C <sub>12</sub> ,99%)	163	Monomethyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
Methyl Triclosan (2,4,4-Trichloro-2-methoxydiphenyl ether) (unlabeled)	163	Monomethyl phthalate (unlabeled)	171
4-Methylumbelliferone (2,3,4,methyl- <sup>13</sup> C <sub>4</sub> ,99%)	174	Mono- <i>n</i> -butyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	170
4-Methylumbelliferone (unlabeled)	174	Mono- <i>n</i> -butyl phthalate (unlabeled)	170
Metolachlor (ring- <sup>13</sup> C <sub>6</sub> ,99%)	177, 206	Mono- <i>n</i> -octyl phthalate (ring-1,2- <sup>13</sup> C <sub>2</sub> , dicarboxyl- <sup>13</sup> C <sub>2</sub> ,99%)	171
Metolachlor (unlabeled)	177, 206	Mono- <i>n</i> -octyl phthalate (unlabeled)	171
Mirex ( <sup>13</sup> C <sub>8</sub> ,99%)	197, 206	Mono- <i>n</i> -pentyl phthalate (unlabeled)	171
Mirex ( <sup>13</sup> C <sub>10</sub> ,99%)	177, 195, 197, 206, 209, 212, 213, 214, 215, 216, 217, 219	Mono-Ortho Native PCB Solution	110
Mirex (unlabeled)	177, 195, 197, 206, 208, 210, 212, 213, 214, 216, 218	Mono-Ortho PCB Mixture - *High Purity	103
Modified JIS PCB Alternate A Extended Calibration Solutions	82	Mono-TriCDD/CDF <sup>13</sup> C-Labeled Solution	50
Modified JIS PCB Alternate B Calibration Solutions	83		
Modified JIS PCB Alternate B Cleanup Solution	84		

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
Mono-TricDD/CDF Native Solution	50	<i>cis</i> -Nonachlor (unlabeled)	177, 195, 197, 206, 208, 210, 212, 213, 214, 215, 218, 219
Multi-Analyte Recovery Spiking Standard	38, 216	<i>trans</i> -Nonachlor ( <sup>13</sup> C <sub>10</sub> ,99%)	177, 195, 197, 206, 208, 209, 212, 213, 214, 215, 216, 217, 219
Naphthalene ( <sup>13</sup> C <sub>6</sub> ,99%)	140, 144, 188	<i>trans</i> -Nonachlor (unlabeled)	177, 195, 197, 206, 208, 210, 212, 213, 214, 215, 216, 217, 219
Naphthalene (D <sub>8</sub> ,99%)	141, 144, 157, 188	<i>n</i> -Nonadecane (D <sub>40</sub> ,98%)	181
Naphthalene (D <sub>8</sub> ,99.5%)	141, 188	<i>n</i> -Nonane (D <sub>20</sub> ,98%)	181
Naphthalene (unlabeled)	143, 145, 188	<i>n</i> -Nonane (unlabeled)	189
Naproxen (methyl- <sup>13</sup> C,99% methyl-D <sub>3</sub> ,98%)	167	Non-Ortho Native PCB Solution	109
Naproxen (unlabeled)	167	<i>p-n</i> -Nonylphenol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172, 178
Native Mono-Hexa Chlorobenzene Solution	151	<i>p-n</i> -Nonylphenol (unlabeled)	172, 178
Native Predominant Mono-Deca PCBs (unlabeled)	97	<i>p</i> -Nonylphenol-Technical Grade (unlabeled)	172
Natural Matrix Reference Material (Soil)	34	Nonylphenol diethoxylate – branched isomers (unlabeled)	172
5-Nitroacenaphthene (D <sub>5</sub> ,98%)	141	<i>p-n</i> -Nonylphenol diethoxylate (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172
9-Nitroanthracene (D <sub>5</sub> ,98%)	141	<i>p-n</i> -Nonylphenol diethoxylate (unlabeled)	172
Nitrobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	188	<i>p-n</i> -Nonylphenol + Mono-/Di-/Tri-ethoxylates	172
Nitrobenzene (D <sub>5</sub> ,99%)	154, 157, 188	<i>p-n</i> -Nonylphenol monoethoxylate (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172, 178
Nitrobenzene (unlabeled)	180, 188	Nonylphenol monoethoxylate – branched isomers (unlabeled)	172
6-Nitrochrysene (D <sub>11</sub> ,98%)	142	<i>p-n</i> -Nonylphenol monoethoxylate (unlabeled)	172, 178
<i>N</i> -Nitrodimethylamine (dimethyl-D <sub>6</sub> ,98%)	174, 188	<i>p-n</i> -Nonylphenol triethoxylate (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172
<i>N</i> -Nitrodimethylamine (unlabeled)	174, 188	Nonylphenoxyacetic acid – ring/chain isomers (unlabeled)	172
3-Nitrofluoranthene (D <sub>3</sub> ,98%)	142	<i>p-n</i> -Nonylphenoxyethoxyacetic acid (unlabeled)	172
2-Nitrofluorene (D <sub>5</sub> ,98%)	142	Norflouxetine oxalate (D <sub>6</sub> ,98%)	167
2-Nitrofluorene	142, 143	Norflouxetine oxalate (unlabeled)	167
Nitroglycerin (Trinitroglycerol) (unlabeled)	180	19-Nortestosterone (16,16,17-D <sub>3</sub> ,98%)	165
4-Nitrophenol (2,3,5,6-D <sub>4</sub> ,98%)	156	OBDD (Octabromodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59, 60, 61
2-Nitrophenol (3,4,5,6-D <sub>4</sub> ,98%)	156	OBDD (unlabeled)	12, 58, 59, 60, 61, 64
2-Nitrophenol (ring-D <sub>4</sub> ,98%)	154, 188	OBDF (Octabromodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 58, 59, 60, 61
4-Nitrophenol (ring-D <sub>4</sub> ,98%)	154, 188	OBDF (unlabeled)	14, 58, 59, 60, 61
1-Nitropyrene (D <sub>3</sub> ,98%)	142	OCDD (Octachlorodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
1-Nitropyrene (unlabeled)	143	OCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
Nitrosoanabasine (NAB) (unlabeled)	174	OCDF (Octachlorodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	7, 27, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54, 55
Nitrosoanatabine (NAT) (unlabeled)	174	OCDF (unlabeled)	9, 10, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 51, 52, 53, 54, 55
<i>N</i> -Nitrosodiethylamine (D <sub>10</sub> ,98%)	174, 188	2,2',3,3',4,4',6,6'-OctaBDE (Octabromodiphenyl ether) (BDE-197) ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 128, 129, 134, 135
<i>N</i> -Nitrosodiethylamine (unlabeled)	174, 188	2,2',3,3',4,4',6,6'-OctaBDE (unlabeled)	121, 128, 129, 134, 135
<i>N</i> -Nitrosodimethylamine ( <sup>13</sup> C <sub>2</sub> ,99%;D <sub>6</sub> ,98%)	169, 174, 188	2,2',3,4,4',5,5',6-OctaBDE (BDE-203) ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 134, 135
<i>N</i> -Nitrosodimethylamine ( <sup>15</sup> N <sub>2</sub> ,98%)	174, 188	2,2',3,4,4',5,5',6-OctaBDE (unlabeled)	121, 126, 127, 134
<i>N</i> -Nitrosodimethylamine (2,2',4,4',6,6'-D <sub>6</sub> ,98%)	174, 188	2,2',3,4,4',5,6,6'-OctaBDE (BDE-204) ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 126, 127
<i>N</i> -Nitrosodimethylamine (dimethyl-D <sub>6</sub> ,98%)	157	2,2',3,4,4',5,6,6'-OctaBDE (unlabeled)	122
<i>N</i> -Nitrosodi- <i>n</i> -propylamine (dipropyl-D <sub>14</sub> ,98%)	157, 174, 189	2,3,3',4,4',5,5',6-OctaBDE (BDE-205) ( <sup>13</sup> C <sub>12</sub> ,99%)	118
<i>N</i> -Nitrosodi- <i>n</i> -propylamine (unlabeled)	174, 189	2,3,3',4,4',5,5',6-OctaBDE (unlabeled)	122
<i>N</i> -Nitrosodiphenylamine (2,2',4,4',6,6'-D <sub>6</sub> ,98%)	157, 174, 188	OctaBDE Technical Mix (DE-79)	123
<i>N</i> -Nitrosodiphenylamine (unlabeled)	174, 188	2,2',3,3',4,4',5,5'-OctaCB (Octachlorobiphenyl) (PCB-194) ( <sup>13</sup> C <sub>12</sub> ,99%)	69, 73, 74, 96, 97, 98, 101
<i>N</i> -Nitrosomorpholine (D <sub>8</sub> ,98%)	174, 189	2,2',3,3',4,4',5,5'-OctaCB (unlabeled)	71, 73, 74, 96, 97, 98, 99, 100, 101, 105, 106, 107, 108, 111
<i>N</i> -Nitrosomorpholine (unlabeled)	174, 189	2,2',3,3',4,4',5,6-OctaCB (PCB-195) (unlabeled)	71, 99, 100, 105, 106, 107, 108
<i>N</i> -Nitrosopyrrolidine (D <sub>8</sub> ,98%)	174, 189	2,2',3,3',4,4',5',6-OctaCB (PCB-196) (unlabeled)	71, 99, 100, 108
<i>N</i> -Nitrosopyrrolidine (unlabeled)	174, 189	2,2',3,3',4,5,5',6-OctaCB (PCB-198) (unlabeled)	71, 99, 100, 105, 108
2-Nitrotoluene (ring- <sup>13</sup> C <sub>6</sub> ,99%)	180	2,2',3,3',4,5,6,6'-OctaCB (PCB-199) (unlabeled)	71, 106
2-Nitrotoluene (unlabeled)	180	2,2',3,3',5,5',6,6'-OctaCB (PCB-202) ( <sup>13</sup> C <sub>12</sub> ,99%)	69, 73, 74
4-Nitrotoluene (ring- <sup>13</sup> C <sub>6</sub> ,99%)	177, 180	2,2',3,3',5,5',6,6'-OctaCB (unlabeled)	71, 72, 73, 74, 75, 106, 107, 111
4-Nitrotoluene (unlabeled)	177, 180	2,2',3,4,4',5,5',6-OctaCB (PCB-203) (unlabeled)	71, 99, 100, 106, 108
NNK (Nicotine-derived Nitrosamine Ketone) (1,2',3',4',5',6'- <sup>13</sup> C <sub>6</sub> ,99%)	174		
NNN ( <i>N</i> -Nitrosornicotine) (2,2',3,4,5,6- <sup>13</sup> C <sub>6</sub> ,99%)	174		
NNN ( <i>N</i> -NitrosoNorNicotine) (2,2',3,4,5,6- <sup>13</sup> C <sub>6</sub> ,99%)	174		
Non-2,3,7,8-Containing <sup>13</sup> C Furan Syringe Spike	45		
Non-2,3,7,8-Containing PCDF Calibration Solutions	44		
Non-2,3,7,8-Containing PCDF Cleanup Standard	45		
Non-2,3,7,8-Containing PCDF Sampling Standard	45		
Non-2,3,7,8-Containing PCDF Syringe Standard	45		
2,2',3,3',4,4',5,5',6-NonaBDE (Nonabromodiphenyl ether) (BDE-206) ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 128, 129, 134, 135		
2,2',3,3',4,4',5,5',6-NonaBDE (unlabeled)	122, 126, 127, 128, 129, 134, 135		
2,2',3,3',4,4',5,6,6'-NonaBDE (BDE-207) ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 126, 127, 128, 129, 134, 135		
2,2',3,3',4,4',5,6,6'-NonaBDE (unlabeled)	122, 126, 127, 128, 129, 134, 135		
2,2',3,3',4,5,5',6,6'-NonaBDE (BDE-208) ( <sup>13</sup> C <sub>12</sub> ,99%)	118, 128, 129, 134, 135		
2,2',3,3',4,5,5',6,6'-NonaBDE (unlabeled)	122, 128, 129, 134, 135		
2,2',3,3',4,4',5,5',6-NonaCB (PCB-206) (Nonachlorobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%)	69, 73, 74, 96, 98, 100, 101		
2,2',3,3',4,4',5,5',6-NonaCB (unlabeled)	71, 72, 74, 75, 96, 97, 99, 101, 105, 106, 107, 108, 111		
2,2',3,3',4,5,5',6,6'-NonaCB (PCB-208) ( <sup>13</sup> C <sub>12</sub> ,99%)	38, 69, 73, 74, 97, 134, 135, 216, 219		
2,2',3,3',4,5,5',6,6'-NonaCB (unlabeled)	71, 72, 74, 75, 97, 105, 106, 107, 111		
<i>cis</i> -Nonachlor ( <sup>13</sup> C <sub>10</sub> ,99%)	177, 195, 197, 206, 208, 209, 212, 213, 214, 215, 219		

