CIL

Cambridge Isotope Laboratories, Inc.

Environmental Contaminant Standards

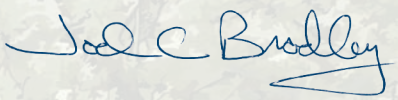
Solutions for a Greener World

August 2010 marks the beginning of CIL's 30th 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 ^{13}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.

General Information

Dioxin and Furan Individual Standards 1

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

PCB Standards and Standard Mixtures 65

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 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/Cerilliant 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 Cerilliant have dedicated our programs to providing the highest quality environmental standards available anywhere in the world. Each standard provided by CIL and Cerilliant 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.

Cerilliant's quality system is rigorous, thorough, and incorporates constant improvement. Originally certified in 1997 by BSI to the ISO 9001 standard, Cerilliant has maintained their certification through the years and recently acquired the ISO 9001:2008 standard. In November 2009, Cerilliant 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 ^{13}C Standards for all 17 Toxic PCDD and PCDF Isomers
- Conduct a round-robin study to produce consensus values for all 17 Toxic PCCD and PCDF Isomers (1987)
- Offer PCDD/PCDF PE Standards for Soil and Fish
- Develop ^{13}C PCB Standards
- Produce unlabeled "Certified Standards" for PCBs
- Produce ^{13}C PAH Standards
- Produce ^{13}C Polybrominated Dioxins and Furans
- Produce ^{13}C Polybrominated Diphenyl Ether Standards
- Produce ^{13}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
- $^{13}C_6$-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 (North America)
intlsales@isotope.com (International)

E-commerce: Visit 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 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; or 1-978-749-8000 (International) or 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, 2nd day, or 3rd 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.

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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.

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 Persistant 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
Pacifichem	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 for further information regarding conferences and special events or contact our Marketing department at 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

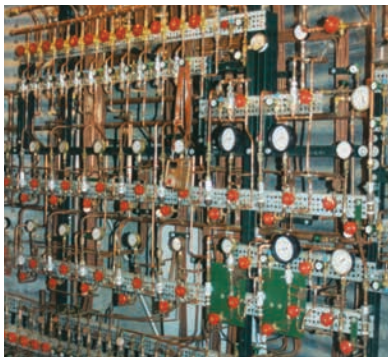
CIL Facilities

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}C and ^{18}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}C separation facility, which has been in continuous operation for over 20 years, and more recently CIL has constructed the world's largest ^{18}O separation facility. CIL's isotope separation facility, located in Xenia, Ohio provides customers with a dependable, secure supply of stable isotope starting materials.



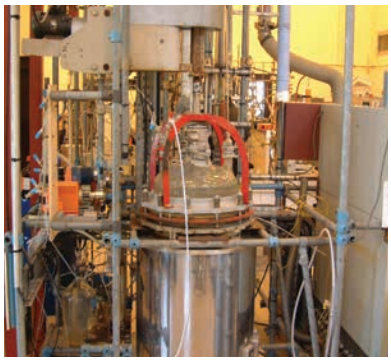
CARBON-13 ISOTOPE SEPARATION FACILITY

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

OXYGEN-18 ISOTOPE SEPARATION FACILITY

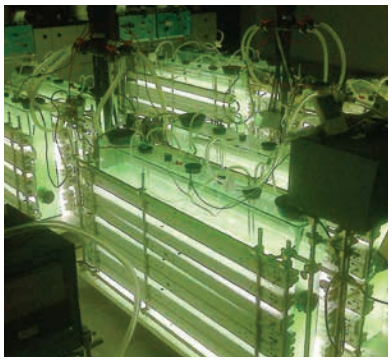
In 2000, CIL responded to the worldwide shortage of ^{18}O water by embarking on the construction of the world's largest ^{18}O isotope separation facility. CIL is now the world's leading producer of ^{18}O water with an annual production capacity of 250 kg. CIL's ^{18}O water is used in Positron Emission 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 ± 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}C-labeled atoms, 98% for Deuterium-labeled atoms, and 96% for ^{37}Cl-labeled atoms, unless otherwise specified. Other Isotopic enrichments such as ^{15}N and ^{18}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-$^{13}C_6$, 99%) is not 99% $^{13}C_6$, and 1% $^{12}C_6$. Each carbon atom position (1,2,3,4,5 & 6) has a 99% chance of being ^{13}C-labeled, and a 1% chance of being ^{12}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 $\sim 10^{-10}\%$ will have the molecular mass of $^{12}C_6$-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:	Outside of Continental USA:
1-800-424-9300	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

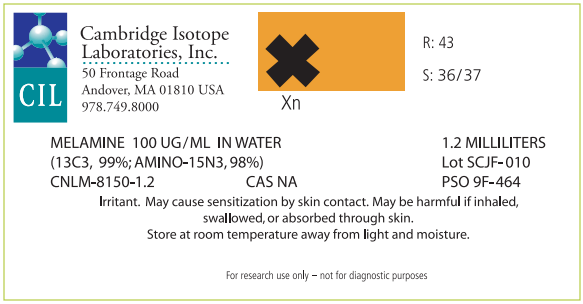
CIL has implemented packaging and labeling procedures for all products to include the Hazard Symbols and Risk and Safety Codes. These labels comply with the EU REACH, DOT, and IATA requirements for the classification, packaging and Labeling of dangerous preparations. CIL Material Safety Data Sheets contain 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.

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

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 ^{13}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 ^{13}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

Centers for Disease Control
Atlanta, GA

Dow Chemical Company
Midland, MI

Ontario Ministry of the Environment
Rexdale, Ontario, Canada

Midwest Research Institute
Kansas City, MO

Monsanto Company
St. Louis, MO

Triangle Labs
Research Triangle Park, NC

Twin City Testing
St. Paul, MN

Unlabeled Chlorodioxin/Furan Standards for Elution Profiling

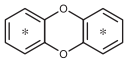
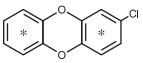
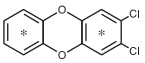
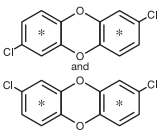
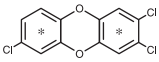
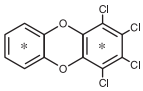
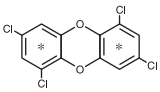
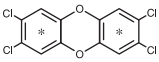
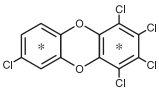
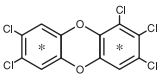
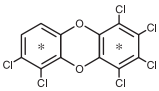
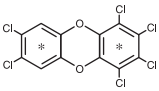
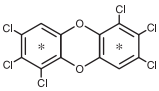
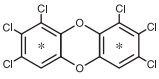
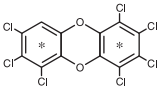
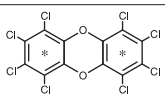
CIL introduces the first commercially available set of all 136 Tetra-Octa chlorinated dioxin and furan congeners. These qualitative standards are available as ~25ng/mL solutions in Nonane and are used primarily for elution profiling and peak identification. Homolog group kits are available, as is a suite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

ISO Accreditation

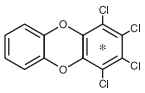
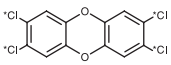
Adding to our list of firsts in the field of dioxin and furan reference standards, CIL is pleased to announce the availability of the first dioxin and furan standards manufactured under **ISO/IEC 17025 and ISO Guide 34 accreditation**.

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.

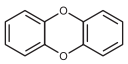
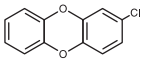
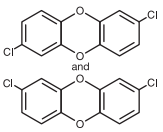
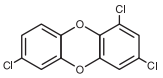
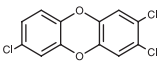
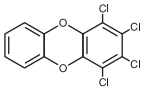
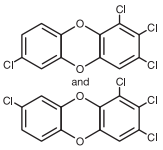
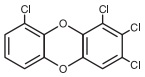
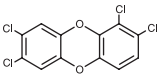
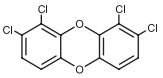
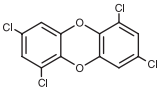
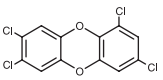
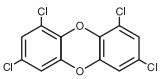
$^{13}C_{12}$ Labeled Chlorodioxin Standards

Catalog #	Compound		Concentration	Amount
CLM-1544-1.2	**Dibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4169	**2-Monochlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4170	**2,3-Dichlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-925	**2,7-Dichlorodibenzo-*p*-dioxin/ 2,8-Dichlorodibenzo-*p*-dioxin isomer pair ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-2531	**2,3,7-Trichlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-911	**1,2,3,4-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,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	**1,3,6,8-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-900	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-4076	**1,2,3,4,7-Pentachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-955	**1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-4077	**1,2,3,4,6,7-Hexachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		5 ± 0.5 µg/mL in Nonane	1.2 mL
ED-946	**1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-966	**1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in 80% Nonane/20% Toluene	1.2 mL
ED-996	**1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in 80% Nonane/20% Toluene	1.2 mL
ED-972	**1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
ED-981	**Octachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		10 ± 0.5 µg/mL in Nonane	4 x 1.2 mL

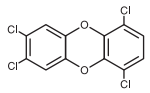
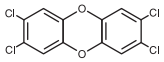
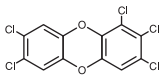
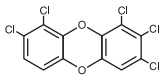
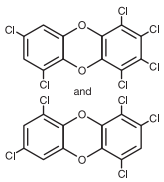
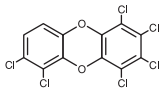
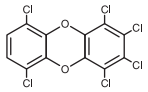
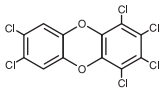
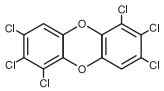
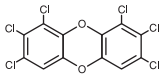
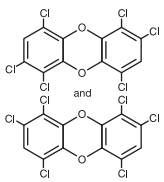
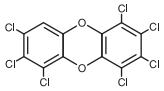
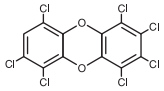
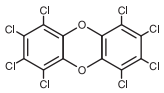
$^{13}C_6$ and $^{37}Cl_4$ Labeled Chlorodioxin Standards

Catalog #	Compound		Concentration	Amount
ED-910	**1,2,3,4-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_6$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-907	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin ($^{37}Cl_4$,96%)**		50 ± 5 µg/mL in Nonane	1.2 mL

Unlabeled Chlorodioxin Standards

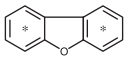
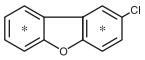
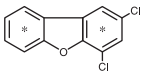
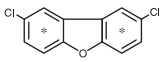
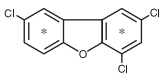
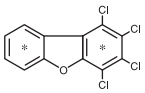
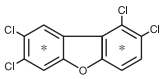
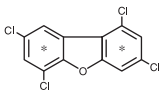
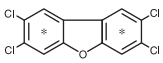
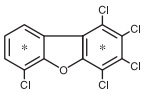
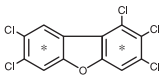
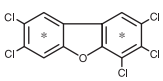
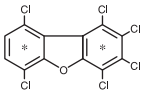
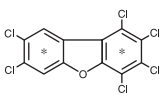
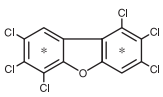
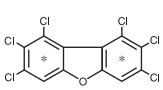
ULM-1711-1.2	**Dibenzo--dioxin**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-1771 ED-1771-C	**2-Monochlorodibenzo--dioxin**		50 ± 5 µg/mL in Nonane Crystalline solid	1.2 mL 1 mg
ED-926	**2,7-Dichlorodibenzo--dioxin/ 2,8-Dichlorodibenzo--dioxin Isomer Pair**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-4090	**1,3,7-Trichlorodibenzo--dioxin**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