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
2,3,3',4,4',5,5',6-OctaCB (PCB-205) ( <sup>13</sup> C <sub>12</sub> ,99%)	69, 73, 74	2,2',4,4',5-PentaBDE ( <sup>13</sup> C <sub>12</sub> ,99%) (BDE-99)	117, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135
2,3,3',4,4',5,5',6-OctaCB (unlabeled)	71, 72, 73, 74, 75, 105, 106, 107	2,2',4,4',5-PentaBDE (unlabeled)	120, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134
Octachloronaphthalene (OctaCN) ( <sup>13</sup> C <sub>10</sub> ,99%)	146, 147	2,2',4,4',6-PentaBDE ( <sup>13</sup> C <sub>12</sub> ,99%) (BDE-100)	117, 124, 125, 130, 131, 133, 134, 135
Octachloronaphthalene	146, 147	2,2',4,4',6-PentaBDE (unlabeled)	120, 124, 125, 126, 127, 130, 131, 132, 133, 135
Octachlorostyrene ( <sup>13</sup> C <sub>8</sub> ,99%)	189, 219		
Octachlorostyrene (unlabeled)	189, 218		
n-Octane (D <sub>18</sub> ,99%)	181		
4-OH-2,3,3',4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	114		
4'-OH-2,2',3,3',4,5,5'-HeptaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	114		
3'-OH-2,2',3,4,4',5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	114		
4-OH-2,2',3,4',5,5'-HexaCB ( <sup>13</sup> C <sub>12</sub> ,99%)	114		
4'-OH-3,3',4,5'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)	114		
O,O-Diethyl dithiophosphate, potassium salt (unlabeled)	198, 204		
O,O-Dimethyl thiophosphate (unlabeled)	198		
Oxybenzone (phenyl- <sup>13</sup> C <sub>6</sub> ,99%)	163		
Oxybenzone (unlabeled)	163		
Oxychlorane ( <sup>13</sup> C <sub>10</sub> ,99%)	178, 195, 197, 206, 208, 209, 212, 213, 214, 215, 216, 217, 219		
Oxychlorane (unlabeled)	178, 195, 197, 206, 208, 210, 212, 213, 214, 216, 218		
Oxydemeton methyl (O,O-dimethyl-D <sub>6</sub> ,98%)	199, 206		
Oxydemeton methyl (unlabeled)	199, 206		
Oxypyrimidine (Diazinon Metabolite) (methyl,4,5,6- <sup>13</sup> C <sub>4</sub> ,99%)	206		
Oxypyrimidine (unlabeled)	206		
PAH Native Standard Mixture	145		
PAH-SIM Recovery Standard Mixture	144		
PAH Surrogate Standard Mixture	145		
Parathion (diethyl-D <sub>10</sub> ,98%)	178, 199, 206		
Parathion (unlabeled)	178, 199, 206		
Parlar 26 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201, 211, 219		
Parlar 26 (unlabeled)	178, 189, 201, 211, 218		
Parlar 32 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201		
Parlar 32 (unlabeled)	178, 189, 201		
Parlar 39 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201		
Parlar 39 (unlabeled)	178, 189, 201		
Parlar 50 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201, 211, 219		
Parlar 50 (unlabeled)	178, 189, 201, 211, 218		
Parlar 62 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201, 211, 219		
Parlar 62 (unlabeled)	178, 189, 201, 211, 218		
Parlar 69 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201		
Parlar 69 (unlabeled)	178, 189, 201		
Parlar 70 (U- <sup>13</sup> C <sub>10</sub> ,99%)	178, 189, 201		
Parlar 70 (unlabeled)	178, 189, 201		
PBDD/F Calibration Solutions	60		
PBDD/F Cleanup Spike	61		
PBDD/F Sampling Stock	61		
PBDD/F Syringe Spike Stock	61		
PBDD/PBDF Performance Standard Mixture	63		
PBDD/PBDF Surrogate Spiking Solution	63		
PCB-77 (3,3',4,4'-TetraCB) ( <sup>13</sup> C <sub>12</sub> ,99%)	178		
PCB-126 (3,3',4,4',5-PentaCB) ( <sup>13</sup> C <sub>12</sub> ,99%)	178		
PCB-169 (3,3',4,4',5,5'-HexaCB) ( <sup>13</sup> C <sub>12</sub> ,99%)	178		
PCB Mixture	94, 103, 104		
PCB Sampling Spike	81, 91, 104		
PCB Syringe Spike	91, 104		
PCB Window Defining Mixture	111		
PCDD/PCDF Window Defining and Isomer Specificity Mix	56		
1,2,3,7,8-PeBDD (Pentabromodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59, 60, 61, 62, 63		
1,2,3,7,8-PeBDD (unlabeled)	12, 58, 59, 60, 61, 62, 63, 64		
1,2,3,7,8-PeBDF (Pentabromodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 58, 59, 60, 61, 62, 63		
1,2,3,7,8-PeBDF (unlabeled)	14, 58, 59, 60, 61, 62, 63, 64		
2,3,4,7,8-PeBDF ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 58, 59, 60, 61, 62, 63		
2,3,4,7,8-PeBDF (unlabeled)	14, 58, 59, 60, 61, 62, 63, 64		
3,3',4,4',5-PentaBB (Pentabromobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%) (PBB-126)	122		
2,2',3,4,4'-PentaBDE (Pentabromodiphenyl ether) (BDE-85)	120, 126, 127, 130, 131, 132, 133, 134		
		117, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135	
		120, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134	
		117, 124, 125, 130, 131, 133, 134, 135	
		120, 124, 125, 126, 127, 130, 131, 132, 133, 135	
		120, 130, 132, 133	
		117, 130, 131, 133	
		120, 130, 131, 132, 133	
		121, 126, 127, 130, 132, 133	
		123	
		123	
		175	
		175	
		11	
		3	
		11	
		11	
		11	
		11	
		3, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 47, 49, 51, 52, 53, 54	
		5, 11, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 40, 41, 42, 43, 44, 47, 48, 55	
		11	
		5, 11, 20, 56	
		11	
		11	
		11	
		11	
		11	
		11	
		11	
		11	
		1,2,4,6,8/1,2,4,7,9-PeCDD isomer pair (unlabeled)	5, 20, 56
		1,2,3,4,6-PeCDF (Pentachlorodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 40, 41, 42, 44, 45, 46, 47, 49
		1,2,3,4,6-PeCDF (unlabeled)	10
		1,2,3,4,7-PeCDF (unlabeled)	10
		1,2,3,4,8-PeCDF (unlabeled)	10
		1,2,3,4,9-PeCDF (unlabeled)	10
		1,2,3,6,7-PeCDF (unlabeled)	10
		1,2,3,6,8-PeCDF (unlabeled)	10
		1,2,3,6,9-PeCDF (unlabeled)	10
		1,2,3,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54
		1,2,3,7,8-PeCDF (unlabeled)	8, 10, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55
		1,2,3,7,9-PeCDF (unlabeled)	10
		1,2,3,8,9-PeCDF (unlabeled)	8, 10, 20, 56
		1,2,4,6,7-PeCDF (unlabeled)	10
		1,2,4,6,8-PeCDF (unlabeled)	10
		1,2,4,6,9-PeCDF (unlabeled)	10
		1,2,4,7,8-PeCDF (unlabeled)	10
		1,2,4,7,9-PeCDF (unlabeled)	10
		1,2,4,8,9-PeCDF (unlabeled)	10
		1,2,6,7,8-PeCDF (unlabeled)	10
		1,2,6,7,9-PeCDF (unlabeled)	10
		1,3,4,6,7-PeCDF (unlabeled)	10
		1,3,4,6,8-PeCDF (unlabeled)	8, 10, 20, 56
		1,3,4,6,9-PeCDF (unlabeled)	10
		1,3,4,7,8-PeCDF (unlabeled)	10
		1,3,4,7,9-PeCDF (unlabeled)	10



Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
1,3,6,7,8-PeCDF (unlabeled)	10	3,3',4,5,5'-PentaCB (unlabeled)	70
1,4,6,7,8-PeCDF (unlabeled)	10	Pentachloroanisole ( <sup>13</sup> C <sub>6</sub> ,99%)	175, 219
2,3,4,6,7-PeCDF (unlabeled)	10	Pentachloroanisole (unlabeled)	175, 218
2,3,4,6,8-PeCDF (unlabeled)	10	Pentachlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 175, 178, 189, 208, 209
2,3,4,7,8-PeCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54	Pentachlorobenzene (unlabeled)	151, 175, 178, 189, 194, 208, 210
2,3,4,7,8-PeCDF (unlabeled)	8, 10, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55	1,2,3,4,6-Pentachloronaphthalene (unlabeled)	146
2,2',3,4,4'-PentaCB (Pentachlorobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-85)	68	1,2,3,5,7-Pentachloronaphthalene ( <sup>13</sup> C <sub>10</sub> ,99%)	146, 147
2,2',3,4,4'-PentaCB (unlabeled)	70	1,2,3,5,7-Pentachloronaphthalene (unlabeled)	146, 147
2,2',3,4,5'-PentaCB (unlabeled) (PCB-87)	70, 99, 100, 105, 106, 108	1,2,3,5,8-Pentachloronaphthalene (unlabeled)	146
2,2',3,5',6-PentaCB (unlabeled) (PCB-95)	70, 105, 106	1,2,3,6,7-Pentachloronaphthalene (unlabeled)	146
2,2',3',4,5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-97)	68	Pentachloronitrobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	175, 178, 189
2,2',3',4,5-PentaCB (unlabeled)	70	Pentachloronitrobenzene (unlabeled)	175, 178
2,2',4,4',5-PentaCB (unlabeled) (PCB-99)	70, 99, 100, 105, 106, 107, 108	Pentachlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 152, 156, 175, 178, 189
2,2',4,5,5'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-101)	68, 73, 74, 78, 94, 95, 96, 98, 101, 103	Pentachlorophenol (unlabeled)	152, 175, 178, 189
2,2',4,5,5'-PentaCB (unlabeled)	70, 95, 96, 97, 99, 100, 105, 106, 108, 110	<i>n</i> -Pentadecane (D <sub>32</sub> ,98%)	181
2,2',4,6,6'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-104)	68, 73, 74	<i>n</i> -Pentane (D <sub>12</sub> ,98%)	181
2,2',4,6,6'-PentaCB (unlabeled)	70, 72, 73, 74, 75, 106, 107, 111	Perchloric acid, sodium salt ( <sup>18</sup> O <sub>4</sub> ,90%+)	169, 189
2,3,3',4,4'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-105)	39, 40, 49, 68, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 98, 101, 102	Perchloric acid, sodium salt (unlabeled)	169, 189
2,3,3',4,4'-PentaCB (unlabeled)	48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 92, 99, 100, 105, 106, 108, 109, 110	Perfluorodecanoic Acid (PFDA) ( <sup>13</sup> C <sub>9</sub> ,99%)	173
2,3,3',4',6-PentaCB (unlabeled) (PCB-110)	70, 95, 99, 100, 105, 106, 108	Perfluorodecanoic Acid (PFDA) (unlabeled)	173
2,3,3',5,5'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-111)	49, 68, 73, 74, 76, 77, 78, 80, 81, 82, 83, 84, 86, 87, 88, 89, 91, 92, 93, 98, 104	Perfluorohexanoic Acid (PFHxA), sodium salt ( <sup>13</sup> C <sub>6</sub> ,99%)	173
2,3,3',5,5'-PentaCB (unlabeled)	70, 106	Perfluorohexanoic Acid (PFHxA), sodium salt (unlabeled)	173
2,3,3',5,6-PentaCB (unlabeled) (PCB-112)	70	Perfluorononanoic Acid (PFNA) ( <sup>13</sup> C <sub>9</sub> ,99%)	173
2,3,4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-114)	39, 40, 49, 68, 73, 74, 76, 77, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 96, 101, 102, 103	Perfluorononanoic Acid (PFNA) (unlabeled)	173
2,3,4,4',5-PentaCB (unlabeled)	48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 92, 96, 97, 100, 106, 107, 109, 110	Perfluorooctanoic Acid (PFOA) ( <sup>13</sup> C <sub>8</sub> ,99%)	173
2,3',4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-118)	39, 40, 49, 68, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 95, 96, 97, 98, 101, 102, 103	Perfluorooctanoic Acid (PFOA) (unlabeled)	173
2,3',4,4',5-PentaCB (unlabeled)	48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 91, 92, 95, 96, 99, 100, 105, 106, 107, 108, 109, 100	Perfluoroundecanoic Acid (PFUA) ( <sup>13</sup> C <sub>9</sub> ,99%)	173
2',3,4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-123)	39, 40, 49, 68, 73, 74, 76, 77, 80, 81, 82, 87, 88, 89, 90, 92, 93, 101, 102, 103	Perfluoroundecanoic Acid (PFUA), sodium salt (unlabeled)	173
2',3,4,4',5-PentaCB (unlabeled)	48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 92, 100, 106, 107, 109, 110	<i>cis</i> -Permethrin (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	178, 200, 206
3,3',4,4',5-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-126)	36, 37, 39, 40, 49, 68, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 102, 103, 108	<i>cis</i> -Permethrin (unlabeled)	178, 200, 206
3,3',4,4',5-PentaCB (unlabeled)	36, 48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 92, 106, 107, 109, 111	<i>trans</i> -Permethrin (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%)	178, 200, 206
3,3',4,5,5'-PentaCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-127)	68, 76, 77, 78, 92, 93, 96, 97	<i>trans</i> -Permethrin (unlabeled)	178, 200, 206
		Persistent Organic Pollutants Cleanup Spike	217
		Persistent Pesticide Calibration Solutions	216
		Persistent Pesticide Reconstituting Solution	216
		Persistent Pesticide Spiking Solution	217
		Perylene (D <sub>12</sub> ,98%)	142, 145
		Perylene (unlabeled)	143
		Phenanthrene ( <sup>13</sup> C <sub>6</sub> ,99%)	140, 144, 178, 189
		Phenanthrene (D <sub>10</sub> ,98%)	142, 144, 145, 156, 178, 189
		Phenanthrene (unlabeled)	143, 145, 178, 189
		Phenol ( <sup>13</sup> C <sub>6</sub> ,99%)	189
		Phenol (2,3,4,5,6-D <sub>5</sub> ,98%)	154, 156, 189
		Phenol (D <sub>6</sub> ,98%)	189
		3-Phenoxybenzoic acid (phenoxy- <sup>13</sup> C <sub>6</sub> ,99%) (Permethrin metabolite)	200, 206
		3-Phenoxybenzoic acid (unlabeled)	200, 206
		Phenylbutazone (unlabeled)	167, 189
		Phenylbutazone (diphenyl-D <sub>10</sub> ,98%)	167, 189
		<i>o</i> -Phenylphenol (phenyl- <sup>13</sup> C <sub>6</sub> ,99%)	169, 189, 206
		<i>o</i> -Phenylphenol (unlabeled)	169, 189, 206
		<i>p</i> -Phenylphenol (phenyl- <sup>13</sup> C <sub>6</sub> ,99%)	169, 189, 206
		Phorate (diethoxy- <sup>13</sup> C <sub>4</sub> ,99%)	199, 206
		Phorate (unlabeled)	199, 206
		Phosmet (dimethyl-D <sub>6</sub> , 98%)	206
		Phosmet (dimethyl-D <sub>6</sub> ,98%)	199
		Phosmet (unlabeled)	199, 206
		Phthalic acid (carboxyl- <sup>13</sup> C,99%)	189
		Phthalic acid (ring-D <sub>4</sub> ,98%)	189
		2-Picoline (2-methylpyridine) (D <sub>7</sub> ,98%)	189
		3-Picoline (3-methylpyridine) (D <sub>7</sub> ,98%)	189
		4-Picoline (4-methylpyridine) (D <sub>7</sub> ,98%)	189
		Pinacolyl methylphosphonic acid (unlabeled)	199, 221
		Polybrominated Dioxin and Furan Mixture	64
		Polybrominated Diphenyl Ether Analytical Standard Solution	133
		Polybrominated Diphenyl Ether PAR Solution	132
		Polybrominated Diphenyl Ether Performance Standard Solution	131
		Polybrominated Diphenyl Ether Predominant Congener Mixture	131
		Polybrominated Diphenyl Ether Surrogate Spiking Solution	131
		POPs Cleanup Spike	213
		POPs HRMS HCH Calibration Solutions	215
		POPs HRMS HCH Cleanup Spike	215
		POPs PAR Solution	213
		POPs Pesticides Calibration Solutions	212

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
POPs Pesticides HRMS Cleanup Spike	213	3,3',4,4'-TCDE (Tetrachlorodiphenyl ether) ( <sup>13</sup> C <sub>12</sub> ,99%)	101
POPs Pesticides HRMS (PCB) Syringe Spike	104	TCDF-HpCDF Standard Solution (B) (2,3,7,8 isomers)	55
POPs Pesticides HRMS (PCB) Syringe Spike	210, 213	TCDF-HpCDF Window Defining Mixture (DB-5)	56
POPs Pesticides LRMS Cleanup Spike	213	TCDF-OCDF Standard Solution	53
POPs Pesticides, non-Toxaphene, non-HCH Calibration Solutions	214	(2,3,7,8 isomers excluding 2,3,4,6,7,8-HxCDF)	
POPs Pesticides, non-Toxaphene, non-HCH HRMS Cleanup Spike	215	Terbufos (diethoxy- <sup>13</sup> C <sub>4</sub> ,99%)	199, 207
POPs Toxaphene Calibration Solutions	211	Terephthalic acid (ring-D <sub>4</sub> ,98%)	190
POPs Toxaphene Surrogate Solution with PCB Syringe	211	p-Terphenyl (D <sub>14</sub> ,98%)	142, 144, 190
Potassium bromate ( <sup>18</sup> O <sub>3</sub> ,98%)	169	p-Terphenyl (unlabeled)	143, 190
Potassium bromate (unlabeled)	169	o-Terphenyl (D <sub>14</sub> ,98%)	142, 190
Predominant Bioaccumulative Toxaphene Congeners	211	α-Terpineol (D <sub>3</sub> ,98%)	159
Predominant Mono-Deca PCB Spike	96	α-Terpineol (propyl methyl-D <sub>3</sub> ,98%)	190
Pre-Sampling Spike Mix	53	Testosterone (1,2-D <sub>2</sub> ,98%)	165
Progesterone (2,2,6,6,17,21,21-D <sub>8</sub> ,96%)	165	Testosterone (2,2,4,6,6-D <sub>5</sub> ,98%)	165
Progesterone (unlabeled)	165	Testosterone (2,2,4,6,6,D <sub>5</sub> ,98%)	165
Propazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	201, 206	Testosterone (unlabeled)	165
Propoxur (isopropyl-D <sub>7</sub> ,98%)	200, 206	3,3',4,4'-TetraBB (Tetrabromobiphenyl) ( <sup>13</sup> C <sub>12</sub> ,99%) (PBB-77)	122
1,2-Propylene oxide (D <sub>6</sub> ,98%)	189	3,3',4,4'-TetraBB Certified Standard (PBB-77)	122
Purgeables/Volatiles Mixture-E.1	158, 159	2,2',4,4'-TetraBDE (Tetrabromodiphenyl ether) ( <sup>13</sup> C <sub>12</sub> ,99%) (BDE-47)	117, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135
Purgeables/Volatiles Mixture-F	158, 159	2,2',4,4'-TetraBDE (unlabeled)	120, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134
Purgeables/Volatiles Mixture-G	158, 159	2,2',4,5'-TetraBDE (unlabeled) (BDE-49)	120, 126, 127, 130, 132, 133
Purgeables/Volatiles Mixture-H	158, 159	2,2',4,6'-TetraBDE (unlabeled) (BDE-51)	120
PXB Native PAR Solution	113	2,3',4,4'-TetraBDE (unlabeled) (BDE-66)	120, 126, 127, 130, 131, 132, 133, 134
PXB Syringe Standard	113	2,3',4',6'-TetraBDE (unlabeled) (BDE-71)	120, 126, 127, 130, 131, 132, 133
Pyrene (1,2,3- <sup>13</sup> C <sub>3</sub> ,99%)	140, 144, 190	2,4,4',6'-TetraBDE (unlabeled) (BDE-75)	120, 130, 132, 133
Pyrene (D <sub>10</sub> ,98%)	142, 144, 145, 154, 157, 190	3,3',4,4'-TetraBDE ( <sup>13</sup> C <sub>12</sub> ,99%) (BDE-77)	117, 38, 130, 131, 133, 134, 135, 216, 219
Pyrene (unlabeled)	143, 145, 190	3,3',4,4'-TetraBDE (unlabeled)	120, 126, 127, 130, 132, 133
Quinoline (D <sub>7</sub> ,98%)	190	3,3',4,5'-TetraBDE (unlabeled) (BDE-79)	120
Quinuclidinyl benzilate (unlabeled)	221	Tetrabromobisphenol A (ring- <sup>13</sup> C <sub>12</sub> ,99%)	178, 179
Rapid PCB Screening Calibration Solutions	95	Tetrabromobisphenol A (TBBPA) (ring- <sup>13</sup> C <sub>12</sub> ,99%)	123
Rapid PCB Screening Native PAR Solution	95	Tetrabromobisphenol A (TBBPA) (unlabeled)	123
Rapid PCB Screening Syringe Spike	95	Tetrabromobisphenol A (unlabeled)	178, 179
RDX ( <sup>13</sup> C <sub>3</sub> ,99%)	180	2,3,4,5-Tetrabromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175
RDX ( <sup>13</sup> C <sub>3</sub> ,99%; <sup>15</sup> N <sub>3</sub> ,98%)	180	2,3,4,5-Tetrabromophenol (unlabeled)	175
RDX (unlabeled)	180	2,2',3,5'-TetraCB (Tetrachlorobiphenyl) (PCB-44)	70, 95, 99, 100, 105, 106, 107, 108
Recovery Standard for Dioxin, Furan and PCB in Tissue	38	2,2',4,4'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-47)	67
Resorcinol ( <sup>13</sup> C <sub>6</sub> ,99%)	167	2,2',4,4'-TetraCB (unlabeled)	70
Ricinine (ring- <sup>13</sup> C <sub>5</sub> ,99%;cyano- <sup>13</sup> C,99%)	221	2,2',4,5'-TetraCB (PCB-49)	70, 99, 100, 105, 106, 108
RoHS PBDE Calibration Solutions	126	2,2',5,5'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-52)	67, 73, 74, 78, 94, 95, 96, 97, 98, 101, 103, 124, 125
RoHS PBDE Cleanup Spike	127	2,2',5,5'-TetraCB (unlabeled)	70, 78, 94, 95, 96, 97, 99, 100, 105, 106, 107, 108, 110
RoHS PBDE Native PAR Spike	127	2,2',6,6'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%)(PCB-54)	67, 73, 74
RoHS PBDE Syringe Spike	127	2,2',6,6'-TetraCB (unlabeled)	70, 72, 74, 75, 106, 107, 111
RoHS Screening PBDE Calibration Solutions	128	2,3,3',5'-TetraCB (unlabeled) (PCB-57)	70, 106, 107
RoHS Screening PBDE Cleanup Spike	129	2,3,4,4'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-60)	67, 76, 77, 78, 92, 93
RoHS Screening PBDE Native PAR Spike	129	2,3,4,4'-TetraCB (unlabeled)	70
RoHS Screening PBDE Syringe Spike	129	2,3',4,4'-TetraCB (unlabeled) (PCB-66)	70, 99, 100, 106, 108
Semicarbazide hydrochloride (SEM) ( <sup>13</sup> C <sub>9</sub> ,99%; <sup>15</sup> N <sub>2</sub> ,98%)	169	2,3',4',5'-TetraCB (unlabeled) (PCB-66)	70, 99, 100, 106, 108
Semicarbazide hydrochloride (SEM) (unlabeled)	169	2,3',4',5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-70)	49, 67, 76, 77, 78, 80, 81, 82, 83, 84, 86, 87, 88, 89, 91, 92, 93, 95, 96, 97, 98, 104, 209, 210, 212
Semi-Volatiles Mixture-1/Appendix C	159	2,3',4',5-TetraCB (unlabeled)	70, 105, 106
Semi-Volatiles Mixture-1/Appendix C	159	2,4,4',5-TetraCB (unlabeled) (PCB-74)	70, 99, 100, 105, 106, 107, 108
Simazine (ring- <sup>13</sup> C <sub>3</sub> ,99%)	178, 201, 207	3,3',4,4'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-77)	36, 37, 39, 40, 49, 67, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 102, 103, 178
Simazine (unlabeled)	201, 207	3,3',4,4'-TetraCB (D <sub>6</sub> ,98%)	68
trans-Stilbene (D <sub>12</sub> ,98%)	190	3,3',4,4'-TetraCB (unlabeled)	36, 48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 91, 92, 93, 106, 107, 109, 110, 111
Styrene (2,3,4,5,6-D <sub>5</sub> ,98%)	159, 190	3,3',4,5-TetraCB (unlabeled) (PCB-78)	70, 106, 107, 113
Styrene (D <sub>8</sub> ,98%)	190, 207	3,3',4,5'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-79)	40, 49, 68, 80, 81, 82, 83, 86, 87, 88, 89, 91, 104
Styrene (vinyl-D <sub>3</sub> ,98%)	190		
Sulfamethazine (phenyl- <sup>13</sup> C <sub>6</sub> ,90%)	167		
Sulfamethazine (unlabeled)	167		
Sulfamethoxazole (ring- <sup>13</sup> C <sub>6</sub> ,99%)	167		
Sulfamethoxazole (unlabeled)	167		
Supplemental Internal Standard Solution	27		
2,3,7,8-TBDD (Tetrabromodibenzo-p-dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	12, 58, 59, 60, 61, 62, 63		
2,3,7,8-TBDD (unlabeled)	12, 58, 60, 62, 64		
2,3,7,8-TBDF (Tetrabromodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 58, 59, 60, 61, 62, 63		
2,3,7,8-TBDF (unlabeled)	14, 58, 60, 62, 64		
2,4,6,8-TBDF ( <sup>13</sup> C <sub>12</sub> ,99%)	13, 38, 58, 59, 60, 61		
2,4,6,8-TBDF (unlabeled)	14, 58, 60		
TCDD Column Performance Solution Mixture	57		
TCDD-HpCDD Standard Solution (B) (2,3,7,8 isomers)	55		
TCDD-HpCDD Window Defining Mixture (DB-5)	56		
TCDD-OCDD Standard Solution (2,3,7,8 isomers)	53		

Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
3,3',4,5'-TetraCB (unlabeled)	70, 106, 107	1,3,6,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 40, 41, 42, 43, 44, 46, 47, 52, 54
3,3',5,5'-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-80)	36, 38, 68	1,3,6,8-TCDF (unlabeled)	8, 10, 20, 41, 42, 43, 46, 48, 56
3,3',5,5'-TetraCB (unlabeled)	70	1,3,6,9-TCDF (unlabeled)	10
3,4,4',5-TetraCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-81)	36, 37, 39, 40, 49, 68, 73, 74, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 92, 93, 102, 103	1,3,7,8-TCDF (unlabeled)	10
3,4,4',5-TetraCB (unlabeled)	36, 48, 70, 72, 75, 76, 79, 80, 82, 83, 85, 86, 87, 88, 89, 92, 106, 107, 109	1,3,7,9-TCDF (unlabeled)	10
1,2,3,4-TCDD (Tetrachlorodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 40, 41, 42, 43, 44, 45, 46, 49, 57	1,4,6,7-TCDF (unlabeled)	10
1,2,3,4-TCDD ( <sup>13</sup> C <sub>6</sub> ,99%)	4, 36, 38, 101, 134, 135, 216, 219	1,4,6,8-TCDF (unlabeled)	10
1,2,3,4-TCDD (unlabeled)	4, 11, 57	1,4,6,9-TCDF (unlabeled)	10
1,2,3,6-TCDD (unlabeled)	11	1,4,7,8-TCDF (unlabeled)	10
1,2,3,7-TCDD (unlabeled)	11	1,6,7,8-TCDF (unlabeled)	10
1,2,3,7-TCDD/1,2,3,8-TCDD Isomer Pair (unlabeled)	4, 20, 56, 57	2,3,4,6-TCDF (unlabeled)	10
1,2,3,8-TCDD (unlabeled)	11	2,3,4,7-TCDF (unlabeled)	8, 10, 56
1,2,3,9-TCDD (unlabeled)	4, 11, 20, 56	2,3,4,8-TCDF (unlabeled)	10
1,2,4,6-TCDD (unlabeled)	11	2,3,6,7-TCDF (unlabeled)	10
1,2,4,7-TCDD (unlabeled)	11	2,3,6,8-TCDF (unlabeled)	10
1,2,4,8-TCDD (unlabeled)	11	2,3,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54, 56
1,2,4,9-TCDD (unlabeled)	11	2,3,7,8-TCDF (unlabeled)	8, 10, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 48, 55, 56
1,2,6,7-TCDD (unlabeled)	11	2,4,6,7-TCDF (unlabeled)	10
1,2,6,8-TCDD (unlabeled)	11	2,4,6,8-TCDF (unlabeled)	10
1,2,6,9-TCDD (unlabeled)	11	3,4,6,7-TCDF (unlabeled)	10
1,2,7,8-TCDD (unlabeled)	4, 11, 57	1,2,3,4-Tetrachlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 175
1,2,7,9-TCDD (unlabeled)	11	1,2,3,4-Tetrachlorobenzene (unlabeled)	151, 175
1,2,8,9-TCDD (unlabeled)	4, 11, 20, 41, 42, 43, 46, 48, 56	1,2,3,5-Tetrachlorobenzene (unlabeled)	175
1,3,6,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 40, 41, 42, 43, 44, 49, 52, 54	1,2,4,5-Tetrachlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 175, 190
1,3,6,8-TCDD (unlabeled)	4, 11, 20, 41, 42, 43, 46, 48, 56	1,2,4,5-Tetrachlorobenzene (D <sub>2</sub> ,98%)	190
1,3,6,9-TCDD (unlabeled)	11	1,2,4,5-Tetrachlorobenzene (unlabeled)	175
1,3,7,8-TCDD (unlabeled)	4, 11	Tetrachlorobisphenol A (ring- <sup>13</sup> C <sub>12</sub> ,99%)	123, 179
1,3,7,9-TCDD (unlabeled)	4, 11, 41, 42, 43, 46, 48	Tetrachlorobisphenol A (unlabeled)	123, 179
1,4,6,9-TCDD (unlabeled)	11	Tetrachlorocatechol (unlabeled)	152
1,4,7,8-TCDD (unlabeled)	5, 11, 57	3,4,5,6-Tetrachlorocatechol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	152
2,3,7,8-TCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 51, 52, 53, 54, 56, 57, 178, 190, 216	3,4,5,6-Tetrachlorocatechol (unlabeled)	190
2,3,7,8-TCDD ( <sup>37</sup> Cl <sub>4</sub> ,96%)	4, 19, 20, 22, 23, 26, 27, 28, 57	2,3,7,8-Tetrachlorodibenzothiophene (unlabeled)	147
2,3,7,8-TCDD (unlabeled)	5, 11, 19, 20, 21, 22, 24, 25, 26, 28, 29, 31, 32, 33, 36, 41, 42, 43, 44, 46, 47, 48, 53, 55, 56, 57, 178, 190	3,3',4,4'-TetraCDE (Tetrachlorodiphenyl ether) ( <sup>13</sup> C <sub>12</sub> ,99%)	179
1,2,3,4-TCDF (Tetrachlorodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 40, 41, 42, 44, 45	1,1,2,2-Tetrachloroethane (D <sub>2</sub> ,99.6%)	154, 155, 158, 190
1,2,3,4-TCDF (unlabeled)	10	Tetrachloroethylene ( <sup>13</sup> C <sub>2</sub> ,99%)	158, 190
1,2,3,6-TCDF (unlabeled)	10	Tetrachloroguaiacol (unlabeled)	152, 153
1,2,3,7-TCDF (unlabeled)	10	3,4,5,6-Tetrachloroguaiacol ( <sup>13</sup> C <sub>6</sub> ,99%)	152
1,2,3,8-TCDF (unlabeled)	10	3,4,5,6-Tetrachloroguaiacol (unlabeled)	190
1,2,3,9-TCDF (unlabeled)	8, 10, 56	1,2,3,4-Tetrachloronaphthalene ( <sup>13</sup> C <sub>10</sub> ,99%)	146, 147
1,2,4,6-TCDF (unlabeled)	10	1,2,3,4-Tetrachloronaphthalene (unlabeled)	146, 147
1,2,4,7-TCDF (unlabeled)	10	1,3,5,7-Tetrachloronaphthalene ( <sup>13</sup> C <sub>10</sub> ,99%)	146, 147
1,2,4,8-TCDF (unlabeled)	10	1,3,5,7-Tetrachloronaphthalene (unlabeled)	146, 147
1,2,4,9-TCDF (unlabeled)	10	1,2,5,6-Tetrachloronaphthalene (unlabeled)	146
1,2,6,7-TCDF (unlabeled)	10	2,3,6,7-Tetrachloronaphthalene (unlabeled)	146
1,2,6,8-TCDF (unlabeled)	10	2,3,4,5-Tetrachlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	151
1,2,6,9-TCDF (unlabeled)	10	2,3,4,5-Tetrachlorophenol (unlabeled)	190
1,2,7,8-TCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 40, 41, 42, 43, 44, 45, 46, 47, 49	2,3,4,6-Tetrachlorophenol (unlabeled)	152, 190
1,2,7,8-TCDF (unlabeled)	8, 10, 41, 42, 43, 46, 48, 49	2,3,5,6-Tetrachlorophenol (unlabeled)	190
1,2,7,9-TCDF (unlabeled)	10	<i>n</i> -Tetracosane (D <sub>50</sub> ,98%)	159, 181
1,2,8,9-TCDF (unlabeled)	8, 10, 20, 41, 42, 43, 46, 48, 56	<i>n</i> -Tetradecane (D <sub>30</sub> ,98%)	181
1,3,4,6-TCDF (unlabeled)	10	Tetra-Hexa Brominated Dioxin and Furan Standard Solution	63
1,3,4,7-TCDF (unlabeled)	10	<i>cis</i> -1,2,3,6-Tetrahydrophthalic anhydride (3,3,4,5,6,6-D <sub>6</sub> ,98%)	190
1,3,4,8-TCDF (unlabeled)	10	<i>cis</i> -1,2,3,6-Tetrahydrophthalimide (3,3,4,5,6,6-D <sub>6</sub> ,98%)	190
1,3,4,9-TCDF (unlabeled)	10	Tetra-OctaCDD and CDF Standard Solution (2,3,7,8-isomers)	51
1,3,6,7-TCDF (unlabeled)	10	Tetra-OctaCDD and CDF Standard Solution (2,3,7,8 isomers + 1,3,6,8-TCDD)	52
		Tetra-OctaCDD and CDF Standard Solution (2,3,7,8-isomers excluding 1,2,3,7,8,9-HxCDD)	51
		Tetra-Octa PCN Mixture	147
		Tetra-Penta Brominated Dioxin and Furan Standard Solution	63
		Thiabenzazole (ring- <sup>13</sup> C <sub>6</sub> ,99%)	167
		Thiabenzazole (unlabeled)	167
		Thiodiglycol ( <sup>13</sup> C <sub>4</sub> ,99%)	221
		Thiodiglycol (D <sub>8</sub> ,98%)	221
		Thiodiglycol sulfoxide (unlabeled)	221
		Thiodiglycol (unlabeled)	221
		L-Thyroxine (tyrosine ring- <sup>13</sup> C <sub>6</sub> ,99%)	165