Unlabeled Chlorodioxin Standards

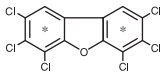
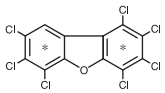
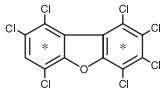
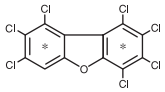
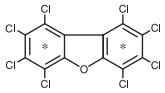
Catalog #	Compound		Concentration	Amount
ED-922	**1,4,7,8-Tetrachlorodibenzo-*p*-dioxin**		50 ± 5 µg/mL in Nonane	1.2 mL
ED-901	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin**		50 ± 2.5 µg/mL in Nonane	4 x 1.2 mL
ED-901-A			10 ± 1 µg/mL in Methanol	1.2 mL
ED-901-B			50 ± 5 µg/mL in DMSO	1.2 mL
ED-901-C			Crystalline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

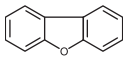
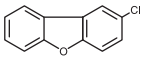
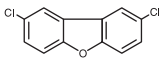
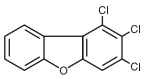
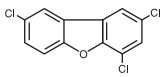
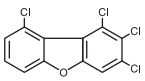
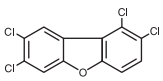
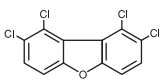
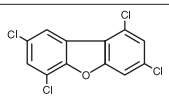
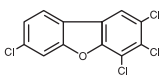
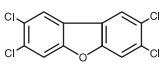
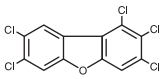
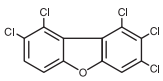
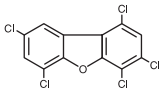
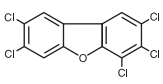
$^{13}C_{12}$ Labeled Chlorofuran Standards

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

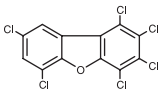
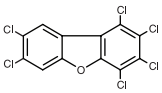
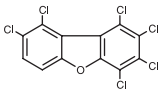
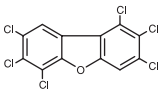
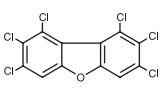
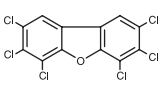
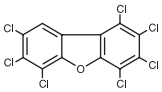
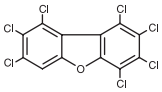
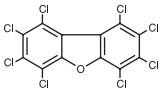
$^{13}C_{12}$ Labeled Chlorofuran Standards

Catalog #	Compound		Concentration	Amount
EF-987	**2,3,4,6,7,8-Hexachlorodibenzofuran ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-974	**1,2,3,4,6,7,8-Heptachlorodibenzofuran ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-5054	**1,2,3,4,6,8,9-Heptachlorodibenzofuran ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
EF-988	**1,2,3,4,7,8,9-Heptachlorodibenzofuran ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-983	**Octachlorodibenzofuran ($^{13}C_{12}$,99%)**		50 ± 2.5 µg/mL in Nonane	1.2 mL

Unlabeled Chlorofuran Standards

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

Unlabeled Chlorofuran Standards

Catalog #	Compound		Concentration	Amount
EF-943-50	**1,2,3,4,6,8-Hexachlorodibenzofuran**		50 ± 5 µg/mL in Nonane	1.2 mL
EF-964	**1,2,3,4,7,8-Hexachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-964-C			Crystalline solid	1 mg
EF-965	**1,2,3,4,8,9-Hexachlorodibenzofuran**		50 ± 5 µg/mL in Nonane	1.2 mL
EF-962	**1,2,3,6,7,8-Hexachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-967	**1,2,3,7,8,9-Hexachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-967-C			Crystalline solid	1 mg
EF-968	**2,3,4,6,7,8-Hexachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-973	**1,2,3,4,6,7,8-Heptachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-975	**1,2,3,4,7,8,9-Heptachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-982	**Octachlorodibenzofuran**		50 ± 2.5 µg/mL in Nonane	1.2 mL
EF-982-C			Crystalline solid	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	**1,2,3,4-TetraCDF**	0.2 mL
JR-F02-25	**1,2,3,6-TetraCDF**	0.2 mL
JR-F03-25	**1,2,3,7-TetraCDF**	0.2 mL
JR-F04-25	**1,2,3,8-TetraCDF**	0.2 mL
JR-F05-25	**1,2,3,9-TetraCDF**	0.2 mL
JR-F06-25	**1,2,4,6-TetraCDF**	0.2 mL
JR-F07-25	**1,2,4,7-TetraCDF**	0.2 mL
JR-F08-25	**1,2,4,8-TetraCDF**	0.2 mL
JR-F09-25	**1,2,4,9-TetraCDF**	0.2 mL
JR-F10-25	**1,2,6,7-TetraCDF**	0.2 mL
JR-F11-25	**1,2,6,8-TetraCDF**	0.2 mL
JR-F12-25	**1,2,6,9-TetraCDF**	0.2 mL
JR-F13-25	**1,2,7,8-TetraCDF**	0.2 mL
JR-F14-25	**1,2,7,9-TetraCDF**	0.2 mL
JR-F15-25	**1,2,8,9-TetraCDF**	0.2 mL
JR-F16-25	**1,3,4,6-TetraCDF**	0.2 mL
JR-F17-25	**1,3,4,7-TetraCDF**	0.2 mL
JR-F18-25	**1,3,4,8-TetraCDF**	0.2 mL
JR-F19-25	**1,3,4,9-TetraCDF**	0.2 mL
JR-F20-25	**1,3,6,7-TetraCDF**	0.2 mL
JR-F21-25	**1,3,6,8-TetraCDF**	0.2 mL
JR-F22-25	**1,3,6,9-TetraCDF**	0.2 mL
JR-F23-25	**1,3,7,8-TetraCDF**	0.2 mL
JR-F24-25	**1,3,7,9-TetraCDF**	0.2 mL
JR-F25-25	**1,4,6,7-TetraCDF**	0.2 mL
JR-F26-25	**1,4,6,8-TetraCDF**	0.2 mL
JR-F27-25	**1,4,6,9-TetraCDF**	0.2 mL
JR-F28-25	**1,4,7,8-TetraCDF**	0.2 mL
JR-F29-25	**1,6,7,8-TetraCDF**	0.2 mL
JR-F30-25	**2,3,4,6-TetraCDF**	0.2 mL
JR-F31-25	**2,3,4,7-TetraCDF**	0.2 mL
JR-F32-25	**2,3,4,8-TetraCDF**	0.2 mL
JR-F33-25	**2,3,6,7-TetraCDF**	0.2 mL
JR-F34-25	**2,3,6,8-TetraCDF**	0.2 mL
JR-F35-25	**2,3,7,8-TetraCDF**	0.2 mL
JR-F36-25	**2,4,6,7-TetraCDF**	0.2 mL
JR-F37-25	**2,4,6,8-TetraCDF**	0.2 mL
JR-F38-25	**3,4,6,7-TetraCDF**	0.2 mL
JR-F39-25	**1,2,3,4,6-PentaCDF**	0.2 mL
JR-F40-25	**1,2,3,4,7-PentaCDF**	0.2 mL
JR-F41-25	**1,2,3,4,8-PentaCDF**	0.2 mL
JR-F42-25	**1,2,3,4,9-PentaCDF**	0.2 mL
JR-F43-25	**1,2,3,6,7-PentaCDF**	0.2 mL
JR-F44-25	**1,2,3,6,8-PentaCDF**	0.2 mL
JR-F45-25	**1,2,3,6,9-PentaCDF**	0.2 mL
JR-F46-25	**1,2,3,7,8-PentaCDF**	0.2 mL
JR-F47-25	**1,2,3,7,9-PentaCDF**	0.2 mL
JR-F48-25	**1,2,3,8,9-PentaCDF**	0.2 mL
JR-F49-25	**1,2,4,6,7-PentaCDF**	0.2 mL
JR-F50-25	**1,2,4,6,8-PentaCDF**	0.2 mL
JR-F51-25	**1,2,4,6,9-PentaCDF**	0.2 mL
JR-F52-25	**1,2,4,7,8-PentaCDF**	0.2 mL
JR-F53-25	**1,2,4,7,9-PentaCDF**	0.2 mL
JR-F54-25	**1,2,4,8,9-PentaCDF**	0.2 mL
JR-F55-25	**1,2,6,7,8-PentaCDF**	0.2 mL
JR-F56-25	**1,2,6,7,9-PentaCDF**	0.2 mL
JR-F57-25	**1,3,4,6,7-PentaCDF**	0.2 mL
JR-F58-25	**1,3,4,6,8-PentaCDF**	0.2 mL
JR-F59-25	**1,3,4,6,9-PentaCDF**	0.2 mL
JR-F60-25	**1,3,4,7,8-PentaCDF**	0.2 mL
JR-F61-25	**1,3,4,7,9-PentaCDF**	0.2 mL
JR-F62-25	**1,3,6,7,8-PentaCDF**	0.2 mL
JR-F63-25	**1,4,6,7,8-PentaCDF**	0.2 mL
JR-F64-25	**2,3,4,6,7-PentaCDF**	0.2 mL
JR-F65-25	**2,3,4,6,8-PentaCDF**	0.2 mL
JR-F66-25	**2,3,4,7,8-PentaCDF**	0.2 mL
JR-F67-25	**1,2,3,4,6,7-HexaCDF**	0.2 mL
JR-F68-25	**1,2,3,4,6,8-HexaCDF**	0.2 mL
JR-F69-25	**1,2,3,4,6,9-HexaCDF**	0.2 mL
JR-F70-25	**1,2,3,4,7,8-HexaCDF**	0.2 mL
JR-F71-25	**1,2,3,4,7,9-HexaCDF**	0.2 mL
JR-F72-25	**1,2,3,4,8,9-HexaCDF**	0.2 mL
JR-F73-25	**1,2,3,6,7,8-HexaCDF**	0.2 mL
JR-F74-25	**1,2,3,6,7,9-HexaCDF**	0.2 mL
JR-F75-25	**1,2,3,6,8,9-HexaCDF**	0.2 mL
JR-F76-25	**1,2,3,7,8,9-HexaCDF**	0.2 mL
JR-F77-25	**1,2,4,6,7,8-HexaCDF**	0.2 mL
JR-F78-25	**1,2,4,6,7,9-HexaCDF**	0.2 mL
JR-F79-25	**1,2,4,6,8,9-HexaCDF**	0.2 mL
JR-F80-25	**1,3,4,6,7,8-HexaCDF**	0.2 mL
JR-F81-25	**1,3,4,6,7,9-HexaCDF**	0.2 mL
JR-F82-25	**2,3,4,6,7,8-HexaCDF**	0.2 mL
JR-F83-25	**1,2,3,4,6,7,8-HeptaCDF**	0.2 mL
JR-F84-25	**1,2,3,4,6,7,9-HeptaCDF**	0.2 mL
JR-F85-25	**1,2,3,4,6,8,9-HeptaCDF**	0.2 mL
JR-F86-25	**1,2,3,4,7,8,9-HeptaCDF**	0.2 mL
JR-F87-25	**1,2,3,4,6,7,8,9-OctaCDF**	0.2 mL

Unlabeled Chlorodioxin Standards for Elution Profiling

All concentrations are ~25 ng/mL in Nonane

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

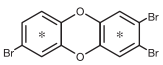
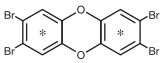
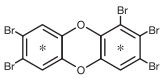
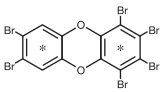
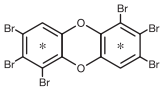
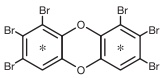
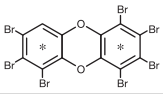
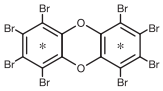
Catalog #	Compound	Amount
JR-D26-25	**1,2,3,6,8-PentaCDD**	0.2 mL
JR-D27-25	**1,2,3,6,9-PentaCDD**	0.2 mL
JR-D28-25	**1,2,3,7,8-PentaCDD**	0.2 mL
JR-D29-25	**1,2,3,7,9-PentaCDD**	0.2 mL
JR-D30-25	**1,2,3,8,9-PentaCDD**	0.2 mL
JR-D31-25	**1,2,4,6,7-PentaCDD**	0.2 mL
JR-D32-25	**1,2,4,6,8-PentaCDD**	0.2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