Product	Page	Product	Page
<i>Italicized page numbers indicate that the compound is part of a mixture</i>			
Toluene (D <sub>8</sub> ,99.5%)	155, 190	1,1,1-Trichloroethane (2,2,2-D <sub>3</sub> ,98%)	158, 191
Toluene (D <sub>8</sub> ,99.6%)	154, 158	1,1,2-Trichloroethane ( <sup>13</sup> C <sub>2</sub> ,99%)	158, 191
Toluene (methyl- <sup>13</sup> C,99%)	190	1,1,2-Trichloroethane (1,2,2-D <sub>3</sub> ,98%)	191
Toluene (methyl-D <sub>3</sub> ,98%)	190	Trichloroethylene ( <sup>13</sup> C <sub>2</sub> ,99%)	158, 191
Toluene (ring- <sup>13</sup> C <sub>6</sub> ,99%)	190	Trichloroethylene (D,98%)	191
Toluene (ring-D <sub>5</sub> ,98%)	190	3,4,5-Trichloroguaiacol (unlabeled)	152, 153
Toxic and Predominant PCB PAR Solution	99, 108	3,4,6-Trichloroguaiacol (unlabeled)	152, 153
Toxic and Predominant PCB Spiking Standard	98	4,5,6-Trichloroguaiacol (unlabeled)	152, 153
2,3,7-TrBDD (Tribromodibenzo- <i>p</i> -dioxin) ( <sup>13</sup> C <sub>12</sub> ,99%)	12	4,5,6-Trichloroguaiacol ( <sup>13</sup> C <sub>6</sub> ,99%)	152
2,3,7-TrBDD (unlabeled)	12	1,2,3-Trichloronaphthalene (unlabeled)	146
2,4,8-TrBDF (Tribromodibenzofuran) ( <sup>13</sup> C <sub>12</sub> ,99%)	13	2,4,5-Trichlorophenol (ring-D <sub>2</sub> ,98%)	156, 191
2,4,8-TrBDF (unlabeled)	14	2,4,5-Trichlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 175, 191
1,3,7-TrCDD (Trichlorodibenzo- <i>p</i> -dioxin) (unlabeled)	4	2,4,5-Trichlorophenol (unlabeled)	152, 175
2,3,7-TrCDD ( <sup>13</sup> C <sub>12</sub> ,99%)	3, 50, 53	2,4,6-Trichlorophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	151, 175, 191
2,3,7-TrCDD (unlabeled)	4, 55	2,4,6-Trichlorophenol (ring-D <sub>2</sub> ,98%)	156, 191
1,2,3-TrCDF (Trichlorodibenzofuran) (unlabeled)	8	2,4,6-Trichlorophenol (unlabeled)	152, 175
2,4,6-TrCDF (unlabeled)	55	3,4,5-Trichlorophenol (unlabeled)	152
2,4,8-TrCDF ( <sup>13</sup> C <sub>12</sub> ,99%)	6, 50, 53	2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (ring- <sup>13</sup> C <sub>6</sub> ,99%)	178, 207
2,4,8-TrCDF (unlabeled)	8, 50	2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (unlabeled)	178, 207
<i>n</i> -Triacontane (D <sub>62</sub> ,98%)	159, 181	1,2,3-Trichloropropane (D <sub>5</sub> ,98%)	169, 179, 191
2,2',4'-TriBDE (Tribromodiphenyl ether) (unlabeled) (BDE-17)	119, 126, 127, 130, 131, 132, 133, 134	1,2,3-Trichloropropane (unlabeled)	169, 179
2,3',4'-TriBDE (unlabeled) (BDE-25)	119, 130, 132, 133	Trichlorosyringol (unlabeled)	152
2,4,4'-TriBDE ( <sup>13</sup> C <sub>12</sub> ,99%) (BDE-28)	117, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 135	<i>n</i> -Tricosane (D <sub>48</sub> ,98%)	181
2,4,4'-TriBDE (unlabeled)	119, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134	<i>n</i> -Tridecane (D <sub>28</sub> ,98%)	181
2,4,6-TriBDE (unlabeled) (BDE-30)	119, 130, 132, 133	Triethanolamine (D <sub>15</sub> ,98%)	191
2,4',6-TriBDE (unlabeled) (BDE-32)	119, 130, 132, 133	Trifluralin (di- <i>n</i> -propyl-D <sub>14</sub> ,98%)	178, 207
2',3,4-TriBDE (unlabeled) (BDE-33)	119, 130, 132, 133	Trifluralin (unlabeled)	207
3,3',4-TriBDE (unlabeled) (BDE-35)	120, 130, 132, 133	Trimethoprim ( <sup>13</sup> C <sub>3</sub> ,99%)	167
3,4,4'-TriBDE (unlabeled) (BDE-37)	120, 130, 132, 133	Trimethoprim (unlabeled)	167
2,3,4-Tribromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175	4-(1,1,5-Trimethylhexyl) phenol (ring- <sup>13</sup> C <sub>6</sub> ,99%)	172
2,4,5-Tribromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175	4-(1,1,5-Trimethylhexyl) phenol (unlabeled)	172
2,4,5-Tribromophenol (unlabeled)	175	1,2,2-Trimethylpropyl hydrogen methylphosphonate (Pinacolyl hydrogen methylphosphonate) (trimethylpropyl- <sup>13</sup> C <sub>6</sub> ,99%)	221
2,4,6-Tribromophenol ( <sup>13</sup> C <sub>6</sub> ,99%)	175	1,2,2-Trimethylpropyl hydrogen methylphosphonate (trimethylpropyl- <sup>13</sup> C <sub>6</sub> ,99%)	199, 207
2,4,6-Tribromophenol (3,5-D <sub>2</sub> ,98%)	175	1,3,5-Trinitrobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	180
2,4,6-Tribromophenol (unlabeled)	175	1,3,5-Trinitrobenzene (unlabeled)	180
2,4,5-Tribromophenol ( <sup>13</sup> C <sub>6</sub> ,98%)	175	2,4,6-Trinitrotoluene (TNT) ( <sup>13</sup> C <sub>7</sub> ,99%; <sup>15</sup> N <sub>3</sub> ,98%)	180
Tributyltin chloride (D <sub>27</sub> ,98%)	179, 190	2,4,6-Trinitrotoluene (TNT) (unlabeled)	180
Tributyltin chloride (unlabeled)	179, 190	Triphenylene (D <sub>12</sub> ,98%)	142
2,2',4'-TriCB (Trichlorobiphenyl) (unlabeled) (PCB-17)	105	Two Column Dioxin and Furan and PCB Calibration Solutions	48
2,2',5'-TriCB (unlabeled) (PCB-18)	70, 95, 99, 100, 105, 106, 107, 108	Two Column Dioxin and Furan and PCB Cleanup Spike	47
2,2',6'-TriCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-19)	67, 73, 74	Two Column Dioxin and Furan Calibration Solutions	46
2,2',6'-TriCB (unlabeled)	70, 72, 75, 106, 107	Two Column Dioxin and Furan Cleanup Spike	47
2,4,4'-TriCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-28)	67, 73, 74, 78, 94, 95, 96, 97, 98, 101, 103	Two Column Dioxin and Furan Syringe Spike	47
2,4,4'-TriCB (unlabeled)	70, 78, 94, 95, 96, 97, 99, 100, 105, 106, 108, 110, 111	Unlabeled PCB Mixture	94, 110
2,4,6-TriCB (unlabeled) (PCB-30)	70, 105, 106	Vinyl bromide (D <sub>3</sub> ,98%)	191
2,4',5-TriCB (unlabeled) (PCB-31)	70, 105, 106	Vinyl chloride (D <sub>3</sub> ,98%)	154, 155, 158, 191
2,4',6-TriCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-32)	67, 96, 97, 98	Warfarin (phenyl-D <sub>5</sub> ,98%)	167, 207
2,4',6-TriCB (unlabeled)	70	Warfarin (unlabeled)	167, 207
2',3,4-TriCB (unlabeled) (PCB-33)	70, 105, 106, 107	WHO Coplanar and Mono-Ortho PCBs	85, 90, 91, 102, 109
3,3',4-TriCB (unlabeled) (PCB-35)	70, 106, 107	WHO Coplanar and Mono-Ortho PCBs and PCB-170, 180 Calibration Set	85
3,4,4'-TriCB ( <sup>13</sup> C <sub>12</sub> ,99%) (PCB-37)	67, 73, 74, 216	WHO PCB and PCB-170/180 Sampling Standard	91, 104
3,4,4'-TriCB (unlabeled)	70, 72, 75, 106, 107, 111	WHO PCB and PCB-170 + 180 + Syringe PCB Calibration Solutions	88
3,4,5-TriCB (unlabeled) (PCB-38)	70, 106, 107	WHO PCB + PCB-170 + PCB-180 Calibration Solutions	87
3,4',5-TriCB (unlabeled) (PCB-39)	70	WHO PCB + PCB-170 + PCB-180 Cleanup Standard	90, 102
2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) ( <sup>13</sup> C <sub>12</sub> ,99%)	163, 169	WHO PCB + PCB-170 + PCB-180 + Syringe PCB Calibration Solutions	86
2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) (unlabeled)	163, 169	<i>m</i> -Xylene (D <sub>10</sub> ,98%)	191
2,4,6-Trichloroanisole (D <sub>5</sub> ,98%)	169, 191	<i>o</i> -Xylene (D <sub>10</sub> ,98%)	191
2,4,6-Trichloroanisole (unlabeled)	169, 191	<i>p</i> -Xylene (D <sub>10</sub> ,98%)	191
1,2,3-Trichlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151		
1,2,3-Trichlorobenzene (4,5,6-D <sub>3</sub> ,98%)	157, 191		
1,2,3-Trichlorobenzene (unlabeled)	151		
1,2,4-Trichlorobenzene ( <sup>13</sup> C <sub>6</sub> ,99%)	151		
1,2,4-Trichlorobenzene (3,5,6-D <sub>3</sub> ,98%)	156		
1,2,4-Trichlorobenzene (D <sub>3</sub> ,98%)	191		
1,3,5-Trichlorobenzene (D <sub>3</sub> ,98%)	191		
3,4,4'-Trichlorocarbanilide (Triclocarban) (4'-chlorophenyl- <sup>13</sup> C <sub>6</sub> ,99%)	163		
3,4,4'-Trichlorocarbanilide (Triclocarban) (unlabeled)	163		
3,4,5-Trichlorocatechol (unlabeled)	152, 191		
3,4,6-Trichlorocatechol (unlabeled)	152		
1,1,1-Trichloroethane (2- <sup>13</sup> C,99%)	179		

# Index

Catalog #	Page	Catalog #	Page	Catalog #	Page	Catalog #	Page
BDE-1-CS	119	CLM-731-0.5	184	CLM-3913-S	177, 180	CLM-7102-1.2	123
BDE-2-CS	119	CLM-731-1	184	CLM-4306-1.2	172, 178	CLM-7140	200, 202
BDE-3-CS	119, 183	CLM-735-1	185	CLM-4307-1.2	172	CLM-7286-1.2	163
BDE-7-CS	119	CLM-803-1.2	164	CLM-4325-1.2	176, 179, 183	CLM-7292-1.2	200, 203, 200, 203
BDE-8-CS	119	CLM-804-0.1	164	CLM-4484-1.2	175, 185	CLM-7322-1.2	178, 200, 206
BDE-10-CS	119	CLM-810-1	187	CLM-4512-1.2	172, 178	CLM-7323-1.2	178, 200, 206
BDE-11-CS	119	CLM-813-1.2	168	CLM-4516-1.2	172	CLM-7341	184
BDE-12-CS	119	CLM-816-1.2	197, 204	CLM-4538-1.2	206	CLM-7389-1.2	200, 205
BDE-13-CS	119	CLM-856-0.1	182	CLM-4542-1.2	200, 206	CLM-7407-1MG	167
BDE-15-CS	119	CLM-871-0.5	183	CLM-4542-SA-1.2	200, 206	CLM-7488	175
BDE-17-CS	119	CLM-1006-0.5	186	CLM-4543	199, 207	CLM-7528-1.2	201
BDE-25-CS	119	CLM-1217-1	183	CLM-4544-1.2	199, 206	CLM-7531-1.2	187, 195, 197, 205
BDE-28-CS	119	CLM-1281-1.2	176, 185, 196, 203	CLM-4545-1.2	198, 205	CLM-7864-1.2	188
BDE-30-CS	119	CLM-1281-5	185, 196, 203	CLM-4551-1.2	178, 207	CLM-7885-1.2	163
BDE-32-CS	119	CLM-1282-1.2	176, 182, 196, 202	CLM-4555-1.2	174, 174	CLM-7892	167
BDE-33-CS	119	CLM-1305-1.2	179	CLM-4557-1.2	174	CLM-7922-0.5	123
BDE-35-CS	120	CLM-1332-1.2	140, 188	CLM-4584-1.2	171	CLM-7923-1.2	123
BDE-37-CS	120	CLM-1333-1.2	139, 176, 182	CLM-4586-1.2	171	CLM-7924-1.2	123
BDE-47-CS	120	CLM-1340-0.1	185	CLM-4587-1.2	171	CLM-7930-1.2	178, 189, 201
BDE-49-CS	120	CLM-1364-1.2	139, 182	CLM-4589-1.2	171	CLM-7931-1.2	178, 189, 201
BDE-51-CS	120	CLM-1365-1.2	175	CLM-4590-1.2	170	CLM-7932-1.2	178, 189, 201
BDE-66-CS	120	CLM-1518-1	185	CLM-4591-1.2	170	CLM-7935-1.2	164
BDE-71-CS	120	CLM-1519-0.1	180	CLM-4592-1.2	171	CLM-7935-0.1MG	164
BDE-75-CS	120	CLM-1519-5	180	CLM-4668-1.2	170, 177	CLM-7936-1.2	164
BDE-77-CS	120	CLM-1520-1	184	CLM-4669-1.2	170, 177	CLM-7936-0.1MG	164
BDE-79-CS	120	CLM-1544-1.2	3, 185	CLM-4670-1.2	170	CLM-7988-A-1.2	167
BDE-85-CS	120	CLM-1559-1	184	CLM-4671-1.2	177	CLM-8003-1.2	175
BDE-99-CS	120	CLM-1561-1.2	6, 185	CLM-4674-1.2	176, 179	CLM-8005-1.2	173
BDE-100-CS	120	CLM-1587-1.2	117, 186	CLM-4675-1.2	170, 176	CLM-8006-1.2	123, 179
BDE-105-CS	120	CLM-1593-0.25	188	CLM-4682-1.2	176, 200, 202	CLM-8007-1.2	175
BDE-116-CS	120	CLM-1593-0.5	188	CLM-4683-1.2	177, 197, 206	CLM-8008-1.2	163, 179
BDE-118-CS	120	CLM-1627-1.2	176, 185, 196, 203	CLM-4692-1.2	176, 185, 196, 203	CLM-8011-0.1MG	164
BDE-119-CS	120	CLM-1627-5	185, 196, 203	CLM-4693-1.2	176, 185, 196, 203	CLM-8012-0.1MG	164
BDE-120-CS	121	CLM-1643-1.2	139, 176, 182	CLM-4694-1.2	123, 178, 179	CLM-8013-0.1MG	165
BDE-126-CS	121	CLM-1804-1	191	CLM-4695-1.2	179	CLM-8014-0.1MG	165
BDE-128-CS	121	CLM-1804-SI-1.2	175	CLM-4725-1.2	176, 182, 195	CLM-8015-0.1MG	165
BDE-138-CS	121	CLM-1836-1.2	175		196, 202	CLM-8016-0.1MG	164
BDE-139-CS	121	CLM-1858-1.2	177, 204	CLM-4726-1.2	177, 186, 195,	CLM-8017-0.1MG	165
BDE-140-CS	121	CLM-1859-1.2	200, 202		197, 204	CLM-8060-1.2	173
BDE-148-CS	121	CLM-1911-1.2	200, 202	CLM-4727-1.2	177, 195, 197, 205	CLM-8087-1.2	184, 195, 196, 202
BDE-153-CS	121	CLM-1913-1.2	175, 203	CLM-4729-1.2	178, 195, 197, 206	CLM-8148-1.2	170
BDE-154-CS	121	CLM-1921-1.2	175	CLM-4734-1.2	177, 187, 195,	CLM-8172-1.2	173
BDE-155-CS	121	CLM-1955-1.2	175, 178, 189		197, 205	CLM-8232	170
BDE-166-CS	121	CLM-1959-1.2	175	CLM-4735-1.2	177, 195, 197, 206	CLM-8240-1.2	173
BDE-175-CS	121	CLM-1965-0.1	190	CLM-4745-1.2	163, 179	CLM-8249-1.2	163
BDE-181-CS	121	CLM-1982-1.2	175	CLM-4748-1.2	168	CLM-8267-1.2	139
BDE-183-CS	121	CLM-1996-1.2	175	CLM-4758-1.2	176, 195, 196, 202	CLM-8285-1.2	163
BDE-190-CS	121	CLM-2003-0.1	188	CLM-4759-1.2	177, 187, 195,	CLM-8310-1.2	201, 205
BDE-197-CS	121	CLM-2003-0.5	188		197, 205	CLM-8311-1.2	201, 202
BDE-203-CS	121	CLM-2050-1.2	175, 178, 189	CLM-4782-1.2	177, 187, 195,	CLM-8312-1.2	201, 204
BDE-204-CS	122	CLM-2075-0.1	191		197, 205	CLM-8313-1.2	201, 203
BDE-205-CS	122	CLM-2078-1	197, 206	CLM-4792-1.2	176, 184, 195,	CLM-8314-1.2	201, 204
BDE-206-CS	122	CLM-2090-1	183		196, 202	CLM-8315-1.2	201, 203
BDE-207-CS	122	CLM-2091	184	CLM-4806	221	CLM-8316-1.2	168, 201, 203
BDE-208-CS	122	CLM-2110-5	187	CLM-4811-1.2	177, 195, 197, 206	CLM-8340-1.2	173
BDE-209-CS	122	CLM-2110-10	187	CLM-4813-1.2	177, 195, 197, 206	CLM-8356-1.2	172
C-006	166	CLM-2145-0.01	187	CLM-4814-1.2	176, 195, 196,	CLM-8357-1.2	172
C-016	166	CLM-2145-1.2	187		197, 202, 205	CLM-8358-1.2	172
C-035	166	CLM-2268-1.2	175	CLM-4815-50	177, 187, 195,	CLM-8359-1.2	172
C-041	166	CLM-2284-1	184		197, 205	CLM-8370-1.2	167
CDLM-624-1.2	196, 202	CLM-2451-1.2	140, 178, 189	CLM-4816-50	177, 195, 197, 205	CLM-8525-1.2	163
CDLM-629-0.1	182	CLM-2477-1.2	139, 182	CLM-4859-1.2	140	CLM-8569-1.2	123
CDLM-6002-1.2	200, 204	CLM-2482-1.2	176, 182, 196, 202	CLM-4860-1.2	140	CLM-8588-1.2	123
CDLM-6100-1.2	199, 221	CLM-2722-1.2	139, 176, 182	CLM-4864-1.2	220	CLM-8589-1.2	168
CDLM-7279-5	169, 174, 188	CLM-3040-0.5	189	CLM-4866-1.2	220	CLM-8705-1.2	178, 189, 201
CDLM-7665-1.2	167	CLM-3045-1.2	167	CLM-4868-1.2	220	CLM-8719-1.2	178, 189, 201
CNDLM-6786-1.2	198, 220	CLM-3235-1.2	67, 183	CLM-4870-1.2	220	CLM-8720-1.2	178, 189, 201
CLM-126-1.2	175	CLM-3373-1.2	204	CLM-4872-1.2	220	CLM-8721-1.2	178, 189, 201
CLM-129-0.1	191	CLM-3374-1.2	179, 187	CLM-4874-1.2	220	CNLM-411-1.2	166
CLM-182-0.1	182	CLM-3375-1.2	164	CLM-6023-1.2	174	CNLM-3643-S	180
CLM-182-0.5	182	CLM-3596-1.2	140, 187	CLM-6025-1.2	177, 187, 195,	CNLM-3726-1.2	166
CLM-216-0.1	189	CLM-3597-1.2	140, 187		197, 205	CNLM-4661-1.2	168
CLM-262-0.1	184	CLM-3598-1.2	139, 185	CLM-6026-1.2	177, 187, 195,	CNLM-4661-10X-1.2	168
CLM-262-0.5	184	CLM-3599-1.2	139, 176, 182		197, 205	CNLM-4666-1.2	198, 205
CLM-262-1	184	CLM-3600-1.2	140, 177	CLM-6058-1.2	175	CNLM-4666-10	198, 205
CLM-309-0.5	190	CLM-3601-1.2	140, 190	CLM-6069-0.1	190	CNLM-7148-1.2	200, 206
CLM-309-1	190	CLM-3602-1.2	139, 176, 182	CLM-6071-1.2	171	CNLM-7221-1.2	169
CLM-339-1	184	CLM-3621-1.2	140	CLM-6090	198, 220	CNLM-7539-1.2	167
CLM-351-0.01	187	CLM-3623-1.2	176, 182, 196, 202	CLM-6106-1.2	221	CNLM-7963-S	180
CLM-351-1.2	177, 187, 197, 205	CLM-3648-1.2	182, 196, 202	CLM-6144-1.2	179	CNLM-7987-S	180
CLM-473-0.1	187	CLM-3672-1.2	167	CLM-6145-1.2	179	CNLM-8150-1.2	168
CLM-473-0.5	187	CLM-3687-1.2	202	CLM-6151-1.2	175	CNLM-8150-10X-1.2	168
CLM-483-0.1	185	CLM-3712-1.2	177, 206	CLM-6170-1.2	139	D-902	166
CLM-483-1	185	CLM-3722-1.2	204	CLM-6185-1.2	179	D-907	166
CLM-503-0.5	186	CLM-3727-1.2	176, 202	CLM-6620-1.2	199, 207, 221	DLM-1-5	182
CLM-503-1	186, 191	CLM-3733-1.2	169, 189, 206	CLM-6640-1.2	171	DLM-1-10	182
CLM-513-SI-1.2	175	CLM-3737-1.2	176, 201, 202	CLM-6641-1.2	171	DLM-1-25	182
CLM-514-1.2	166	CLM-3738-1.2	201, 206	CLM-6680-1.2	189	DLM-1-50	182
CLM-585-0.1	190	CLM-3739-1.2	178, 201, 207	CLM-6725-0.1MG	165	DLM-5-5	190
CLM-585-5	190	CLM-3741-1.2	202	CLM-6743-1.2	175	DLM-5-10	190
CLM-661-0.01	189	CLM-3748-1.2	169, 189, 206	CLM-6758	202	DLM-5-25	190
CLM-661-1.2	175, 178, 189	CLM-3756-1.2	139, 176, 182	CLM-6759	202	DLM-7-50	184
CLM-673-1.2	164	CLM-3757-1.2	139, 176	CLM-6779-1.2	163, 169	DLM-7-100	184
CLM-675-5	188	CLM-3774-A	140	CLM-6847-1.2	171	DLM-9-10	182
CLM-714-0.1	182	CLM-3835-1.2	139	CLM-6890-1.2	140	DLM-9-25	182
CLM-714-0.25	182	CLM-3846-S	180	CLM-6943-1.2	166	DLM-18-1	186
CLM-726-0.1	183	CLM-3848-S	180	CLM-6944-1.2	167	DLM-18-5	186
CLM-726-0.5	183	CLM-3894-1.2	201, 202	CLM-6999-1.2	176, 184, 196, 203	DLM-23-5	188
CLM-731-0.1	184	CLM-3912-S	180	CLM-7100-1.2	184, 196, 203	DLM-23-10	188

# Index

Catalog #	Page	Catalog #	Page	Catalog #	Page	Catalog #	Page
DLM-23-25	188	DLM-494-1	183	DLM-1669-0.1	177, 186	DLM-3026-0.1	186
DLM-24-5	188	DLM-494-5	183	DLM-1843-5	185	DLM-3035-1.2	166
DLM-24-10	188	DLM-601-0.1	142	DLM-1910-0.1	183	DLM-3039	167, 189
DLM-24-25	188	DLM-601-1	142	DLM-1910-1	183	DLM-3049-1	191
DLM-28-5	186	DLM-610-0.1	141	DLM-1912-5	184	DLM-3057-0.1	164
DLM-28-10	186	DLM-610-1.2	141, 176	DLM-1923-0.01	141	DLM-3063-1.2	68
DLM-28-25	186	CDLM-624-1.2	182	DLM-1923-1.2	141, 176	DLM-3063-3	68
DLM-28-SM-1.2	186	DLM-663-0.1	183	DLM-1928-0.5	184	DLM-3073-0.1	186
DLM-35-5	190	DLM-663-1	183	DLM-1930-0.1	184	DLM-3073-0.25	186
DLM-35-10	190	DLM-663-5	183	DLM-1934-0.1	186	DLM-3093-0.01	191
DLM-50-1	181	DLM-670-1	181	DLM-1934-0.25	186	DLM-3093-0.1	191
DLM-50-5	181	DLM-670-5	181	DLM-1935-0.1	186	DLM-3098-0.01	188
DLM-102-1	141	DLM-677-0.1	141, 185	DLM-1935-1	186	DLM-3098-5	174, 188
DLM-102-1.2	141, 176	DLM-677-1.2	141, 185	DLM-1936-0.1	186	DLM-3173-0.1	186
DLM-102-5	141	DLM-683-1.2	165	DLM-1936-1	186	DLM-3190-1	186
DLM-103-1	183	DLM-686-5	187	DLM-1937-0.1	186	DLM-3322-0.5	190
DLM-103-5	183	DLM-695-1	189	DLM-1937-0.25	186	DLM-3336-1	181
DLM-106-5	182	DLM-695-5	189	DLM-1938-0.1	186	DLM-3344-5	191
DLM-108-0.1	141	DLM-787-5	189	DLM-1939-5	186, 180	DLM-3533-1.2	176, 184, 196, 203
DLM-108-1	141	DLM-799-1	191	DLM-1943-0.1	188	DLM-3740-1.2	141
DLM-108-1.2	141, 176	DLM-808-5	191	DLM-1945-0.1	183	DLM-3760-0.01	203
DLM-108-5	141	DLM-809-5	190	DLM-1947-0.1	183	DLM-3836-1.2	141
DLM-119-1.2	167, 168	DLM-820-1	182	DLM-1972-0.1	191	DLM-3837-1.2	142
DLM-122-1	182	DLM-820-5	182	DLM-1974-0.1	191	DLM-3839-1.2	142
DLM-122-5	182	DLM-849-0.1	141	DLM-1974-1	191	DLM-3841-1.2	141
DLM-133-1	181	DLM-849-0.5	141	DLM-1975-0.1	191	DLM-3842-1.2	141
DLM-133-5	181	DLM-862-1	182	DLM-1975-0.5	191	DLM-3843-1.2	141
DLM-139-1	181	DLM-862-5	182	DLM-2004-0.05	183	DLM-3875-10	141, 188
DLM-139-5	181	DLM-872-0.1	183	DLM-2004-0.1	183	DLM-3979-5	165
DLM-155-0.1	142, 190	DLM-874-10	183	DLM-2005-0.01	184	DLM-4304-10	187
DLM-155-0.5	142, 190	DLM-1008-1	179, 187	DLM-2005-0.1	184	DLM-4308-1.2	147
DLM-155-1.2	142, 190	DLM-1067-5	189	DLM-2005-1.2	141, 184	DLM-4360-1.2	176, 198, 203
DLM-158-1	185	DLM-1083-5	190	DLM-2030-1.2	182	DLM-4412-25	169
DLM-158-5	185	DLM-1088-1	190	DLM-2037-1	184	DLM-4460-1.2	177
DLM-167-1.2	191	DLM-1088-5	190	DLM-2053-0.1	190	DLM-4461-1.2	176
DLM-167-5	191	DLM-1101-5	182	DLM-2054-0.1	190	DLM-4476-1.2	177, 199, 205
DLM-170-1.2	164	DLM-1123-0.1	141, 187	DLM-2080-0.1	191	DLM-4479-1.2	178, 207
DLM-170-D-1.2	164	DLM-1123-1	141, 187	DLM-2080-1.2	169, 179	DLM-4633-1.2	168
DLM-183-1.2	163, 179	DLM-1123-1.2	141, 187	DLM-2112-1.2	186	DLM-4667-1.2	199, 206
DLM-199-10	187	DLM-1146-5	204	DLM-2130-5	174, 188	DLM-4711-1.2	142
DLM-203-0.1	181	DLM-1148-1.2	177, 198, 204	DLM-2131-0.05	189	DLM-4712-1.2	141
DLM-203-5	181	DLM-1148-5	204	DLM-2131-5	174, 189	DLM-4762-1.2	163, 204
DLM-256	182	DLM-1149-1.2	201, 202	DLM-2133-0.1	186	DLM-4762-D-1.2	163, 204
DLM-257-0.01	141	DLM-1149-5	202	DLM-2134-0.1	184	DLM-4766-1.2	169
DLM-257-1.2	141	DLM-1158-0.1	190	DLM-2135-0.01	141	DLM-4852-1.2	198, 204, 220
DLM-258-0.01	141	DLM-1158-1	190	DLM-2135-1.2	141	DLM-6000-1.2	198, 202
DLM-258-0.05	141	DLM-1171-5	184	DLM-2136-0.01	141	DLM-6083-0.1	191, 169, 191
DLM-258-0.1	141	DLM-1175-1	190	DLM-2136-1.2	141, 176	DLM-6098-1.2	198, 220
DLM-258-1.2	141, 176	DLM-1175-5	190	DLM-2138	183	DLM-6196-1.2	199, 206, 221
DLM-261-0.1	141	DLM-1176-1	190	DLM-2140-0.1	141, 187	DLM-6861-1.2	167, 207
DLM-261-1	141	DLM-1176-5	190	DLM-2140-1.2	141, 187	DLM-6909-1.2	165
DLM-261-1.2	141, 176	DLM-1177-1	190	DLM-2143-0.1	191	DLM-7136-1.2	179, 190
DLM-263-1	184	DLM-1177-5	190	DLM-2148-0.01	141	DLM-7141	200, 206
DLM-263-5	184	DLM-1178-0.1	191	DLM-2148-1.2	141, 177	DLM-7149	199, 205
DLM-268-5	185	DLM-1178-1	191	DLM-2204-0.1	141	DLM-7150-1.2	199, 206
DLM-271-5	187	DLM-1178-5	191	DLM-2204-1.2	141	DLM-7151-1.2	198, 204
DLM-277-0.1	188	DLM-1213-1	181	DLM-2205-0.01	184	DLM-7152	198, 202
DLM-277-1	188	DLM-1213-5	181	DLM-2205-0.1	184	DLM-7153	198, 203
DLM-294-5	188	DLM-1283-1	181	DLM-2206-0.1	185	DLM-7170-1.2	168
DLM-294-10	188	DLM-1283-5	181	DLM-2207-5	180, 186	DLM-7171-1.2	168
DLM-295-0.1	188	DLM-1287-1.2	166	DLM-2208-0.5	181	DLM-7172-1.2	168
DLM-295-0.25	188	DLM-1293-0.1	189	DLM-2208-1	181	DLM-7183	198, 204
DLM-296-0.1	188	DLM-1293-1	189	DLM-2209-0.5	181	DLM-7506	175
DLM-296-0.25	188	DLM-1294-1	189	DLM-2210-0.5	181	DLM-7658	182
DLM-299-10	180, 186	DLM-1322-1.2	141	DLM-2211-0.1	186	DLM-7663	191
DLM-313-5	191	DLM-1338-1.2	182	DLM-2218-A-1MG	164	DLM-7779-5	174, 188
DLM-337-1-B5	184	DLM-1342-5	181	DLM-2218-A-1.2	164	DLM-7982-5	174, 188
DLM-337-1-LB	184	DLM-1346-0.1	181	DLM-2276-0.05	185	DLM-8049-0.005	164
DLM-338-1	181	DLM-1346-1	181	DLM-2277-1	188	DLM-8085-1.2	165
DLM-338-5	181	DLM-1354-0.5	181	DLM-2279-0.1	190	DLM-8085-D-1.2	165
DLM-341-5	185	DLM-1359-0.1	186	DLM-2279-0.5	190	DLM-8221-1.2	166
DLM-365-1	141, 188	DLM-1359-0.5	175	DLM-2398-5	191	DLM-8252-1.2	174, 189
DLM-365-1.2	141, 188	DLM-1366-0.1	186	DLM-2438-1	181	DLM-8254-1.2	174, 189
DLM-365-5	141, 188	DLM-1366-1.2	170, 186	DLM-2438-5	181	DLM-8512-1.2	205
DLM-365-10	141, 188	DLM-1367-0.1	185	DLM-2607-0.1	164	DLM-8583	164
DLM-366-0.1	142	DLM-1367-0.25	185	DLM-2634-1	181	EB-5055	122
DLM-366-1	142	DLM-1367-1.2	170, 177, 185	DLM-2715-0.01	141	EB-5056	122
DLM-366-1.2	142	DLM-1368-0.1	183	DLM-2715-0.1	141	EB-5106	122
DLM-370-5	189	DLM-1368-0.25	183	DLM-2715-1.2	141	EB-5162	122
DLM-371-0.1	142, 189	DLM-1368-1.2	170, 176, 183	DLM-2724-1	181	EB-5439	122
DLM-371-1	142, 189	DLM-1369-0.1	182	DLM-2806-1.2	166	EBC-1741	15
DLM-371-1.2	142, 178, 189	DLM-1369-1.2	170, 176, 182	DLM-2829-0.01	198, 204	EBC-1743	15
DLM-380-1	190	DLM-1386-1	185	DLM-2845-1.2	141	EBC-2500	15
DLM-380-1.2	190, 207	DLM-1386-5	185	DLM-2852-1.2	141	EBC-2501	15
DLM-380-5	190	DLM-1522-1	188	DLM-2853-1.2	141	EBC-2503	15
DLM-382-1	142, 190	DLM-1528-1.2	142	DLM-2854-1.2	141	EBC-2504	15
DLM-382-1.2	142, 190	DLM-1541-1	189	DLM-2862-1.2	177, 187, 195,	EBC-2505	15
DLM-382-5	190	DLM-1592-1	186		197, 205	EBC-2507-A	15
DLM-398-5	183	DLM-1592-5	186	DLM-2878-0.01	198, 205	EBC-2509	15
DLM-398-10	183	DLM-1592-5x1	186	DLM-2943-1.2	177, 187	EC-1402-1.2	67
DLM-398-25	183	DLM-1607-1	141	DLM-2970-1.2	178, 199, 206	EC-1402-3	67
DLM-400-10	183	DLM-1629-0.1	186	DLM-3008-1.2	166	EC-1404-1.2	67
DLM-400-25	183	DLM-1629-0.25	186	DLM-3014-1	184	EC-1404-3	67, 178
DLM-401-5	183	DLM-1629-1.2	170, 177, 186	DLM-3014-5	184	EC-1405-1.2	68
DLM-411-5	187	DLM-1630-0.1	186, 170, 186	DLM-3016-5	184	EC-1405-3	68
DLM-423-1	181	DLM-1632-1.2	168	DLM-3017-5	184	EC-1406-1.2	69
DLM-423-5	181	DLM-1638-0.1	184	DLM-3022-1.2	185	EC-1406-3	69
DLM-450-1	142, 190	DLM-1638-0.25	184	DLM-3024-5	186	EC-1407-1.2	69
DLM-450-5	190	DLM-1663-1	182	DLM-3028-0.05	186		