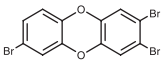
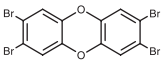
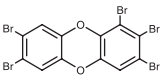
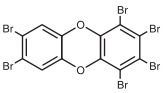
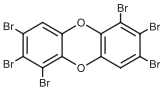
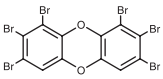
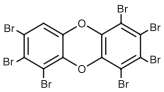
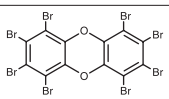
JR-TCDD-KIT	**Comprehensive Tetrachlorodibenzo-*p*-dioxin Column Defining Kit**	1 kit
JR-TCDF-KIT	**Comprehensive Tetrachlorodibenzofuran Column Defining Kit**	1 kit
JR-PECDD-KIT	**Comprehensive Pentachlorodibenzo-*p*-dioxin Column Defining Kit**	1 kit
JR-PECDF-KIT	**Comprehensive Pentachlorodibenzofuran Column Defining Kit**	1 kit
JR-HXCDD-KIT	**Comprehensive Hexachlorodibenzo-*p*-dioxin Column Defining Kit**	1 kit
JR-HXCDF-KIT	**Comprehensive Hexachlorodibenzofuran Column Defining Kit**	1 kit
JR-HPCDF-KIT	**Comprehensive Heptachlorodibenzofuran Column Defining Kit**	1 kit

JR-PCDD/F-KIT	**Comprehensive Polychlorinated Dioxin and Furan Column Defining Kit** **Includes all 136 "JR" dioxin and furan congeners**	1 kit

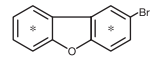
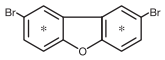
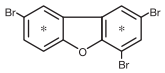
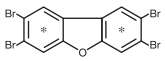
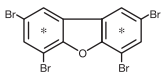
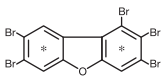
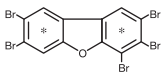
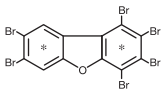
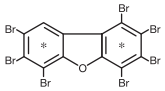
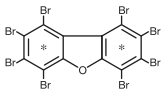
$^{13}C_{12}$ Labeled Bromodioxin Standards

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

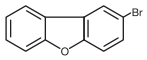
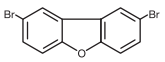
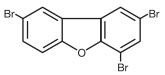
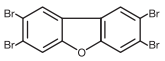
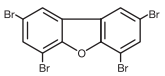
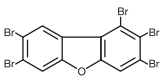
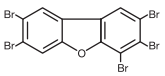
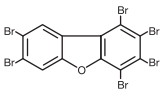
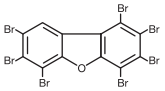
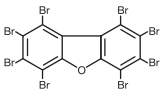
Unlabeled Bromodioxin Standards

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

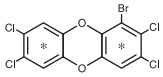
$^{13}C_{12}$ Labeled Bromofuran Standards

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

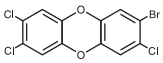
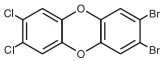
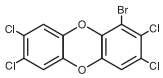
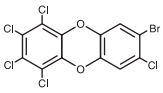
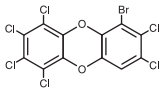
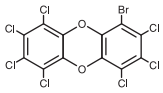
Unlabeled Bromofuran Standards

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

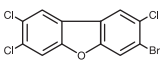
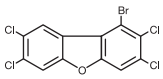
$^{13}C_{12}$ Labeled Mixed Bromo/Chlorodioxin Standards

Catalog #	Compound		Concentration	Amount
EBC-2509	**1-Bromo-2,3,7,8-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL

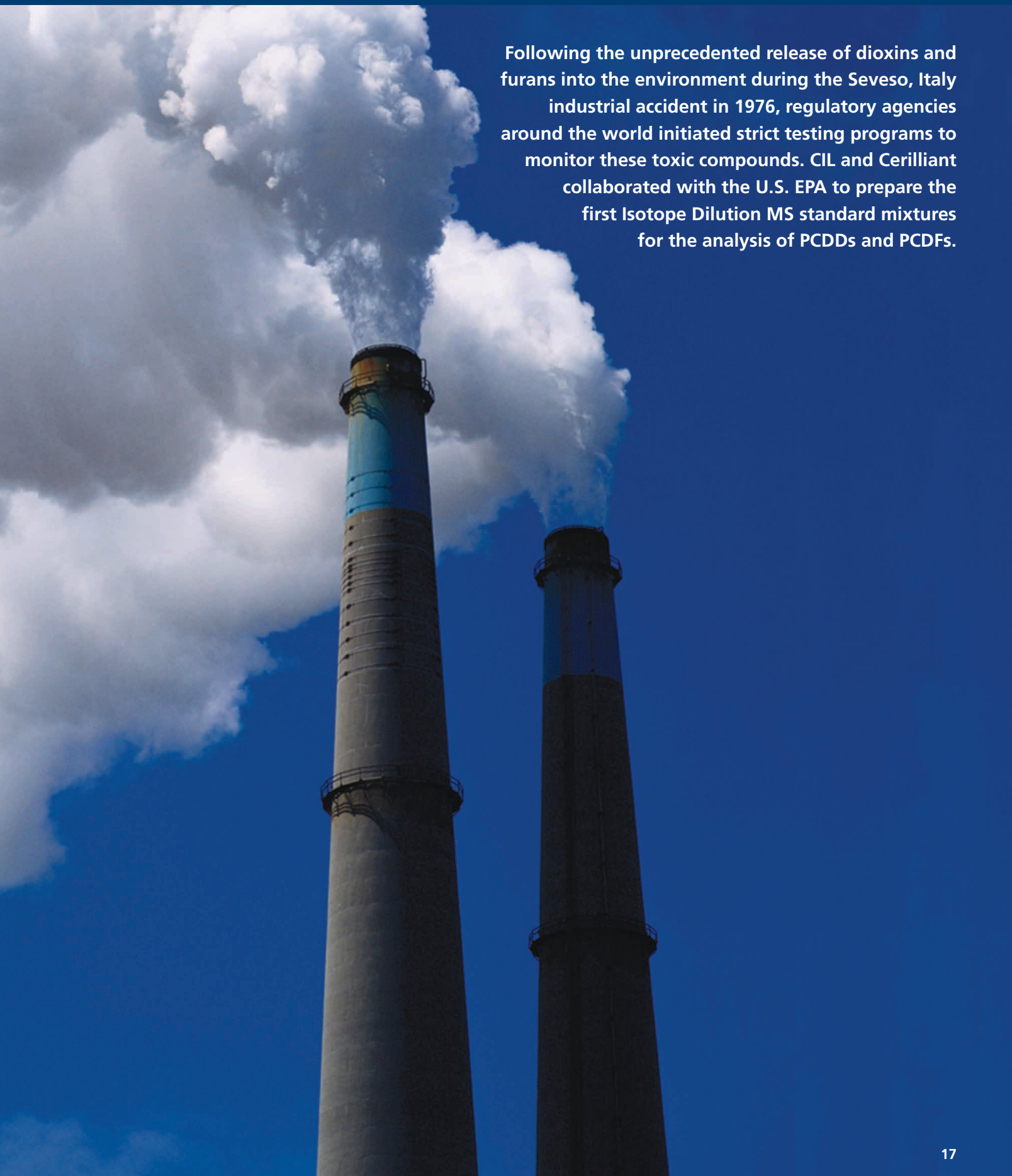
Unlabeled Mixed Bromo/Chlorodioxin Standards

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

Unlabeled Mixed Bromo/Chlorofuran Standards

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

Notes



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 ^{13}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 ^{13}C-labeled "non-2,3,7,8-containing" congeners. These standard mixtures allow researchers to use all 17 ^{13}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	**Method 1613 Calibration Solutions [CS1-CS5]**	Set of 5 x 0.2 mL in Nonane
*EDF-9999-0.1	**Method 1613 Calibration Solution [CS0.1]**	0.2 mL in Nonane
*EDF-9999-0.2	**Method 1613 Calibration Solution [CS0.2]**	0.2 mL in Nonane
*EDF-9999-0.5	**Method 1613 Calibration Solution [CS0.5]**	0.2 mL in Nonane
EDF-9999-1	**Method 1613 Calibration Solution [CS1]**	0.2 mL in Nonane
EDF-9999-2	**Method 1613 Calibration Solution [CS2]**	0.2 mL in Nonane
EDF-9999-3	**Method 1613 Daily Calibration Check Standard [CS3]**	0.2 mL in Nonane
EDF-9999-3-4	**Method 1613 Daily Calibration Check Standard [CS3]**	Set of 4 x 0.2 mL in Nonane
EDF-9999-4	**Method 1613 Calibration Solution [CS4]**	0.2 mL in Nonane
EDF-9999-5	**Method 1613 Calibration Solution [CS5]**	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	*CS0.1	*CS0.2	*CS0.5	CS1	CS2	CS3	CS4	CS5
2,3,7,8-TCDD	0.05	0.1	0.25	0.5	2.0	10	40	200
2,3,7,8-TCDF	0.05	0.1	0.25	0.5	2.0	10	40	200
1,2,3,7,8-PeCDD	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,7,8-PeCDF	0.25	0.5	1.25	2.5	10	50	200	1000
2,3,4,7,8-PeCDF	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,4,7,8-HxCDD	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,6,7,8-HxCDD	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,7,8,9-HxCDD	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,4,7,8-HxCDF	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,6,7,8-HxCDF	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,7,8,9-HxCDF	0.25	0.5	1.25	2.5	10	50	200	1000
2,3,4,6,7,8-HxCDF	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,4,6,7,8-HpCDD	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,4,6,7,8-HpCDF	0.25	0.5	1.25	2.5	10	50	200	1000
1,2,3,4,7,8,9-HpCDF	0.25	0.5	1.25	2.5	10	50	200	1000
OCDD	0.5	1.0	2.50	5.0	20	100	400	2000
OCDF	0.5	1.0	2.50	5.0	20	100	400	2000
Labeled								
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	0.05	0.1	0.25	0.5	2.0	10	40	200
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	100	100	100	100	100	100	100	100
OCDD ($^{13}C_{12}$,99%)	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	**Method 1613 Calibration Solutions (1/10 concentration) [CS1-CS5]**	Set of 5 x 0.2 mL
EDF-9999-A-3	**Method 1613 Calibration Check Standard (1/10 concentration) [CS3]**	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	**Method 1613 Daily Calibration Plus Window Definer and Isomer Specificity Solution**	200 µL in Nonane

Daily Calibration Standards	(ng/mL)
2,3,7,8-TCDD	10
2,3,7,8-TCDF	10
1,2,3,7,8-PeCDD	50
1,2,3,7,8-PeCDF	50
2,3,4,7,8-PeCDF	50
1,2,3,4,7,8-HxCDD	50
1,2,3,6,7,8-HxCDD	50
1,2,3,7,8,9-HxCDD	50
1,2,3,4,7,8-HxCDF	50
1,2,3,6,7,8-HxCDF	50
1,2,3,7,8,9-HxCDF	50
2,3,4,6,7,8-HxCDF	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 ($^{13}C_{12}$,99%)	100
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	10
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	100
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	100
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	100
OCDD ($^{13}C_{12}$,99%)	200