Catalog #	Page	Catalog #	Page	Catalog #	Page	Catalog #	Page
EC-1407-3	69	EC-4939-2	85	EC-5380	76	ECN-2661	146
EC-1408-1.2	69	EC-4939-3	85	EC-5380-CS1	76	ECN-2662	146
EC-1408-3	69	EC-4939-4	85	EC-5380-CS2	76	ECN-2663	146
EC-1409-1.2	69	EC-4939-5	85	EC-5380-CS3	76	ECN-2664	146
EC-1409-3	69	EC-4939	85	EC-5380-CS4	76	ECN-2665	146
EC-1410-1.2	69	EC-4976	72	EC-5380-CS5	76	ECN-2666	146
EC-1410-3	69	EC-4976-0.2	72	EC-5380-CS6	76	ECN-2670	146
EC-1410-10	69	EC-4976-1	72	EC-5385	78	ECN-2671	146
EC-1411-1.2	68	EC-4976-2	72	EC-5385-CS1	78	ECN-2680	146
EC-1411-3	68	EC-4976-3	72	EC-5385-CS2	78	ECN-5102	147
EC-1412-1.2	68	EC-4976-3-4	72	EC-5385-CS3	78	ECN-5178	147
EC-1412-3	68	EC-4976-4	72	EC-5385-CS4	78	ECN-5240	146
EC-1413-1.2	67	EC-4976-5	72	EC-5385-CS5	78	ECN-5241	146
EC-1413-3	67	EC-4977-5	74	EC-5385-CS6	78	ECN-5250	146
EC-1414-1.2	68	EC-4977	74	EC-5396	89	ECN-5260	146
EC-1414-3	68	EC-4978	74	EC-5396-CS1	89	ECN-5261	146
EC-1415-1.2	68	EC-4979	74	EC-5396-CS2	89	ECN-5270	146
EC-1415-3	68	EC-4989	75	EC-5396-CS3	89	ECN-5280	146
EC-1416-1.2	69	EC-4986	109	EC-5396-CS4	89	ED-900	3, 178, 190
EC-1416-3	69, 178	EC-4987	110	EC-5396-CS5	89	ED-901	5, 178, 190
EC-1417-1.2	69	EC-4987/100	110	EC-5396-CS6	89	ED-901-A	5
EC-1417-3	69	EC-4990-1.2	67	EC-5397	91	ED-901-B	5
EC-1418-1.2	69	EC-4990-3	67	EC-5411	96	ED-901-C	5
EC-1418-3	69	EC-4995	90, 102	EC-5412	97	ED-901-D	5
EC-1419-1.2	69	EC-5000	91, 109	EC-5414	96	ED-905	4
EC-1419-3	69	EC-5033	79	EC-5414-CS1	96	ED-907	4
EC-1420-1.2	68	EC-5033-1	79	EC-5414-CS2	96	ED-908	57
EC-1420-3	68	EC-5033-2	79	EC-5414-CS3	96	ED-910	4
EC-1421-1.2	68	EC-5033-3	79	EC-5414-CS4	96	ED-911	3
EC-1421-3	68	EC-5033-4	79	EC-5414-CS5	96	ED-911-1	3
EC-1422-1.2	69	EC-5033-5	79	EC-5415	97	ED-911-200	3
EC-1422-3	69	EC-5044	87	EC-5418	83	ED-912	4
EC-1424-1.2	67	EC-5044-CS1	87	EC-5418-CS0.4H	83	ED-915	4
EC-1424-3	67	EC-5044-CS2	87	EC-5418-CS1H	83	ED-916	4
EC-1425-1.2	68	EC-5044-CS3	87	EC-5418-CS2H	83	ED-917	4
EC-1425-3	68, 178	EC-5044-CS4	87	EC-5418-CS3H	83	ED-922	5
EC-1426-1.2	68	EC-5044-CS5	87	EC-5418-CS4H	83	ED-924	5
EC-1426-3	68	EC-5045	90, 102	EC-5418-CS5H	83	ED-925	3
EC-1428-1.2	68	EC-5047	91, 104	EC-5418-CS6H	83	ED-926	4
EC-1428-3	68	EC-5048-1.2	68	EC-5419	84	ED-927	5
EC-1430	111	EC-5048-3	68	EC-5420	84	ED-929	5
EC-1434-1.2	67	EC-5085	99, 108	EC-5421-H	92	ED-932	5
EC-1434-3	67	EC-5087	98	EC-5421-H-E	92	ED-933	5
EC-1435-1.2	68	EC-5095-1.2	67	EC-5421-CS0.4H	92	ED-933-C	5
EC-1435-3	68	EC-5095-3	67	EC-5421-CS1H	92	ED-935-A	57
EC-1436-1.2	68	EC-5157-5	104	EC-5421-CS2H	92	ED-946	3
EC-1436-3	68	EC-5163	104	EC-5421-CS3H	92	ED-948	4
EC-4050-1.2	69	EC-5179	94, 110	EC-5421-CS4H	92	ED-950	5
EC-4050-3	69	EC-5180	91, 104	EC-5421-CS5H	92	ED-950-C	5
EC-4051-1.2	69	EC-5181-10X-1.2	91, 104	EC-5421-CS6H	92	ED-955	3
EC-4051-3	69	EC-5181	91, 104	EC-5422	93	ED-960	5
EC-4058	94, 103	EC-5186	86	EC-5423	93	ED-960-C	5
EC-4060	103	EC-5186-CS1	86	EC-5424	93	ED-961	5
EC-4070	103	EC-5186-CS2	86	EC-5433	106	ED-966	3
EC-4078-1.2	67	EC-5186-CS3	86	EC-5434	107	ED-969	5
EC-4078-3	67	EC-5186-CS4	86	EC-5448	95	ED-969-C	5
EC-4133	105	EC-5186-CS5	86	EC-5448-CS1	95	ED-971	5
EC-4163-1.2	67	EC-5315	88	EC-5448-CS2	95	ED-971-C	5
EC-4163-3	67	EC-5315-1	88	EC-5448-CS3	95	ED-972	3
EC-4165-1.2	67	EC-5315-2	88	EC-5448-CS4	95	ED-976	5
EC-4165-3	67	EC-5315-3	88	EC-5450	95	ED-980	5
EC-4167-1.2	69	EC-5315-4	88	EC-5453	95	ED-980-C	5
EC-4167-3	69	EC-5315-5	88	EC-7438	110	ED-981	3
EC-4187	103	EC-5323-H	80	ECB-5269	112	ED-996	3
EC-4188	103	EC-5323-H-E	80	ECB-5270	112	ED-998	53
EC-4189-A	97	EC-5323-CS0.4H	80	ECB-5271	112	ED-1440	12
EC-4199-1.2	69	EC-5323-CS1H	80	ECB-5291	112	ED-1440-1.2	12
EC-4199-3	69	EC-5323-CS2H	80	ECB-5292	112	ED-1441	12
EC-4900-1.2	69	EC-5323-CS3H	80	ECB-5293	112	ED-1441-1.2	12
EC-4900-3	69	EC-5323-CS4H	80	ECB-5294	112	ED-1450	12
EC-4901-1.2	67	EC-5323-CS5H	80	ECB-5339	112	ED-1450-1.2	12
EC-4901-3	67	EC-5323-CS6H	80	ECB-5387	113	ED-1451	12
EC-4902-1.2	68	EC-5324	81	ECB-5389	113	ED-1451-1.2	12
EC-4902-3	68	EC-5325-0.2X	81	ECB-5390	113	ED-1462	12
EC-4904-1.2	68	EC-5325-20X	81	ECB-5390-CS1	113	ED-1462-1.2	12
EC-4904-3	68	EC-5325	81	ECB-5390-CS2	113	ED-1465	12
EC-4905-1.2	69	EC-5326	81	ECB-5390-CS3	113	ED-1465-1.2	12
EC-4905-3	69	EC-5336-1.2	69	ECB-5390-CS4	113	ED-1466	12
EC-4908-1.2	67	EC-5336-3	69	ECB-5390-CS5	113	ED-1466-1.2	12
EC-4908-3	67	EC-5350-L	104, 210	ECN-1000	147	ED-1481	12
EC-4909-1.2	67	EC-5350	104, 210, 213	ECN-1013	147	ED-1481-1.2	12
EC-4909-3	67	EC-5360	82	ECN-1051	147	ED-1732-5	56
EC-4910-1.2	68	EC-5360-CS0.4H	82	ECN-2610	146	ED-1763	12
EC-4910-3	68	EC-5360-CS1H	82	ECN-2611	146	ED-1771	4
EC-4911-1.2	67	EC-5360-CS2H	82	ECN-2620	146	ED-1771-C	4
EC-4911-3	67	EC-5360-CS3H	82	ECN-2621	146	ED-1779	4
EC-4912-1.2	67	EC-5360-CS4H	82	ECN-2622	146	ED-1779-C	4
EC-4912-3	67	EC-5360-CS5H	82	ECN-2623	146	ED-2518	4
EC-4913-1.2	69	EC-5360-CS6H	82	ECN-2624	146	ED-2521	27
EC-4913-3	69	EC-5366	100	ECN-2630	146	ED-2522	27
EC-4914-1.2	67	EC-5367	101	ECN-2640	146	ED-2531	3
EC-4914-3	67	EC-5370	77, 78	ECN-2641	146	ED-2532	12
EC-4929-1.2	68	EC-5370-1/10X-10	77, 78	ECN-2642	146	ED-2534	12
EC-4929-3	68	EC-5371	77, 78	ECN-2643	146	ED-2534-1.2	12
EC-4935-A	91, 109	EC-5372	77	ECN-2650	146	ED-4061	5
EC-4935	91, 109	EC-5372-1/10X-10	77	ECN-2651	146	ED-4076	3
EC-4937	90, 102	EC-5379	78	ECN-2652	146	ED-4077	3
EC-4938	103	EC-5379-5-1.2	78	ECN-2653	146	ED-4090	4
EC-4939-1	85	EC-5379-1/10X-10	78	ECN-2660	146	ED-4135	55