Window Defining Standards	(ng/mL)
1,3,6,8-TCDD	10
1,2,8,9-TCDD	10
1,3,6,8-TCDF	10
1,2,8,9-TCDF	10
1,2,4,6,8/1,2,4,7,9-PeCDD	50
1,2,3,8,9-PeCDD	50
1,3,4,6,8-PeCDF	50
1,2,3,8,9-PeCDF	50
1,2,4,6,7,9/1,2,4,6,8,9-HxCDD	50
1,2,3,4,6,8-HxCDF	50
1,2,3,4,8,9-HxCDF	50
1,2,3,4,6,7,9-HpCDD	50

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	**Method 1613 Cleanup Standard**	7.5 mL in Nonane
EDF-6999-10X	**Method 1613 Cleanup Standard (10X concentration)**	20 mL in Nonane

Labeled	EDF-6999 (ng/mL)	EDF-6999-10X (ng/mL)
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	0.8	8

EDF-5999	**Method 1613 Internal Standard Spiking Solution**	0.5 mL in Nonane

Labeled	
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	200
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	200

U.S. EPA Method 1613 Standard Mixtures

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

Labeled	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	100
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	100
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	100
OCDD ($^{13}C_{12}$,99%)	200

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

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

NEW	EDF-1613-KIT	**Method 1613 "Starter Kit"**	1 Kit

Contains one each of the following items:

EDF-9999	**Method 1613 Calibration Solutions**
EDF-5999	**Method 1613 Internal Standard Spiking Solution**
EDF-7999	**Method 1613 Precision and Recovery Standard Solution**
EDF-6999	**Method 1613 Cleanup Standard**

Contains two of the following item:

EDF-8999	**Method 1613 Labeled Compound Stock Solution**

U.S. EPA Method 23 Standard Mixtures

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

All concentrations are in pg/µL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
2,3,7,8-TCDD	0.5	1	5	50	100
2,3,7,8-TCDF	0.5	1	5	50	100
1,2,3,7,8-PeCDD	2.5	5	25	250	500
1,2,3,7,8-PeCDF	2.5	5	25	250	500
2,3,4,7,8-PeCDF	2.5	5	25	250	500
1,2,3,4,7,8-HxCDD	2.5	5	25	250	500
1,2,3,6,7,8-HxCDD	2.5	5	25	250	500
1,2,3,7,8,9-HxCDD	2.5	5	25	250	500
1,2,3,4,7,8-HxCDF	2.5	5	25	250	500
1,2,3,6,7,8-HxCDF	2.5	5	25	250	500
1,2,3,7,8,9-HxCDF	2.5	5	25	250	500
2,3,4,6,7,8-HxCDF	2.5	5	25	250	500
1,2,3,4,6,7,8-HpCDD	2.5	5	25	250	500
1,2,3,4,6,7,8-HpCDF	2.5	5	25	250	500
1,2,3,4,7,8,9-HpCDF	2.5	5	25	250	500
OCDD	5.0	10	50	500	1000
OCDF	5.0	10	50	500	1000
Internal Standards					
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
OCDD ($^{13}C_{12}$,99%)	200	200	200	200	200
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
Surrogate Standards					
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	0.5	1	5	50	100
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	2.5	5	25	250	500
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	2.5	5	25	250	500
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	2.5	5	25	250	500
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	2.5	5	25	250	500
Recovery Standards					
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
Alternate Recovery Standard					
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	2.5	5	25	250	500

U.S. EPA Method 23 Standard Mixtures

Catalog #	Compound	Amount
EDF-4053	**Method 23 Internal Standard Stock Solution**	1.2 mL in Nonane

Labeled	(pg/µL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	2000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000

EDF-4054	**Method 23 Surrogate Standard Stock Solution**	1.2 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	1000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000

EDF-4055	**Method 23 Recovery Standard Stock Solution**	1.2 mL in Nonane

Labeled	
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	500
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	500

EDF-5189	**Method 23 Alternate Recovery Stock Solution**	1.2 mL in Nonane

Labeled	
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000

U.S. EPA Method 8290 Standard Mixtures

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

All concentrations are in pg/µL (ppb)

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

U.S. EPA Method 8290 Standard Mixtures

Catalog #	Compound	Amount
ED-5004	**Method 8290 Recovery Standard Solution**	1.2 mL in Nonane

Labeled	(pg/µL)
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	100
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	250

EDF-5005	**Method 8290 Sample Fortification Solution**	1.2 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	250
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	250
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	250
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	250
OCDD ($^{13}C_{12}$,99%)	500

	EDF-5008	**Method 8290 Matrix Spiking Solution**	1.2 mL in Nonane
NEW	EDF-5008-50	**Method 8290 Matrix Spiking Solution (1:50 dilution)**	0.1 mL in Nonane

Unlabeled	EDF-5008	EDF-5008-50
2,3,7,8-TCDD	100	2
2,3,7,8-TCDF	100	2
1,2,3,7,8-PeCDD	250	5
1,2,3,7,8-PeCDF	250	5
2,3,4,7,8-PeCDF	250	5
1,2,3,4,7,8-HxCDD	250	5
1,2,3,4,7,8-HxCDF	250	5
1,2,3,6,7,8-HxCDD	250	5
1,2,3,6,7,8-HxCDF	250	5
1,2,3,7,8,9-HxCDD	250	5
1,2,3,7,8,9-HxCDF	250	5
2,3,4,6,7,8-HxCDF	250	5
1,2,3,4,6,7,8-HpCDD	250	5
1,2,3,4,6,7,8-HpCDF	250	5
1,2,3,4,7,8,9-HpCDF	250	5
OCDD	500	10
OCDF	500	10

U.S. EPA Method 8280 Standard Mixtures

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

All concentrations are in ng/µL (ppm)

Unlabeled	CC1	CC2	CC3	CC4	CC5
2,3,7,8-TCDD	0.1	0.25	0.5	1.0	2.0
2,3,7,8-TCDF	0.1	0.25	0.5	1.0	2.0
1,2,3,7,8-PeCDF	0.1	0.25	0.5	1.0	2.0
1,2,3,7,8-PeCDD	0.1	0.25	0.5	1.0	2.0
2,3,4,7,8-PeCDF	—	—	0.5	—	—
1,2,3,4,7,8-HxCDF	—	—	1.25	—	—
1,2,3,6,7,8-HxCDF	0.25	0.625	1.25	2.5	5.0
1,2,3,4,7,8-HxCDD	—	—	1.25	—	—
1,2,3,6,7,8-HxCDD	0.25	0.625	1.25	2.5	5.0
1,2,3,7,8,9-HxCDD	—	—	1.25	—	—
2,3,4,6,7,8-HxCDF	—	—	1.25	—	—
1,2,3,7,8,9-HxCDF	—	—	1.25	—	—
1,2,3,4,7,8,9-HpCDF	—	—	1.25	—	—
1,2,3,4,6,7,8-HpCDF	0.25	0.625	1.25	2.5	5.0
1,2,3,4,6,7,8-HpCDD	0.25	0.625	1.25	2.5	5.0
OCDD	0.5	1.25	2.5	5.0	10.0
OCDF	0.5	1.25	2.5	5.0	10.0
Labeled					
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1.0	1.0	1.0	1.0	1.0
OCDD ($^{13}C_{12}$,99%)	1.0	1.0	1.0	1.0	1.0
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	—	—	0.25	—	—

U.S. EPA Method 8280 Standard Mixtures

Catalog #	Compound	Amount
EDF-2520	**Method 8280 Internal Standard Solution**	1.2 mL in Nonane

Labeled	(ng/µL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	5
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	5
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	5
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10
OCDD ($^{13}C_{12}$,99%)	10

ED-2521	**Method 8280 Recovery Standard Solution**	1.2 mL in Nonane

Labeled	
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	5
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	5

ED-2522	**Method 8280 Cleanup Standard Solution**	1.2 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	5

EDF-2523	**Method 8280 Matrix Spiking Solution**	1.2 mL in Nonane

Unlabeled	
2,3,7,8-TCDD	2.5
2,3,7,8-TCDF	2.5
1,2,3,7,8-PeCDF	6.25
1,2,3,7,8-PeCDD	6.25
1,2,3,6,7,8-HxCDF	6.25
1,2,3,6,7,8-HxCDD	6.25
1,2,3,4,6,7,8-HpCDF	6.25
1,2,3,4,6,7,8-HpCDD	6.25
OCDD	12.5
OCDF	12.5

EDF-2681	**Supplemental Internal Standard Solution** (Not required by U.S. EPA Method 8280)	1.2 mL in Nonane

Labeled	
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	5
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	5
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	5
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10
OCDF ($^{13}C_{12}$,99%)	10

U.S. EPA Method 8280 Standard Mixtures

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

All concentrations are in ng/µL (ppm)

Unlabeled	CC1	CC2	CC3	CC4	CC5
2,3,7,8-TCDD	0.1	0.25	0.5	1.0	2.0
2,3,7,8-TCDF	0.1	0.25	0.5	1.0	2.0
1,2,3,7,8-PeCDD	0.1	0.25	0.5	1.0	2.0
1,2,3,7,8-PeCDF	0.1	0.25	0.5	1.0	2.0
2,3,4,7,8-PeCDF	0.1	0.25	0.5	1.0	2.0
1,2,3,4,7,8-HxCDD	0.25	0.625	1.25	2.5	5.0
1,2,3,4,7,8-HxCDF	0.25	0.625	1.25	2.5	5.0
1,2,3,6,7,8-HxCDD	0.25	0.625	1.25	2.5	5.0
1,2,3,6,7,8-HxCDF	0.25	0.625	1.25	2.5	5.0
1,2,3,7,8,9-HxCDD	0.25	0.625	1.25	2.5	5.0
1,2,3,7,8,9-HxCDF	0.25	0.625	1.25	2.5	5.0
2,3,4,6,7,8-HxCDF	0.25	0.625	1.25	2.5	5.0
1,2,3,4,6,7,8-HpCDD	0.25	0.625	1.25	2.5	5.0
1,2,3,4,6,7,8-HeptaCDF	0.25	0.625	1.25	2.5	5.0
1,2,3,4,7,8,9-HeptaCDF	0.25	0.625	1.25	2.5	5.0
OCDD	0.5	1.25	2.5	5.0	10.0
OCDF	0.5	1.25	2.5	5.0	10.0
Labeled					
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	0.25	0.25	0.25	0.25	0.25
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	0.5	0.5	0.5	0.5	0.5
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1.0	1.0	1.0	1.0	10
OCDD ($^{13}C_{12}$,99%)	1.0	1.0	1.0	1.0	1.0

EDF-4096	**Modified Method 8280 Matrix Spiking Solution** (All 17 toxic congeners)	1.2 mL in Nonane

Unlabeled	(ng/µL)
2,3,7,8-TCDD	2.5
2,3,7,8-TCDF	2.5
1,2,3,7,8-PeCDD	6.25
1,2,3,7,8-PeCDF	6.25
2,3,4,7,8-PeCDF	6.25
1,2,3,4,7,8-HxCDD	6.25
1,2,3,4,7,8-HxCDF	6.25
1,2,3,6,7,8-HxCDD	6.25
1,2,3,6,7,8-HxCDF	6.25
1,2,3,7,8,9-HxCDD	6.25
1,2,3,7,8,9-HxCDF	6.25
2,3,4,6,7,8-HxCDF	6.25
1,2,3,4,6,7,8-HpCDD	6.25
1,2,3,4,6,7,8-HpCDF	6.25
1,2,3,4,7,8,9-HpCDF	6.25
OCDD	12.5
OCDF	12.5

JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	ST1	ST2	ST3	ST4	ST5
2,3,7,8-TCDD	0.2	1	5	20	100
1,2,3,7,8-PeCDD	0.2	1	5	20	100
1,2,3,4,7,8-HxCDD	0.4	2	10	40	200
1,2,3,6,7,8-HxCDD	0.4	2	10	40	200
1,2,3,7,8,9-HxCDD	0.4	2	10	40	200
1,2,3,4,6,7,8-HpCDD	0.4	2	10	40	200
OCDD	1	5	25	100	500
2,3,7,8-TCDF	0.2	1	5	20	100
1,2,3,7,8-PeCDF	0.2	1	5	20	100
2,3,4,7,8-PeCDF	0.2	1	5	20	100
1,2,3,4,7,8-HxCDF	0.4	2	10	40	200
1,2,3,6,7,8-HxCDF	0.4	2	10	40	200
1,2,3,7,8,9-HxCDF	0.4	2	10	40	200
2,3,4,6,7,8-HxCDF	0.4	2	10	40	200
1,2,3,4,6,7,8-HpCDF	0.4	2	10	40	200
1,2,3,4,7,8,9-HpCDF	0.4	2	10	40	200
OCDF	1	5	25	100	500
Labeled					
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$, 99%)	10	10	10	10	10
OCDF ($^{13}C_{12}$,99%)	20	20	20	20	20

JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures

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

Labeled	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	2000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	2000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	2000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	2000
OCDD ($^{13}C_{12}$,99%)	4000
OCDF ($^{13}C_{12}$,99%)	4000

EDF-4965-A	**JIS Dioxin/Furan Type 1 and 2 Syringe Standard Solution**	0.5 mL in Nonane

Labeled	
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	2000
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	2000

EDF-4967	**JIS Dioxin/Furan Type 2 Cleanup Standard Solution**	1.2 mL in Nonane
EDF-4967-A	**JIS Dioxin/Furan Type 2 Cleanup Standard Solution**	0.5 mL in Nonane

Labeled	EDF-4967	EDF-4967-A
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	10	2000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	10	2000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	10	2000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	10	2000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	10	2000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	2000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10	2000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10	2000
OCDD ($^{13}C_{12}$,99%)	20	4000

EDF-4974-A	**JIS Wastewater Dioxin/Furan Type 1 Cleanup Standard Solution**	0.2 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	2000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	2000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	2000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	2000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	2000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	2000
OCDD ($^{13}C_{12}$,99%)	4000
OCDF ($^{13}C_{12}$,99%)	4000

JIS Methods K0311 and K0312 Dioxin/Furan Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	STD1	STD2	STD3	STD4	STD5
2,3,7,8-TCDD	0.4	2	10	40	200
1,2,3,7,8-PeCDD	0.4	2	10	40	200
1,2,3,4,7,8-HxCDD	1	5	25	100	500
1,2,3,6,7,8-HxCDD	1	5	25	100	500
1,2,3,7,8,9-HxCDD	1	5	25	100	500
1,2,3,4,6,7,8-HpCDD	1	5	25	100	500
OCDD	2	10	50	200	1000
2,3,7,8-TCDF	0.4	2	10	40	200
1,2,3,7,8-PeCDF	0.4	2	10	40	200
2,3,4,7,8-PeCDF	0.4	2	10	40	200
1,2,3,4,7,8-HxCDF	1	5	25	100	500
1,2,3,6,7,8-HxCDF	1	5	25	100	500
1,2,3,7,8,9-HxCDF	1	5	25	100	500
2,3,4,6,7,8-HxCDF	1	5	25	100	500
1,2,3,4,6,7,8-HpCDF	1	5	25	100	500
1,2,3,4,7,8,9-HpCDF	1	5	25	100	500
OCDF	2	10	50	200	1000
Labeled					
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDF ($^{13}C_{12}$,99%)	20	20	20	20	20

European Air Method EN-1948 Standard Mixtures

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

All concentrations are in pg/µL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
2,3,7,8-TCDD	0.5	2.0	10.0	40.0	200
2,3,7,8-TCDF	0.5	2.0	10.0	40.0	200
1,2,3,7,8-PeCDD	2.5	10.0	50.0	200	1000
1,2,3,7,8-PeCDF	2.5	10.0	50.0	200	1000
2,3,4,7,8-PeCDF	2.5	10.0	50.0	200	1000
1,2,3,4,7,8-HxCDD	2.5	10.0	50.0	200	1000
1,2,3,6,7,8-HxCDD	2.5	10.0	50.0	200	1000
1,2,3,7,8,9-HxCDD	2.5	10.0	50.0	200	1000
1,2,3,4,7,8-HxCDF	2.5	10.0	50.0	200	1000
1,2,3,6,7,8-HxCDF	2.5	10.0	50.0	200	1000
1,2,3,7,8,9-HxCDF	2.5	10.0	50.0	200	1000
2,3,4,6,7,8-HxCDF	2.5	10.0	50.0	200	1000
1,2,3,4,6,7,8-HpCDD	2.5	10.0	50.0	200	1000
1,2,3,4,6,7,8-HpCDF	2.5	10.0	50.0	200	1000
1,2,3,4,7,8,9-HpCDF	2.5	10.0	50.0	200	1000
OCDD	5.0	20.0	100	400	2000
OCDF	5.0	20.0	100	400	2000
Labeled					
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	100	100	100	100	100
OCDD ($^{13}C_{12}$,99%)	200	200	200	200	200
OCDF ($^{13}C_{12}$,99%)	200	200	200	200	200

European Air Method EN-1948 Standard Mixtures

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

Labeled	(pg/µL)
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	200

	Catalog #	Compound	Amount
	EDF-4139	**EN-1948 Extraction Standard Solution**	1.2 mL in Nonane
NEW	EDF-4139-10	**EN-1948 Extraction Standard Solution**	2 x 5 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	100
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	100
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	100
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	100
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	200
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	200
OCDD ($^{13}C_{12}$,99%)	200
OCDF ($^{13}C_{12}$,99%)	200

ED-4140	**EN-1948 Syringe Standard Solution**	1.2 mL in Nonane

Labeled	
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	400
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	400

EDF-4175	**EN-1948 Native Stock Response Factor Solution**	0.5 mL in Nonane

Unlabeled	
2,3,7,8-TCDD	1000
2,3,7,8-TCDF	1000
1,2,3,7,8-PeCDD	1000
1,2,3,7,8-PeCDF	1000
2,3,4,7,8-PeCDF	1000
1,2,3,4,7,8-HxCDD	1000
1,2,3,6,7,8-HxCDD	1000
1,2,3,7,8,9-HxCDD	4000
1,2,3,4,7,8-HxCDF	1000
1,2,3,6,7,8-HxCDF	1000
1,2,3,7,8,9-HxCDF	1000
2,3,4,6,7,8-HxCDF	1000
1,2,3,4,6,7,8-HpCDD	2000
1,2,3,4,6,7,8-HpCDF	2000
1,2,3,4,7,8,9-HpCDF	2000
OCDD	2000
OCDF	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	**Natural Matrix Reference Material (Soil)**	10 g
EDF-5184	**Heavily Contaminated Sediment Reference Material**	10 g
EDF-2524	**Clean Natural Matrix Reference Material (Fish)**	10 g
EDF-2525	**Contaminated Natural Matrix Reference Material (Fish)**	10 g
EDF-2526	**Fortified Natural Matrix Reference Material (Fish)**	10 g
EDF-4023	**Set of 3 Fish [1 each of EDF-2524, EDF-2525, EDF-2526]**	3 x 10 g

Participating Laboratories

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

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
NEW	EDF-5369	**Fly Ash Reference Material**	10 g

Participating Laboratories

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

NEW	EDF-5462	**Fortified Cod Liver Oil Reference Material**	10 g
NEW	EDF-5463	**Cod Liver Oil Reference Material**	10 g

Dioxin and Furan plus PCB Standard Mixtures

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

NOTE: Individual calibration levels are available upon request.

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CDC1	CDC2	CDC3	CDC4	CDC5	CDC6	CDC7	CDC8	CDC9
2,3,7,8-TCDD		0.04	0.10	0.20	1.00	2.00	7.00	20.0	35.0	50.0
2,3,7,8-TCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
1,2,3,7,8-PeCDD		0.04	0.10	0.20	0.50	1.00	2.00	5.00	10.0	20.0
1,2,3,7,8-PeCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
2,3,4,7,8-PeCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
1,2,3,4,7,8-HxCDD		0.04	0.10	0.20	0.50	1.00	2.00	5.00	10.0	20.0
1,2,3,4,7,8-HxCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
1,2,3,6,7,8-HxCDD		0.10	0.25	0.50	1.25	2.50	5.00	12.5	25.0	50.0
1,2,3,6,7,8-HxCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
1,2,3,7,8,9-HxCDD		0.20	0.50	1.00	2.00	5.00	10.0	20.0	25.0	30.0
1,2,3,7,8,9-HxCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
2,3,4,6,7,8-HxCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
1,2,3,4,6,7,8-HpCDD		1.00	2.00	5.00	10.0	20.0	25.0	50.0	100	200
1,2,3,4,6,7,8-HpCDF		0.20	0.50	1.00	2.00	5.00	10.0	20.0	25.0	30.0
1,2,3,4,6,7,9-HpCDD		0.04	0.10	0.20	0.50	1.00	2.00	5.00	10.0	20.0
1,2,3,4,7,8,9-HpCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
OCDD		10.0	20.0	50.0	100	200	300	400	500	600
OCDF		0.04	0.10	0.20	0.50	1.00	2.00	5.00	7.50	10.0
3,3′,4,4′-TetraCB	**77**	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
3,4,4′,5-TetraCB	**81**	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
3,3′,4,4′,5-PentaCB	**126**	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
3,3′,4,4′,5,5′-HexaCB	**169**	0.80	1.60	4.00	8.00	16.0	20.0	40.0	80.0	160
Labeled										
1,2,3,4-TCDD ($^{13}C_6$,99%)		25	25	25	25	25	25	25	25	25
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		50	50	50	50	50	50	50	50	50
2,3,7,8-TCDF ($^{13}C_{12}$,99%)		50	50	50	50	50	50	50	50	50
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)		50	50	50	50	50	50	50	50	50
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)		50	50	50	50	50	50	50	50	50
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)		50	50	50	50	50	50	50	50	50
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)		120	120	120	120	120	120	120	120	120
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)		125	125	125	125	125	125	125	125	125
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)		120	120	120	120	120	120	120	120	120
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)		125	125	125	125	125	125	125	125	125
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)		120	120	120	120	120	120	120	120	120
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)		125	125	125	125	125	125	125	125	125
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)		125	125	125	125	125	125	125	125	125
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%		120	120	120	120	120	120	120	120	120
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)		125	125	125	125	125	125	125	125	125
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)		62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
OCDD ($^{13}C_{12}$,99%)		250	250	250	250	250	250	250	250	250
OCDF ($^{13}C_{12}$,99%)		250	250	250	250	250	250	250	250	250
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	48	48	48	48	48	48	48	48	48
3,3′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**80**	48	48	48	48	48	48	48	48	48
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	48	48	48	48	48	48	48	48	48
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	72	72	72	72	72	72	72	72	72
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	96	96	96	96	96	96	96	96	96

Dioxin and Furan plus PCB Standard Mixtures

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

Labeled	IUPAC	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		25.0
2,3,7,8-TCDF ($^{13}C_{12}$,99%)		25.0
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)		25.0
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)		25.0
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)		25.0
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)		60.0
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)		62.5
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)		60.0
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)		62.5
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)		60.0
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)		62.5
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)		62.5
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)		60.0
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)		62.5
OCDD ($^{13}C_{12}$,99%)		125
OCDF ($^{13}C_{12}$,99%)		125
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	24.0
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	24.0
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	36.0
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	48.0

	Catalog #	Compound	Amount
NEW	EDF-4144-B	**Internal Standard for Dioxin, Furan and PCB in Tissue**	0.5 mL in 97.5% Methanol/2.5% Nonane