Catalog #	Page	Catalog #	Page	Catalog #	Page	Catalog #	Page
ED-4140	33	EDF-5040-4	44	EDF-8999-4	21	EF-5259-1.2	13
ED-4169	3	EDF-5040-5	44	EDF-9999	19	EF-5263	14
ED-4170	3	EDF-5041	45	EDF-9999-0.1	19	EF-5263-1.2	14
ED-4198	3	EDF-5043	45	EDF-9999-0.2	19	EF-5266	13
ED-5004	25	EDF-5058	63	EDF-9999-0.5	19	EF-5266-1.2	13
ED-5073	63	EDF-5059	64	EDF-9999-1	19	EF-5384	61
ED-5089-1.2	12	EDF-5070	62	EDF-9999-2	19	EF-5384-4X	61
ED-5237	12	EDF-5070-1	62	EDF-9999-3	19	EF-5394	40
ED-5237-1.2	12	EDF-5070-2	62	EDF-9999-3-4	19	EF-5410	59
ED-5238	12	EDF-5070-3	62	EDF-9999-4	19	EF-9098-5	55
ED-5238-1.2	12	EDF-5070-4	62	EDF-9999-5	19	EF-9098-25	55
ED-5356	12	EDF-5070-5	62	EDF-9999-A	19	EM-1724-A	151
ED-5356-1.2	12	EDF-5071	63	EDF-9999-A-3	19	EM-1724-B	151
ED-5357	12	EDF-5074	64	EF-903	8	EM-1725-A	151
ED-5357-1.2	12	EDF-5086-A	39	EF-903-C	8	EM-1725-B	151
ED-9068-5	55	EDF-5174-40X	54	EF-904	6	EM-1726-A	151
ED-9068-25	55	EDF-5183	34	EF-918	8	EM-1726-B	151
EDF-957	51	EDF-5184	34	EF-920	6	EM-1727-A	151
EDF-1613-KIT	21	EDF-5185	43	EF-939	8	EM-1727-B	151
EDF-2519-A	26	EDF-5185-1	43	EF-942-50	8	EM-4018	153
EDF-2519-1	26	EDF-5185-2	43	EF-943-50	9	EM-4028	153
EDF-2519-2	26	EDF-5185-3	43	EF-944	8	EM-4173	152
EDF-2519-3	26	EDF-5185-4	43	EF-952	6	EM-4180	153
EDF-2519-4	26	EDF-5185-5	43	EF-953	8	EM-4181	152
EDF-2519-5	26	EDF-5187	29	EF-953-C	8	EM-4182	152
EDF-2520	27	EDF-5187-1	29	EF-953-M	8	EM-4183	152, 153
EDF-2523	27	EDF-5187-2	29	EF-954	8	EM-4185	153
EDF-2524	34	EDF-5187-3	29	EF-956	8	EM-4186	153
EDF-2525	34	EDF-5187-4	29	EF-956-C	8	EO-1439	117
EDF-2526	34	EDF-5187-5	29	EF-958	6	EO-1449	179
EDF-2530	63	EDF-5189	23	EF-962	9	EO-1469	179
EDF-2681	27	EDF-5192	54	EF-963	6	EO-4119	179
EDF-4023	34	EDF-5304	52	EF-964	9	EO-4930	117
EDF-4052	22	EDF-5314	42	EF-964-C	9	EO-4958-1.2	123
EDF-4052-1	22	EDF-5314-1	42	EF-965	9	EO-4982	117
EDF-4052-2	22	EDF-5314-2	42	EF-967	9	EO-4983	117
EDF-4052-3	22	EDF-5314-3	42	EF-967-C	9	EO-4984	117
EDF-4052-4	22	EDF-5314-4	42	EF-968	9	EO-4985	117
EDF-4052-5	22	EDF-5314-5	42	EF-973	9	EO-4993	117
EDF-4053	23	EDF-5338	40	EF-974	7	EO-4999	117, 183
EDF-4054	23	EDF-5369	35	EF-975	9	EO-5001	117
EDF-4055	23	EDF-5381	60	EF-982	9	EO-5002	117
EDF-4067-A	51	EDF-5381-CS1	60	EF-982-C	9	EO-5003	118
EDF-4067	51	EDF-5381-CS2	60	EF-983	7	EO-5030	123
EDF-4095	28	EDF-5381-CS3	60	EF-985	6	EO-5031	123
EDF-4095-1	28	EDF-5381-CS4	60	EF-986	6	EO-5034	117
EDF-4095-2	28	EDF-5381-CS5	60	EF-987	7	EO-5035	117
EDF-4095-3	28	EDF-5381-CS6	60	EF-988	7	EO-5060	123
EDF-4095-4	28	EDF-5381-CS7	60	EF-999	53	EO-5099	133
EDF-4095-5	28	EDF-5382	61	EF-1438	6	EO-5100	131
EDF-4096	28	EDF-5383	61	EF-1442	13	EO-5100-10X-0.5	131
EDF-4136-A	53	EDF-5383-4X	61	EF-1442-1.2	13	EO-5101	131
EDF-4137-A	53	EDF-5392	41	EF-1443	14	EO-5101-10X-1.2	131
EDF-4139	33	EDF-5392-1	41	EF-1443-1.2	14	EO-5103	131
EDF-4139-10	33	EDF-5392-2	41	EF-1452	13	EO-5104	130
EDF-4141	20	EDF-5392-3	41	EF-1452-1.2	13	EO-5104-CS1	130
EDF-4143	36	EDF-5392-4	41	EF-1453	14	EO-5104-CS2	130
EDF-4144	37	EDF-5392-5	41	EF-1453-1.2	14	EO-5104-CS3	130
EDF-4144-B	37	EDF-5392-6	41	EF-1454	13	EO-5104-CS4	130
EDF-4145	38	EDF-5393	40	EF-1454-1.2	13	EO-5104-CS5	130
EDF-4145-A	38	EDF-5395	40	EF-1455	14	EO-5104-CS6	130
EDF-4147	56	EDF-5407	58	EF-1455-1.2	14	EO-5113	132
EDF-4153	63	EDF-5407-1	58	EF-1463	13	EO-5113-7.5X-0.5	132
EDF-4153-10X	63	EDF-5407-2	58	EF-1463-1.2	13	EO-5161	117
EDF-4154	63	EDF-5407-3	58	EF-1464	14	EO-5165	117
EDF-4175	33	EDF-5407-4	58	EF-1464-1.2	14	EO-5169	135
EDF-4903	52	EDF-5407-5	58	EF-1486	14	EO-5240	118
EDF-4947	32	EDF-5408	59	EF-1486-1.2	14	EO-5241	118
EDF-4947-CS1	32	EDF-5409	59	EF-1731-S	56	EO-5242	118
EDF-4947-CS2	32	EDF-5429-6H	46	EF-1785	8	EO-5275	125
EDF-4947-CS3	32	EDF-5429-7H	46	EF-1789	8	EO-5276	125
EDF-4947-CS4	32	EDF-5429-CS1H	46	EF-1790	8	EO-5277	125
EDF-4947-CS5	32	EDF-5429-CS2H	46	EF-1793	8	EO-5278	125
EDF-4954	50	EDF-5429-CS3H	46	EF-1793-C	8	EO-5279	124
EDF-4955	50	EDF-5429-CS4H	46	EF-4016	6	EO-5279-CS1	124
EDF-4964-A	30	EDF-5429-CS5H	46	EF-4030	8	EO-5279-CS2	124
EDF-4965-A	30	EDF-5429-CS6H	46	EF-4031	8	EO-5279-CS3	124
EDF-4967	30	EDF-5429-CS7H	46	EF-4134	55	EO-5279-CS4	124
EDF-4967-A	30	EDF-5429-CS8H	46	EF-4138	33	EO-5279-CS5	124
EDF-4974-A	30	EDF-5430	47	EF-4138-10	33	EO-5319-A	134
EDF-5005	25	EDF-5431	47	EF-4168	6	EO-5319-A-CS1	134
EDF-5006	24	EDF-5431-20X	47	EF-4171	6	EO-5319-A-CS2	134
EDF-5006-1	24	EDF-5443	48	EF-4172	6	EO-5319-A-CS3	134
EDF-5006-2	24	EDF-5443-CS1H	48	EF-5009	6	EO-5319-A-CS4	134
EDF-5006-3	24	EDF-5443-CS2H	48	EF-5042	45	EO-5319-A-CS5	134
EDF-5006-4	24	EDF-5443-CS3H	48	EF-5050	6	EO-5319-A-CS6	134
EDF-5006-5	24	EDF-5443-CS4H	48	EF-5052	6	EO-5319-A-CS7	134
EDF-5008-50	25	EDF-5443-CS5H	48	EF-5054	7	EO-5319-A-CS8	134
EDF-5008	25	EDF-5443-CS6H	48	EF-5075	14	EO-5319-A-CS9	134
EDF-5032	31	EDF-5444	47	EF-5076	13	EO-5319-A-CS10	134
EDF-5032-1	31	EDF-5444-A	47	EF-5077	14	EO-5320-A	135
EDF-5032-2	31	EDF-5462	35	EF-5078	13	EO-5337	118
EDF-5032-3	31	EDF-5463	35	EF-5079	14	EO-5355	118
EDF-5032-4	31	EDF-5999	20	EF-5080	13	EO-5362	118
EDF-5032-5	31	EDF-6999	20	EF-5081	14	EO-5376	117
EDF-5040	44	EDF-6999-10X	20	EF-5082	13	EO-5377	118
EDF-5040-1	44	EDF-7999	21	EF-5082-1.2	13	EO-5388	113
EDF-5040-2	44	EDF-7999-10X	21	EF-5188	45	EO-5402	126
EDF-5040-3	44	EDF-8999	21	EF-5259	13	EO-5402-CS1	126

Catalog #	Page	Catalog #	Page	Catalog #	Page	Catalog #	Page
EO-5402-CS2	126	ES-5348-CS3	212	JR-F10-25	10	MSCB-4015	114
EO-5402-CS3	126	ES-5348-CS4	212	JR-F11-25	10	MSCB-4027	114
EO-5402-CS4	126	ES-5348-CS5	212	JR-F12-25	10	MSCB-4043	114
EO-5402-CS5	126	ES-5348-CS6	212	JR-F13-25	10	MSCB-4044	114
EO-5403	127	ES-5349	213	JR-F14-25	10	MSCB-4045	114
EO-5404	127	ES-5349-L	213	JR-F15-25	10	N-922	167
EO-5405	127	ES-5352-L	211	JR-F16-25	10	N-923	167
EO-5413	117	ES-5353	211	JR-F17-25	10	NLM-7647-5	174, 188
EO-5425	128	ES-5364	218	JR-F18-25	10	OHBDE-5190-1.2	123
EO-5425-CS1	128	ES-5364-CS1	218	JR-F19-25	10	OHBDE-5191-1.2	123
EO-5425-CS2	128	ES-5364-CS2	218	JR-F20-25	10	OHBDE-5206-1.2	123
EO-5425-CS3	128	ES-5364-CS3	218	JR-F21-25	10	OHBDE-5212-1.2	123
EO-5426	129	ES-5364-CS4	218	JR-F22-25	10	OHBDE-5214-1.2	123
EO-5427	129	ES-5364-CS5	218	JR-F23-25	10	OHBDE-5228-1.2	123
EO-5428	129	ES-5364-CS6	218	JR-F24-25	10	OHCBS-5114-1.2	114
ERC-034	198, 203, 220	ES-5364-CS7	218	JR-F25-25	10	OHCBS-5115-1.2	114
ERD-083	198, 220	ES-5364-CS8	218	JR-F26-25	10	OHCBS-5117-1.2	114
ERD-085	220	ES-5364-CS9	218	JR-F27-25	10	OHCBS-5118-1.2	114
ERD-086	198, 220	ES-5364-CS10	218	JR-F28-25	10	OHCBS-5124-1.2	114
ERD-117	198, 204, 220	ES-5386	144	JR-F29-25	10	OLM-7310-1.2	169, 189
ERD-118	198, 204, 220	ES-5399	213	JR-F30-25	10	OLM-8283-1.2	169
ERD-119	198, 204, 220	ES-5399-10X-0.5	213	JR-F31-25	10	PBB-77-CS	122
ERD-121	198, 204, 220	ES-5400	213	JR-F32-25	10	PBB-126	122
ERD-155	198, 204, 220	ES-5401	151	JR-F33-25	10	PBB-153-CS	122
ERE-024	198, 205, 220	ES-5406	151	JR-F34-25	10	PBB-157-CS	122
ERI-015	199, 205, 220	ES-5438	145	JR-F35-25	10	PBB-209-CS	122
ERI-017	220	ES-5464	208	JR-F36-25	10	PCB-1-CS	70
ERI-026	199, 205, 220	ES-5464-CS1	208	JR-F37-25	10	PCB-3-CS	70
ERM-038	199, 206, 221	ES-5464-CS2	208	JR-F38-25	10	PCB-4-CS	70
ERP-083	199, 221	ES-5464-CS3	208	JR-F39-25	10	PCB-8-CS	70
ERQ-003	221	ES-5464-CS4	208	JR-F40-25	10	PCB-9-CS	70
ERT-052	221	ES-5464-CS5	208	JR-F41-25	10	PCB-10-CS	70
ERT-053	221	ES-5464-CS6	208	JR-F42-25	10	PCB-11-CS	70
ERT-054	221	ES-5465	209	JR-F43-25	10	PCB-12-CS	70
ES-2002	156, 159	ES-5465-SX	209	JR-F44-25	10	PCB-15-CS	70
ES-2003	157, 159	ES-5466	210	JR-F45-25	10	PCB-18-CS	70
ES-2004	157, 159	ES-5467	210	JR-F46-25	10	PCB-19-CS	70
ES-2006	158, 159	ET-4025	147	JR-F47-25	10	PCB-28-CS	70
ES-2007-A	158, 159	F-918	166	JR-F48-25	10	PCB-30-CS	70
ES-2008	158, 159	F-919	166	JR-F49-25	10	PCB-31-CS	70
ES-2022-A	156, 159	I-902	166	JR-F50-25	10	PCB-32-CS	70
ES-2025-A	157, 159	JR-D01-25	11	JR-F51-25	10	PCB-33-CS	70
ES-2026	157	JR-D02-25	11	JR-F52-25	10	PCB-35-CS	70
ES-2032	158, 159	JR-D03-25	11	JR-F53-25	10	PCB-37-CS	70
ES-2033	159	JR-D04-25	11	JR-F54-25	10	PCB-38-CS	70
ES-2036	156, 159	JR-D05-25	11	JR-F55-25	10	PCB-39-CS	70
ES-2041-A	157	JR-D06-25	11	JR-F56-25	10	PCB-44-CS	70
ES-2042	159	JR-D07-25	11	JR-F57-25	10	PCB-47-CS	70
ES-2043	145	JR-D08-25	11	JR-F58-25	10	PCB-49-CS	70
ES-2044	144	JR-D09-25	11	JR-F59-25	10	PCB-52-CS	70
ES-2528	144	JR-D10-25	11	JR-F60-25	10	PCB-54-CS	70
ES-4087	144	JR-D11-25	11	JR-F61-25	10	PCB-57-CS	70
ES-4157	172	JR-D12-25	11	JR-F62-25	10	PCB-60-CS	70
ES-5019-A	216	JR-D13-25	11	JR-F63-25	10	PCB-66-CS	70
ES-5019-A-CS1-8	216	JR-D14-25	11	JR-F64-25	10	PCB-70-CS	70
ES-5019-A-CS9-10	216	JR-D15-25	11	JR-F65-25	10	PCB-74-CS	70
ES-5020	216	JR-D16-25	11	JR-F66-25	10	PCB-77-CS	70
ES-5020-1ML	216	JR-D17-25	11	JR-F67-25	10	PCB-78-CS	70
ES-5021	217	JR-D18-25	11	JR-F68-25	10	PCB-79-CS	70
ES-5037	154	JR-D19-25	11	JR-F69-25	10	PCB-80-CS	70
ES-5038	154	JR-D20-25	11	JR-F70-25	10	PCB-81-CS	70
ES-5038-1	154	JR-D21-25	11	JR-F71-25	10	PCB-85-CS	70
ES-5038-2	154	JR-D22-25	11	JR-F72-25	10	PCB-87-CS	70
ES-5038-10X	154	JR-D23-25	11	JR-F73-25	10	PCB-95-CS	70
ES-5164	145	JR-D24-25	11	JR-F74-25	10	PCB-97-CS	70
ES-5177-5X10	217	JR-D25-25	11	JR-F75-25	10	PCB-99-CS	70
ES-5177-500X-N-0.5	217	JR-D26-25	11	JR-F76-25	10	PCB-101-CS	70
ES-5261-1.2	217	JR-D27-25	11	JR-F77-25	10	PCB-104-CS	70
ES-5286	155	JR-D28-25	11	JR-F78-25	10	PCB-105-CS	70
ES-5286-10X	155	JR-D29-25	11	JR-F79-25	10	PCB-110-CS	70
ES-5287	155	JR-D30-25	11	JR-F80-25	10	PCB-111-CS	70
ES-5287-10X	155	JR-D31-25	11	JR-F81-25	10	PCB-112-CS	70
ES-5288	155	JR-D32-25	11	JR-F82-25	10	PCB-114-CS	70
ES-5288-10X	155	JR-D33-25	11	JR-F83-25	10	PCB-118-CS	70
ES-5321	38, 216	JR-D34-25	11	JR-F84-25	10	PCB-123-CS	70
ES-5341	214	JR-D35-25	11	JR-F85-25	10	PCB-126-CS	70
ES-5341-CS1	214	JR-D36-25	11	JR-F86-25	10	PCB-127-CS	70
ES-5341-CS2	214	JR-D37-25	11	JR-F87-25	10	PCB-128-CS	70
ES-5341-CS3	214	JR-D38-25	11	JR-HPCDF-KIT	11	PCB-138-CS	70
ES-5341-CS4	214	JR-D39-25	11	JR-HXCDD-KIT	11	PCB-141-CS	70
ES-5341-CS5	214	JR-D40-25	11	JR-HXCDF-KIT	11	PCB-146-CS	70
ES-5342	215	JR-D41-25	11	JR-PCDD/F-KIT	11	PCB-149-CS	70
ES-5343	215	JR-D42-25	11	JR-PECDD-KIT	11	PCB-151-CS	71
ES-5343-CS1	215	JR-D43-25	11	JR-PECDF-KIT	11	PCB-153-CS	71
ES-5343-CS2	215	JR-D44-25	11	JR-TCDD-KIT	11	PCB-155-CS	71
ES-5343-CS3	215	JR-D45-25	11	JR-TCDF-KIT	11	PCB-156-CS	71
ES-5343-CS4	215	JR-D46-25	11	L-901	166	PCB-157-CS	71
ES-5343-CS5	215	JR-D47-25	11	L-902	166	PCB-158-CS	71
ES-5344	215	JR-D48-25	11	MEOBDE-5153-1.2	123	PCB-159-CS	71
ES-5344-50X-0.5	215	JR-D49-25	11	MEOBDE-5205-1.2	123	PCB-162-CS	71
ES-5345	211	JR-F01-25	10	MEOCB-5109-1.2	114	PCB-167-CS	71
ES-5345-CS1	211	JR-F02-25	10	MEOCB-5111-1.2	114	PCB-169-CS	71
ES-5345-CS2	211	JR-F03-25	10	MEOCB-5135-1.2	114	PCB-170-CS	71
ES-5345-CS3	211	JR-F04-25	10	MSCB-4007	114	PCB-172-CS	71
ES-5345-CS4	211	JR-F05-25	10	MSCB-4008	114	PCB-174-CS	71
ES-5345-CS5	211	JR-F06-25	10	MSCB-4009	114	PCB-177-CS	71
ES-5348	212	JR-F07-25	10	MSCB-4010	114	PCB-178-CS	71
ES-5348-CS1	212	JR-F08-25	10	MSCB-4012	114	PCB-180-CS	71
ES-5348-CS2	212	JR-F09-25	10	MSCB-4013	114	PCB-187-CS	71