Labeled		
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		2.5
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)		2.5
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)		6
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)		6
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)		6
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)		6
OCDD ($^{13}C_{12}$,99%)		12.5
2,3,7,8-TCDF ($^{13}C_{12}$,99%)		2.5
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)		2.5
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)		2.5
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)		6.25
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)		6.25
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)		6.25
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)		6.25
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)		6.25
OCDF ($^{13}C_{12}$,99%)		12.5
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	2.4
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	2.4
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	3.6
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	4.8

Dioxin and Furan plus PCB Standard Mixtures

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

Labeled	IUPAC	(ng/mL)
1,2,3,4-TCDD ($^{13}C_6$,99%)		25.0
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)		62.5
3,3',5,5'-TetraCB ($^{13}C_{12}$,99%)	**80**	48.0

NEW	EDF-4145-A	**Recovery Standard for Dioxin, Furan and PCB in Tissue**	0.5 mL in Nonane

Labeled	IUPAC	(ng/mL)
1,2,3,4-TCDD ($^{13}C_6$,99%)		25.0
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)		62.5
3,3',5,5'-TetraCB ($^{13}C_{12}$,99%)	**80**	48.0
2,4,6,8-TBDF ($^{13}C_{12}$,99%)		20.0

NEW	ES-5321	**Multi-Analyte Recovery Spiking Standard**	10 mL in 88% Hexane/ 2% Dodecane/10% Nonane

Labeled	IUPAC	(ng/mL)
1,2,3,4-TCDD ($^{13}C_6$,99%)		2.5
2,2',3,3',4,5,5',6,6'-NonaCB ($^{13}C_{12}$,99%)	**208**	10.0
3,3',4,4'-TetraBDE ($^{13}C_{12}$,99%)	**77**	7.5
2,2',3,4,4',6-HexaBDE ($^{13}C_{12}$,99%)	**139**	7.5

Dioxin and Furan plus PCB Standard Mixtures

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

Labeled	IUPAC	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)		10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)		10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)		10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)		10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)		10
OCDD ($^{13}C_{12}$,99%)		20
2,3,7,8-TCDF ($^{13}C_{12}$,99%)		10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)		10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)		10
1,2,3,4,7,8-HxBDF ($^{13}C_{12}$,99%)		10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)		10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)		10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)		10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)		10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)		10
OCDF ($^{13}C_{12}$,99%)		20
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	10
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	10
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10

Dioxin and Furan plus PCB Standard Mixtures

	Catalog #	Compound	Amount
NEW	EDF-5393	**Dioxin Cleanup Spike**	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		20
1,3,6,8-TCDD ($^{13}C_{12}$,99%)		20
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)		20
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)		20
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)		20
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)		20
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)		20
OCDD ($^{13}C_{12}$,99%)		40
2,3,7,8-TCDF ($^{13}C_{12}$,99%)		20
1,3,6,8-TCDF ($^{13}C_{12}$,99%)		20
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)		20
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)		20
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)		20
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)		20
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)		20
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)		20
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)		20
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)		20
OCDF ($^{13}C_{12}$,99%)		40
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	20
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	20
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	20
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	20
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	20
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	20
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	20
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	20
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	20
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	20
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	20
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	20
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	20
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	20

	Catalog #	Compound	Amount
NEW	EDF-5395	**Dioxin Sampling Spike**	1.2 mL in Nonane

Labeled		
1,2,3,4-TCDF ($^{13}C_{12}$,99%)		50
1,2,3,4-TCDD ($^{13}C_{12}$,99%)		50
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	50

	Catalog #	Compound	Amount
NEW	EF-5394	**Dioxin Syringe Spike**	1.2 mL in Nonane

Labeled	
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	20
1,2,3,4,6,9-HxCDF ($^{13}C_{12}$,99%)	20
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	20

	Catalog #	Compound	Amount
NEW	EDF-5338	**Dioxin/Furan Syringe Spike**	1.2 mL in Nonane

Labeled	
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,9-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	1000

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

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5	CS6
2,3,7,8-TCDD	0.1	0.5	2	10	50	200
1,3,6,8-TCDD	0.1	0.5	2	10	50	200
1,3,7,9-TCDD	0.1	0.5	2	10	50	200
1,2,8,9-TCDD	0.1	0.5	2	10	50	200
1,2,3,7,8-PeCDD	0.1	0.5	2	10	50	200
1,2,3,4,7,8-HxCDD	0.2	1	4	20	100	400
1,2,3,6,7,8-HxCDD	0.2	1	4	20	100	400
1,2,3,7,8,9-HxCDD	0.2	1	4	20	100	400
1,2,3,4,6,7,8-HpCDD	0.2	1	4	20	100	400
OCDD	0.5	2.5	10	50	250	1000
2,3,7,8-TCDF	0.1	0.5	2	10	50	200
1,3,6,8-TCDF	0.1	0.5	2	10	50	200
1,2,7,8-TCDF	0.1	0.5	2	10	50	200
1,2,8,9-TCDF	0.1	0.5	2	10	50	200
1,2,3,7,8-PeCDF	0.1	0.5	2	10	50	200
2,3,4,7,8-PeCDF	0.1	0.5	2	10	50	200
1,2,3,4,7,8-HxCDF	0.2	1	4	20	100	400
1,2,3,6,7,8-HxCDF	0.2	1	4	20	100	400
2,3,4,6,7,8-HxCDF	0.2	1	4	20	100	400
1,2,3,7,8,9-HxCDF	0.2	1	4	20	100	400
1,2,3,4,6,7,8-HpCDF	0.2	1	4	20	100	400
1,2,3,4,7,8,9-HpCDF	0.2	1	4	20	100	400
OCDF	0.5	2.5	10	50	250	1000
Labeled						
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10	10	10	10	10	10
OCDD ($^{13}C_{12}$,99%)	20	20	20	20	20	20
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,6,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10	10
OCDF ($^{13}C_{12}$,99%)	20	20	20	20	20	20

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

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
1,3,6,8-TCDD	0.2	1.0	5.0	20	100
1,3,7,9-TCDD	0.2	1.0	5.0	20	100
1,2,8,9-TCDD	0.2	1.0	5.0	20	100
2,3,7,8-TCDD	0.2	1.0	5.0	20	100
1,2,3,7,8-PeCDD	0.2	1.0	5.0	20	100
1,2,3,4,7,8-HxCDD	0.2	1.0	5.0	20	100
1,2,3,6,7,8-HxCDD	0.2	1.0	5.0	20	100
1,2,3,7,8,9-HxCDD	0.2	1.0	5.0	20	100
1,2,3,4,6,7,8-HpCDD	0.2	1.0	5.0	20	100
OCDD	0.4	2.0	10	40	200
1,3,6,8-TCDF	0.2	1.0	5.0	20	100
1,2,7,8-TCDF	0.2	1.0	5.0	20	100
1,2,8,9-TCDF	0.2	1.0	5.0	20	100
2,3,7,8-TCDF	0.2	1.0	5.0	20	100
1,2,3,7,8-PeCDF	0.2	1.0	5.0	20	100
2,3,4,7,8-PeCDF	0.2	1.0	5.0	20	100
1,2,3,4,7,8-HxCDF	0.2	1.0	5.0	20	100
1,2,3,6,7,8-HxCDF	0.2	1.0	5.0	20	100
1,2,3,7,8,9-HxCDF	0.2	1.0	5.0	20	100
2,3,4,6,7,8-HxCDF	0.2	1.0	5.0	20	100
1,2,3,4,6,7,8-HpCDF	0.2	1.0	5.0	20	100
1,2,3,4,7,8,9-HpCDF	0.2	1.0	5.0	20	100
OCDF	0.4	2.0	10	40	200
Labeled					
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDF ($^{13}C_{12}$,99%)	20	20	20	20	20

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

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
1,3,6,8-TCDD	0.2	1	5	20	100
1,3,7,9-TCDD	0.2	1	5	20	100
1,2,8,9-TCDD	0.2	1	5	20	100
2,3,7,8-TCDD	0.2	1	5	20	100
1,2,3,7,8-PeCDD	0.2	1	5	20	100
1,2,3,4,7,8-HxCDD	0.4	2	10	40	200
1,2,3,6,7,8-HxCDD	0.4	2	10	40	200
1,2,3,7,8,9-HxCDD	0.4	2	10	40	200
1,2,3,4,6,7,8-HpCDD	0.4	2	10	40	200
OCDD	1	5	25	100	500
1,3,6,8-TCDF	0.2	1	5	20	100
1,2,7,8-TCDF	0.2	1	5	20	100
1,2,8,9-TCDF	0.2	1	5	20	100
2,3,7,8-TCDF	0.2	1	5	20	100
1,2,3,7,8-PeCDF	0.2	1	5	20	100
2,3,4,7,8-PeCDF	0.2	1	5	20	100
1,2,3,4,7,8-HxCDF	0.4	2	10	40	200
1,2,3,6,7,8-HxCDF	0.4	2	10	40	200
1,2,3,7,8,9-HxCDF	0.4	2	10	40	200
2,3,4,6,7,8-HxCDF	0.4	2	10	40	200
1,2,3,4,6,7,8-HpCDF	0.4	2	10	40	200
1,2,3,4,7,8,9-HpCDF	0.4	2	10	40	200
OCDF	1	5	25	100	500
Labeled					
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	10	10	10	10	10
OCDF ($^{13}C_{12}$,99%)	20	20	20	20	20

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

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
2,3,7,8-TCDD	0.2	1	5	20	100
1,2,3,7,8-PeCDD	0.2	1	5	20	100
1,2,3,4,7,8-HxCDD	0.4	2	10	40	200
1,2,3,6,7,8-HxCDD	0.4	2	10	40	200
1,2,3,7,8,9-HxCDD	0.4	2	10	40	200
1,2,3,4,6,7,8-HpCDD	0.4	2	10	40	200
OCDD	1	5	25	100	500
2,3,7,8-TCDF	0.2	1	5	20	100
1,2,3,7,8-PeCDF	0.2	1	5	20	100
2,3,4,7,8-PeCDF	0.2	1	5	20	100
1,2,3,4,7,8-HxCDF	0.4	2	10	40	200
1,2,3,6,7,8-HxCDF	0.4	2	10	40	200
1,2,3,7,8,9-HxCDF	0.4	2	10	40	200
2,3,4,6,7,8-HxCDF	0.4	2	10	40	200
1,2,3,4,6,7,8-HpCDF	0.4	2	10	40	200
1,2,3,4,7,8,9-HpCDF	0.4	2	10	40	200
OCDF	1	5	25	100	500
Labeled					
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	20	20	20	20	20
OCDD ($^{13}C_{12}$,99%)	40	40	40	40	40
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4-TCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,6,9-HxCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	20	20	20	20	20
OCDF ($^{13}C_{12}$,99%)	40	40	40	40	40

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

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

Labeled	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	2000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	2000
OCDD ($^{13}C_{12}$,99%)	4000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	2000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	2000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	2000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	2000
OCDF ($^{13}C_{12}$,99%)	4000

EF-5042	**Non-2,3,7,8-Containing PCDF Syringe Standard**	1.2 mL in Nonane

Labeled	
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	2000

EDF-5043	**Non-2,3,7,8-Containing PCDF Sampling Standard**	1.2 mL in Nonane

Labeled	
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	2000
1,2,3,4-TCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	2000
1,2,3,4,6,9-HxCDF ($^{13}C_{12}$,99%)	2000

EF-5188	**Non-2,3,7,8-Containing ^{13}C Furan Syringe Spike**	1.2 mL in Nonane

Labeled	
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	1000

Two Column Dioxin and Furan Standard Mixtures

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

All concentrations are in ng/mL (ppb)

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

Two Column Dioxin and Furan Standard Mixtures

	Catalog #	Compound	Amount
NEW	EDF-5430	**Two Column Dioxin and Furan Cleanup Spike**	1.2 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	50
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	50
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	50
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	50
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	50
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	50
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	50
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	50
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	50
OCDF ($^{13}C_{12}$,99%)	100
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	50
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	50
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	50
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	50
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	50
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	50
OCDD ($^{13}C_{12}$,99%)	100

NEW	EDF-5431	**Two Column Dioxin and Furan Syringe Spike**	1.2 mL in Nonane
NEW	EDF-5431-20X	**Two Column Dioxin and Furan Syringe Spike**	1.2 mL in Nonane

Labeled	EDF-5431	EDF-5431-20X
1,2,7,8-TCDF ($^{13}C_{12}$,99%)	50	1000
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)	50	1000
1,2,3,4,6,7-HxCDD ($^{13}C_{12}$,99%)	50	1000
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)	50	1000

NEW	EDF-5444-A	**Two Column Dioxin and Furan and PCB Cleanup Spike**	0.6 mL in Nonane

Labeled	(ng/mL)	Labeled	IUPAC	(ng/mL)
2,3,7,8-TCDD-*p*-dioxin ($^{13}C_{12}$,99%)	1000	**OCDF ($^{13}C_{12}$,99%)**		2000
1,2,3,7,8-PeCD-*p*-dioxin ($^{13}C_{12}$,99%)	1000	**3,4,4',5-TetraCB ($^{13}C_{12}$,99%)**	**81**	1000
1,2,3,4,7,8-HxCD-*p*-dioxin ($^{13}C_{12}$,99%)	1000	**3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)**	**77**	1000
1,2,3,6,7,8-HxCD-*p*-dioxin ($^{13}C_{12}$,99%)	1000	**3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)**	**126**	1000
1,2,3,7,8,9-HxCD-*p*-dioxin ($^{13}C_{12}$,99%)	1000	**3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)**	**169**	1000
1,2,3,4,6,7,8-HpCD-*p*-dioxin ($^{13}C_{12}$,99%)	1000	**2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)**	**123**	1000
OCD-*p*-dioxin ($^{13}C_{12}$,99%)	2000	**2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)**	**118**	1000
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	1000	**2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)**	**105**	1000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000	**2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)**	**114**	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000	**2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)**	**167**	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000	**2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)**	**156**	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000	**2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)**	**157**	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000	**2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)**	**189**	1000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000	**2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)**	**180**	1000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000			
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000			
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000			

Two Column Dioxin and Furan Standard Mixtures

	Catalog #	Compound	Amount
NEW	EDF-5443	**Two Column Dioxin and Furan and PCB Calibration Solutions [CS1H-CS6H]**	Set of 6 x 0.2 mL in Nonane
NEW	EDF-5443-CS1H	**Two Column Dioxin and Furan and PCB Calibration Solution [CS1H]**	0.2 mL in Nonane
NEW	EDF-5443-CS2H	**Two Column Dioxin and Furan and PCB Calibration Solution [CS2H]**	0.2 mL in Nonane
NEW	EDF-5443-CS3H	**Two Column Dioxin and Furan and PCB Calibration Solution [CS3H]**	0.2 mL in Nonane
NEW	EDF-5443-CS4H	**Two Column Dioxin and Furan and PCB Calibration Solution [CS4H]**	0.2 mL in Nonane
NEW	EDF-5443-CS5H	**Two Column Dioxin and Furan and PCB Calibration Solution [CS5H]**	0.2 mL in Nonane
NEW	EDF-5443-CS6H	**Two Column Dioxin and Furan and PCB Calibration Solution [CS6H]**	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
1,2,3,4-TCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,3,6,8-TCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,6,7-HxCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)		10	10	10	10	10	10
OCDD ($^{13}C_{12}$,99%)		20	20	20	20	20	20
2,3,7,8-TCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,7,8-TCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,6-PeCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,6,8,9-HpCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)		10	10	10	10	10	10
OCDF ($^{13}C_{12}$,99%)		20	20	20	20	20	20
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10	10	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	10	10	10	10	10	10
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	10	10	10	10	10	10
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10	10	10
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	10	10	10	10	10	10
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	10	10	10	10	10	10

Mono-Tri Dioxin and Furan Standard Mixtures

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

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

Catalog #	Compound	Amount
EDF-4955	**Mono-TriCDD/CDF ^{13}C-Labeled Solution**	1.2 mL in Nonane

Labeled	
2-MCDD ($^{13}C_{12}$,99%)	1000
2-MCDF ($^{13}C_{12}$,99%)	1000
2,3-DiCDD ($^{13}C_{12}$,99%)	1000
2,8-DiCDF ($^{13}C_{12}$,99%)	1000
2,3,7-TrCDD ($^{13}C_{12}$,99%)	1000
2,4,8-TrCDF ($^{13}C_{12}$,99%)	1000

Isotope Labeled Dioxin and Furan Standard Mixtures

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

Labeled	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	1000
OCDF ($^{13}C_{12}$,99%)	1000

EDF-4067	**Tetra-OctaCDD and CDF Standard Solution (2,3,7,8-isomers)**	1.2 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	1000
OCDF ($^{13}C_{12}$,99%)	1000

EDF-4067-A	**Tetra-OctaCDD and CDF Standard Solution (2,3,7,8-isomers excluding 1,2,3,7,8,9-HxCDD)**	1.2 mL in Nonane

Labeled	
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	2000
OCDF ($^{13}C_{12}$,99%)	2000

Isotope Labeled Dioxin and Furan Standard Mixtures

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

Labeled	(ng/mL)
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	2000
OCDF ($^{13}C_{12}$,99%)	2000

	Catalog #	Compound	Amount
NEW	EDF-5304	**Dioxin and Furan Cleanup Spike**	1.2 mL in Nonane

Labeled	
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	2000
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	1000
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000
OCDF ($^{13}C_{12}$,99%)	2000

Isotope Labeled Dioxin and Furan Standard Mixtures

Catalog #	Compound	Amount
ED-998	**TCDD-OCDD Standard Solution (2,3,7,8 isomers)**	1.2 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	1000
OCDD ($^{13}C_{12}$,99%)	1000

EF-999	**TCDF-OCDF Standard Solution (2,3,7,8 isomers excluding 2,3,4,6,7,8-HxCDF)**	1.2 mL in Nonane

Labeled	
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	1000
OCDF ($^{13}C_{12}$,99%)	1000

NEW	EDF-4136-A	**Pre-Sampling Spike Mix**	1.2 mL in Nonane

Labeled	
2,3-DiCDD ($^{13}C_{12}$,99%)	2500
2,8-DiCDF ($^{13}C_{12}$,99%)	2500
2,3,7-TrCDD ($^{13}C_{12}$,99%)	2500
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	1250
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	2500
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	2500
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	2500
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	2500

NEW	EDF-4137-A	**Internal Standard Mix – High**	1.2 mL in Nonane

Labeled	
2-MCDD ($^{13}C_{12}$,99%)	2500
2-MCDF ($^{13}C_{12}$,99%)	2500
2,7/2,8-DiCDD ($^{13}C_{12}$,99%)	2500
2,4-DiCDF ($^{13}C_{12}$,99%)	2500
2,4,8-TRCDF ($^{13}C_{12}$,99%)	2500
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	1250
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	1250
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	2500
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	2500
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	2500
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	2500
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	2500
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	2500
OCDD ($^{13}C_{12}$,99%)	5000

Isotope Labeled Dioxin and Furan Standard Mixtures

	Catalog #	Compound	Amount
NEW	EDF-5192	**Dioxin and Furan Cleanup Spike**	1.2 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	200
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	200
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	200
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	200
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	200
OCDD ($^{13}C_{12}$,99%)	400
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	200
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	200
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	200
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	200
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	200
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	200
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	200
OCDF ($^{13}C_{12}$,99%)	400

	EDF-5174-40X	**1,3,6,8-TCDD/F Containing Cleanup Spike – 40X Stock Solution**	1.2 mL in Nonane

Labeled	
1,3,6,8-TCDD ($^{13}C_{12}$,99%)	200
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	200
1,2,3,7,8-PeCDD ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8-HxCDD ($^{13}C_{12}$,99%)	200
1,2,3,6,7,8-HxCDD ($^{13}C_{12}$,99%)	200
1,2,3,7,8,9-HxCDD ($^{13}C_{12}$,99%)	200
1,2,3,4,6,7,8-HpCDD ($^{13}C_{12}$,99%)	200
OCDD ($^{13}C_{12}$,99%)	400
1,3,6,8-TCDF ($^{13}C_{12}$,99%)	200
2,3,7,8-TCDF ($^{13}C_{12}$,99%)	200
1,2,3,7,8-PeCDF ($^{13}C_{12}$,99%)	200
2,3,4,7,8-PeCDF ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8-HxCDF ($^{13}C_{12}$,99%)	200
1,2,3,6,7,8-HxCDF ($^{13}C_{12}$,99%)	200
1,2,3,7,8,9-HxCDF ($^{13}C_{12}$,99%)	200
2,3,4,6,7,8-HxCDF ($^{13}C_{12}$,99%)	200
1,2,3,4,6,7,8-HpCDF ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8,9-HpCDF ($^{13}C_{12}$,99%)	200
OCDF ($^{13}C_{12}$,99%)	400

Unlabeled Dioxin and Furan Standard Mixtures

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

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

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

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

NEW	ED-4135	**Chlorodioxin Mix – High**	1 mL in Nonane

Unlabeled	
2-MonoCDD	5000
2,8-DiCDD	5000
2,3,7-TrCDD	5000
2,3,7,8-TCDD	5000
1,2,3,7,8-PeCDD	5000
1,2,3,4,7,8-HxCDD	5000
1,2,3,6,7,8-HxCDD	5000
1,2,3,7,8,9-HxCDD	5000
1,2,3,4,6,7,8-HpCDD	5000
OCDD	5000

NEW	EF-4134	**Chlorodibenzofuran Mix – High**	1 mL in Nonane

Unlabeled	
2-MCDF	5000
2,4-DiCDF	5000
2,4,6-TrCDF	5000
2,3,7,8-TCDF	5000
1,2,3,7,8-PeCDF	5000
2,3,4,7,8-PeCDF	5000
1,2,3,4,7,8-HxCDF	5000
1,2,3,6,7,8-HxCDF	5000
2,3,4,6,7,8-HxCDF	5000
1,2,3,7,8,9-HxCDF	5000
1,2,3,4,6,7,8-HpCDF	5000
1,2,3,4,7,8,9-HpCDF	5000
OCDF	5000

Chlorodioxin and Chlorofuran Window Defining Mixtures

Catalog #	Compound	Amount
EDF-4147	**PCDD/PCDF Window Defining and Isomer Specificity Mix** (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 ($^{13}C_{12}$,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 ($^{13}C_{12}$,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

	Catalog #	Compound	Amount
NEW	ED-1732-S	**TCDD-HpCDD Window Defining Mixture (DB-5)**	0.5 mL in Nonane

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

	Catalog #	Compound	Amount
NEW	EF-1731-S	**TCDF-HpCDF Window Defining Mixture (DB-5)**	0.5 mL in Nonane

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)
1,2,3,4-TCDD	10
1,2,3,7/1,2,3,8-TCDD	10
1,2,7,8-TCDD	10
1,4,7,8-TCDD	10
2,3,7,8-TCDD	10

NEW	ED-935-A	**Modified TCDD Column Performance Check Solution**	0.5 mL in Nonane