Catalog #	Page	Catalog #	Page	Catalog #	Page	Catalog #	Page
PCB-188-CS	71	ULM-4521-SA-5X-1.2	172	ULM-7346-1.2	201, 202	ULM-8092-1.2	186
PCB-189-CS	71	ULM-4559-1.2	172, 178	ULM-7375-2X1.2	123	ULM-8096-1.2	176, 200, 202
PCB-194-CS	71	ULM-4583-1.2	171	ULM-7378	167, 189	ULM-8122-1.2	177, 199, 205
PCB-195-CS	71	ULM-4585-1.2	171	ULM-7391-1.2	200, 205	ULM-8133-0.1MG	165
PCB-196-CS	71	ULM-4593-1.2	171	ULM-7393-1.2	171	ULM-8134-0.1MG	164
PCB-198-CS	71	ULM-4617-1.2	198, 204, 220	ULM-7394-1.2	171	ULM-8135-0.1MG	164
PCB-199-CS	71	ULM-4651-1.2	171	ULM-7395-1.2	171	ULM-8137-0.1MG	165
PCB-201-CS	71	ULM-4652-1.2	171	ULM-7396-1.2	169, 189, 206	ULM-8144-1.2	178, 199, 206
PCB-202-CS	71	ULM-4662-1.2	171	ULM-7403-1.2	179, 187	ULM-8149-1.2	170
PCB-203-CS	71	ULM-4663-1.2	171	ULM-7412-1.2	143, 176, 182	ULM-8155-25	143
PCB-205-CS	71	ULM-4688-1.2	172	ULM-7413-1.2	143, 176, 182	ULM-8156-1.2	168
PCB-206-CS	71	ULM-4690-1.2	172	ULM-7414-1.2	143, 187	ULM-8157-1.2	168
PCB-208-CS	71	ULM-4834-1.2	123	ULM-7416-1.2	143	ULM-8218	164
PCB-209-CS	71	ULM-4835-1.2	123	ULM-7417-1.2	143, 190	ULM-8219-1.2	165
PCBB-5272-CS	112	ULM-4836-1.2	123	ULM-7418-1.2	204	ULM-8225-1.2	166
PCBB-5273	112	ULM-6074-60	188	ULM-7419-1.2	200, 202	ULM-8233-1.2	170
PCBB-5274	112	ULM-6084-1.2	175	ULM-7420-1.2	175, 203	ULM-8235-1.2	168
PCBB-5295	112	ULM-6089	198, 204, 220	ULM-7421-1.2	143, 187	ULM-8250-1.2	163
PCBB-5296	112	ULM-6091-1.2	198, 220	ULM-7422-1.2	143, 182	ULM-8251-1.2	163, 179
PCBB-5297	112	ULM-6129-1.2	170, 186	ULM-7423-1.2	143	ULM-8253-1.2	174, 189
PCBB-5298	112	ULM-6130-1.2	177, 187, 197, 205	ULM-7424-1.2	143, 176	ULM-8255-1.2	174, 189
PCBB-5340-CS	112	ULM-6132-1.2	182, 196, 202	ULM-7425-1.2	143, 188	ULM-8261-0.1MG	165
ULM-2-4X25	188	ULM-6132-SM-1.2	182, 196, 202	ULM-7426-1.2	143	ULM-8262-0.1MG	165
ULM-1226-0.01	143	ULM-6133-1.2	182, 196, 202	ULM-7427-1.2	143, 178, 189	ULM-8263-0.1MG	165
ULM-1227-0.01	143	ULM-6133-SM-1.2	182, 196, 202	ULM-7428-1.2	143, 190	ULM-8268-1.2	143
ULM-1253-1.2	143	ULM-6134-1.2	176, 185, 196, 203	ULM-7430-1.2	147	ULM-8269-1.2	143
ULM-1253-25	143	ULM-6135-1.2	176, 185, 196, 203	ULM-7432-1.2	206	ULM-8270-1.2	143
ULM-1700-0.1	186	ULM-6137-1.2	185, 196, 203	ULM-7433-1.2	170, 177	ULM-8287-1.2	163
ULM-1701-0.1	184	ULM-6139-1.2	178, 195, 197, 206	ULM-7434-1.2	170, 177	ULM-8303-1.2	163, 179
ULM-1702-0.1	185	ULM-6139-SM-1.2	195, 197, 206	ULM-7436-1.2	177	ULM-8317-1.2	201, 205
ULM-1703-0.1	191	ULM-6148-1.2	170	ULM-7440-1.2	177, 197, 206	ULM-8318-1.2	201, 202
ULM-1704-0.1	190	ULM-6149-1.2	170	ULM-7441-1.2	182, 195, 196, 202	ULM-8319-1.2	201, 204
ULM-1705-0.1	184	ULM-6174-1.2	170	ULM-7442-1.2	177, 195, 197, 205	ULM-8320-1.2	201, 203
ULM-1708-0.1	190	ULM-6181-1.2	143	ULM-7443-1.2	176, 195, 196, 202	ULM-8321-1.2	201, 204
ULM-1709-1.2	189	ULM-6195-1.2	175	ULM-7444-1.2	177, 187, 195, 197, 205	ULM-8322-1.2	201, 203
ULM-1710-0.5	183	ULM-6205-1.2	202			ULM-8323-1.2	168, 201, 203
ULM-1710-1.2	183	ULM-6235-1.2	143	ULM-7445-1.2	177, 195, 197, 206	ULM-8342-1.2	173
ULM-1711-0.01	185	ULM-6236-1.2	123	ULM-7446-1.2	143	ULM-8349-1.2	166
ULM-1711-1.2	4, 185	ULM-6241-1.2	170, 176	ULM-7447-1.2	177, 187, 195, 197, 205	ULM-8350-1.2	166
ULM-1712-0.05	185	ULM-6251-1.2	176, 185, 196, 203			ULM-8360-1.2	172
ULM-1712-1.2	8, 185	ULM-6560-1.2	172	ULM-7448-1.2	177, 187, 195, 197, 205	ULM-8361-1.2	172
ULM-2301-0.1	196, 197, 202, 205	ULM-6566-1.2	170			ULM-8362-1.2	172
ULM-2301-1.2	76, 195, 196, 197, 202, 205	ULM-6576-1.2	143	ULM-7449-1.2	164	ULM-8363-1.2	172
		ULM-6575-S-10X-1.2	198, 204	ULM-7450-1.2	184, 196, 203	ULM-8371-1.2	167
ULM-2323-4X25	189	ULM-6581-1.2	166	ULM-7451-1.2	173	ULM-8451-1.2	169
ULM-2411-25	143	ULM-6637-S	174, 189	ULM-7453-1.2	200, 203	ULM-8454-1.2	199, 206
ULM-2412-0.1	143	ULM-6671-1.2	143	ULM-7454-1.2	200, 203	ULM-8464-1.2	143
ULM-2415-0.1	143	ULM-6687-1.2	167, 168	ULM-7489-1.2	198, 203	ULM-8480	183
ULM-2415-1.2	143, 176	ULM-6694-1.2	198, 205	ULM-7525-1.2	175	ULM-8513-1.2	205
ULM-2415-1.2	182	ULM-6697-1.2	171	ULM-7527-1.2	167	ULM-8526-1.2	178, 200, 206
ULM-2416-0.1	143	ULM-6721-1.2	168	ULM-7567-1.2	199, 206	ULM-8527-1.2	178, 200, 206
ULM-2416-1.2	143, 176	ULM-6778-1.2	175	ULM-7595-1.2	123	ULM-8531-1.2	163
ULM-2417-0.1	143	ULM-6781-1.2	200, 206	ULM-7597-1.2	175, 178	ULM-8533-1.2	166
ULM-2418-0.1	143, 143	ULM-6781-SA-1.2	200, 206	ULM-7598-1.2	175	ULM-8579-1.2	199, 206
ULM-2418-1.2	182	ULM-6822-1.2	175	ULM-7599-1.2	175	ULM-8590-1.2	168
ULM-2419-1.2	195	ULM-6848-1.2	171	ULM-7600-1.2	175	ULM-8638	200
ULM-2419-25	184, 196, 202	ULM-6875-1.2	200, 202	ULM-7603-1.2	175	ULM-8639-1.2	200, 206
ULM-2420-1.2	195	ULM-6876-1.2	198, 205	ULM-7605-1.2	175	ULM-8654-1.2	176, 179, 183
ULM-2420-25	184, 196, 202	ULM-6894-1.2	175, 178, 189	ULM-7606-1.2	123, 179	ULM-8665-1.2	178, 189, 201
ULM-2421-0.1	184	ULM-6911-1.2	169, 179	ULM-7607-1.2	175	ULM-8717-1.2	143, 176, 182
ULM-2422-0.1	143, 185	ULM-6917-1.2	175	ULM-7629-1.2	166	ULM-8734-1.2	123, 178, 179
ULM-2422-1.2	143, 185	ULM-6918-1.2	175	ULM-7653-1.2	166	ULM-8767-1.2	178, 189, 201
ULM-2423-1.2	143	ULM-6922-1.2	175	ULM-7709-1.2	167	ULM-8768-1.2	178, 189, 201
ULM-2424-0.1	187, 197, 205	ULM-6935-1.2	163, 169	ULM-7710-1.2	167	ULM-8769-1.2	178, 189, 201
ULM-2424-1.2	177, 187, 195, 197, 205	ULM-7106-1.2	176, 179, 183	ULM-7777-1.2	123	ULM-8785-1.2	170
		ULM-7146-1.2	172	ULM-7780-S	174, 188		
ULM-2425-0.1	187, 197, 205	ULM-7147-1.2	172	ULM-7823-A-1.2	164		
ULM-2425-1.2	177, 187, 195, 197, 205	ULM-7168-1.2	174, 174	ULM-7828-1.2	178, 189, 201		
		ULM-7187-1.2	169	ULM-7829-1.2	178, 189, 201		
ULM-2426-1.2	143	ULM-7188-1.2	168	ULM-7830-1.2	178, 189, 201		
ULM-2426-25	143	ULM-7189-1.2	168	ULM-7840-1.2	186		
ULM-2427-0.1	197, 206	ULM-7190-1.2	168	ULM-7869-1.2	187, 195, 197, 205		
ULM-2427-1.2	177, 195, 197, 206	ULM-7207-1.2	174, 174	ULM-7870-1.2	188		
ULM-2427-SM-1.2	195, 197, 206	ULM-7211-1.2	164	ULM-7884-1.2	163		
ULM-2428-0.1	190	ULM-7212-1.2	164	ULM-7886-1.2	123		
ULM-2429-0.1	190	ULM-7213-1.2	178, 207	ULM-7887-1.2	123		
ULM-2430-0.1	190	ULM-7214-1.2	179	ULM-7893-1.2	201, 207		
ULM-3693	183	ULM-7215-1.2	179	ULM-7919-1.2	171		
ULM-3845-S	180	ULM-7216-1.2	184, 196, 203	ULM-7921-1.2	164		
ULM-3847-S	180	ULM-7217-1.2	198, 204	ULM-7921-D-1.2	164		
ULM-3849-1.2	180	ULM-7219-1.2	174, 188	ULM-7968-1.2	163		
ULM-3850-1.2	180	ULM-7220-1.2	167	ULM-7969-1	180		
ULM-3883-1.2	143	ULM-7229-1.2	177, 195, 197, 206	ULM-7972-1.2	198, 204		
ULM-3884-1.2	143	ULM-7230-1.2	177, 186, 195, 197, 204	ULM-7975-1.2	163, 204		
ULM-3884-25	143			ULM-7975-D-1.2	163, 204		
ULM-3885-1.2	143	ULM-7232-1.2	182, 196, 202	ULM-7984-1.2	174, 188		
ULM-3888-S	180	ULM-7233-1.2	182, 196, 202	ULM-7989-A-1.2	167		
ULM-3889-S	180	ULM-7234-1.2	175, 178, 178	ULM-7990-1.2	187, 195, 197, 205		
ULM-3890-1.2	180	ULM-7235-1.2	201, 202	ULM-7998-1.2	168		
ULM-3891-1.2	177, 180	ULM-7236-1.2	207	ULM-7999-1.2	169, 191		
ULM-3892-1.2	180, 188	ULM-7242-1.2	167, 207	ULM-8000-1.2	168		
ULM-3893-S	180	ULM-7263-1.2	198, 202	ULM-8001-1.2	201		
ULM-3978-1.2	143	ULM-7271-1.2	143	ULM-8009-1.2	163, 179		
ULM-4210-1.2	175	ULM-7275-1.2	166	ULM-8061-1.2	179, 190		
ULM-4322-1.2	167	ULM-7303-1.2	200, 204	ULM-8066-1.2	173		
ULM-4459-1.2	176	ULM-7309-1.2	174	ULM-8067-1.2	173		
ULM-4520-1.2	172, 178	ULM-7312-1.2	169, 189	ULM-8081-1.2	165		
ULM-4520-SA-5X-1.2	172	ULM-7313-1.2	204	ULM-8081-D-1.2	165		
ULM-4521-1.2	172	ULM-7314-1.2	177, 206	ULM-8084-1.2	173		



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