Congeners	
2,3,7,8-TCDD	100
1,2,3,4-TCDD	100
1,4,7,8-TCDD	100
1,2,3,7/1,2,3,8-TCDD pair	100
1,2,7,8-TCDD	200
2,3,7,8-TCDD ($^{13}C_{12}$,99%)	250
2,3,7,8-TCDD ($^{37}Cl_4$,96%)	7
1,2,3,4-TCDD ($^{13}C_{12}$,99%)	500

Bromodioxin/Furan Calibration Solutions

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

All concentrations are in ng/mL (ppb)

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

Bromodioxin/Furan Standard Mixtures

	Catalog #	Compound	Amount
NEW	EDF-5408	**Bromodioxin/Furan Cleanup Spike**	0.5 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TBDD ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxBDD ($^{13}C_{12}$,99%)	250
1,2,3,6,7,8-HxBDD ($^{13}C_{12}$,99%)	250
1,2,3,4,6,7,8-HpBDD ($^{13}C_{12}$,99%)	500
OBDD ($^{13}C_{12}$,99%)	750
2,3,7,8-TBDF ($^{13}C_{12}$,99%)	100
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxBDF ($^{13}C_{12}$,99%)	250
1,2,3,4,6,7,8-HpBDF ($^{13}C_{12}$,99%)	500
OBDF ($^{13}C_{12}$,99%)	750

NEW	EDF-5409	**Bromodioxin/Furan Syringe Spike**	1.2 mL in Nonane

Labeled	
1,2,3,7,8,9-HxBDD ($^{13}C_{12}$,99%)	500
1,2,3,7,8-PeBDF ($^{13}C_{12}$,99%)	200

NEW	EF-5410	**Bromodioxin/Furan Sampling Spike**	1.2 mL in Nonane

Labeled	
2,4,6,8-TBDF ($^{13}C_{12}$,99%)	200

Bromodioxin/Furan Calibration Solutions

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

All concentrations are in ng/mL (ppb)

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

Bromodioxin/Furan Standard Mixtures

	Catalog #	Compound	Amount
NEW	EDF-5382	**PBDD/F Cleanup Spike**	0.5 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TeBDD ($^{13}C_{12}$,99%)	50
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxBDD ($^{13}C_{12}$,99%)	375
1,2,3,6,7,8-HxBDD ($^{13}C_{12}$,99%)	375
OBDD ($^{13}C_{12}$,99%)	1125
2,3,7,8-TeBDF ($^{13}C_{12}$,99%)	200
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	200
1,2,3,4,7,8-HxBDF ($^{13}C_{12}$,99%)	375
1,2,3,4,6,7,8-HpBDF ($^{13}C_{12}$,99%)	500
OBDF ($^{13}C_{12}$,99%)	1125

NEW	EDF-5383	**PBDD/F Syringe Spike Stock**	1.2 mL in Nonane
NEW	EDF-5383-4X	**PBDD/F Syringe Spike Stock**	1.2 mL in Nonane

Labeled	EDF-5383	EDF-5383-4X
1,2,3,7,8,9-HxBDD ($^{13}C_{12}$,99%)	500	2000
1,2,3,7,8-PeBDF ($^{13}C_{12}$,99%)	200	800

NEW	EF-5384	**PBDD/F Sampling Stock**	1.2 mL in Nonane
NEW	EF-5384-4X	**PBDD/F Sampling Stock**	1.2 mL in Nonane

Labeled	EF-5384	EF-5384-4X
2,4,6,8-TeBDF ($^{13}C_{12}$,99%)	200	800

Bromodioxin/Furan Calibration Solutions

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

All concentrations are in ng/mL (ppb)

Unlabeled	BCS1	BCS2	BCS3	BCS4	BCS5
2,3,7,8-TBDD	0.5	2	10	40	100
1,2,3,7,8-PeBDD	2.5	10	50	200	500
1,2,3,4,7,8-HxBDD	2.5	10	50	200	500
1,2,3,6,7,8-HxBDD	2.5	10	50	200	500
1,2,3,7,8,9-HxBDD	2.5	10	50	200	500
2,3,7,8-TBDF	0.5	2	10	40	100
1,2,3,7,8-PeBDF	2.5	10	50	200	500
2,3,4,7,8-PeBDF	2.5	10	50	200	500
Labeled					
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	100	100	100	100	100
2,3,7,8-TBDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,7,8-PeBDF ($^{13}C_{12}$,99%)	100	100	100	100	100
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,4,7,8-HxBDF ($^{13}C_{12}$,99%)	100	100	100	100	100
Cleanup Standard					
1,2,3,4,7,8-HxBDD ($^{13}C_{12}$,99%)	0.5	2	10	40	100
Internal Standards					
2,3,7,8-TBDD ($^{13}C_{12}$,99%)	100	100	100	100	100
1,2,3,6,7,8-HxBDD ($^{13}C_{12}$,99%)	25	25	25	25	25

Bromodioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-5058	**Tetra-Hexa Brominated Dioxin and Furan Standard Solution**	1.2 mL in Nonane

Labeled	(ng/mL)
2,3,7,8-TBDD ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	1000
1,2,3,4,7,8-HxBDD ($^{13}C_{12}$,99%)	1000
2,3,7,8-TBDF ($^{13}C_{12}$,99%)	1000
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	1000

	Catalog #	Compound	Amount
NEW	ED-5073	**Brominated Dioxin/Furan Internal Standard**	1.2 mL in Nonane

Labeled	
2,3,7,8-TBDD ($^{13}C_{12}$,99%)	200
1,2,3,6,7,8-HxBDD ($^{13}C_{12}$,99%)	50
1,2,3,7,8,9-HxBDD ($^{13}C_{12}$,99%)	150

Catalog #	Compound	Amount
EDF-5071	**Brominated Dioxin/Furan Labeled Compounds**	1.2 mL in Nonane

Labeled	
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	100
2,3,7,8-TBDF ($^{13}C_{12}$,99%)	100
1,2,3,7,8-PeBDF ($^{13}C_{12}$,99%)	100
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxBDF ($^{13}C_{12}$,99%)	100

Catalog #	Compound	Amount
EDF-2530	**Tetra-Penta Brominated Dioxin and Furan Standard Solution**	1.2 mL in Nonane

Labeled	
2,3,7,8-TBDD ($^{13}C_{12}$,99%)	100
2,3,7,8-TBDF ($^{13}C_{12}$,99%)	1000
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	500
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	5000

	Catalog #	Compound	Amount
	EDF-4153	**PBDD/PBDF Surrogate Spiking Solution**	1 mL in Nonane
NEW	EDF-4153-10X	**PBDD/PBDF Surrogate Spiking Solution**	0.5 mL in Nonane

Labeled	EDF-4153	EDF-4153-10X
2,3,7,8-TBDD ($^{13}C_{12}$,99%)	20	200
2,3,7,8-TBDF ($^{13}C_{12}$,99%)	20	200
1,2,3,7,8-PeBDD ($^{13}C_{12}$,99%)	20	200
1,2,3,7,8-PeBDF ($^{13}C_{12}$,99%)	20	200
1,2,3,6,7,8/1,2,3,7,8,9-HxBDD ($^{13}C_{12}$,99%)	40	400

Catalog #	Compound	Amount
EDF-4154	**PBDD/PBDF Performance Standard Mixture**	1 mL in Nonane

Labeled	
2,3,4,7,8-PeBDF ($^{13}C_{12}$,99%)	100
1,2,3,4,7,8-HxBDD ($^{13}C_{12}$,99%)	100

Bromodioxin/Furan Standard Mixtures

Catalog #	Compound	Amount
EDF-5059	**Polybrominated Dioxin and Furan Mixture**	1.2 mL in Nonane

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

EDF-5074	**Brominated Dioxin/Furan PAR Solution**	1.2 mL in Nonane

Unlabeled	
2,3,7,8-TBDD	100
1,2,3,7,8-PeBDD	500
1,2,3,4,7,8-HxBDD	500
1,2,3,6,7,8-HxBDD	500
1,2,3,7,8,9-HxBDD	500
2,3,7,8-TBDF	100
1,2,3,7,8-PeBDF	500
2,3,4,7,8-PeBDF	500

From their first commercial use in the 1920s, it is estimated that over 1,500,000 tons ($1.5x10^{21}$ 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 isooctane 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 ^{13}C-labeled PCB standards to meet the growing needs of researchers utilizing Isotope Dilution MS. All ^{13}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 ^{13}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 ^{13}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 ^{13}C-non-ortho DL-PCBs, native content, other PCB congeners and PCDD/Fs.

Chemical Identity: Unambiguous identity by GC/MS, ^{1}H-NMR, ^{13}C-NMR, and MP determination

Isotopic Enrichment: 99% by GC/MS

Chemical Purity: >98% by GC/MS, GC/ECD, and ^{1}H-NMR

- *Native Content: <0.1% by GC/MS SI*
- *^{13}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 $^{13}C_{12}$-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.

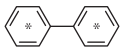
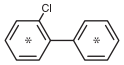
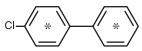
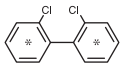
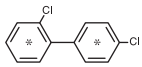
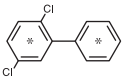
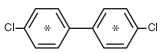
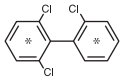
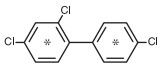
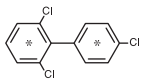
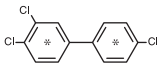
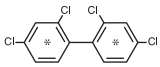
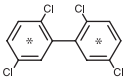
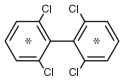
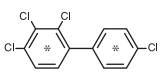
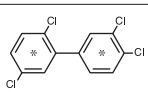
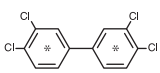
NEW Comprehensive Native PCB Mixtures

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.

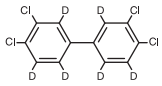
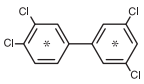
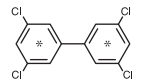
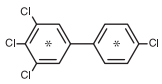
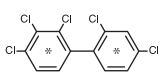
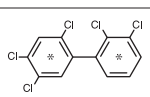
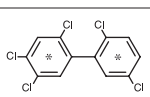
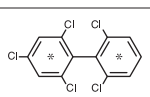
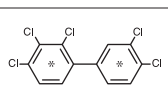
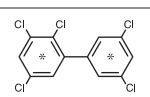
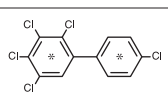
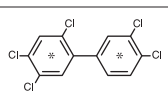
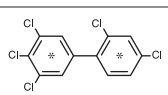
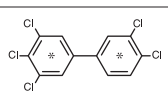
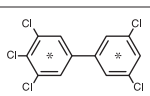
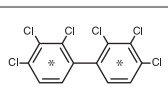
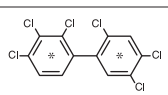
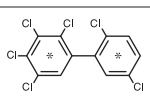
NEW Mixed Bromo/Chloro Biphenyl Standards

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.

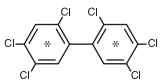
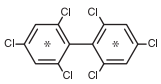
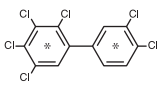
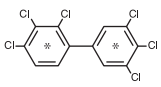
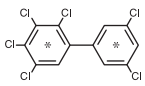
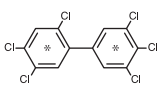
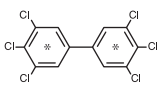
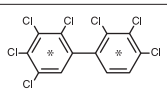
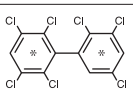
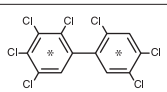
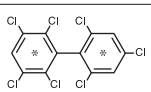
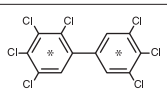
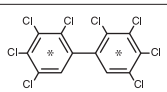
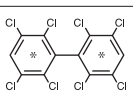
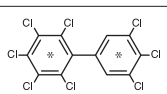
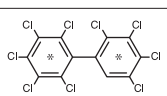
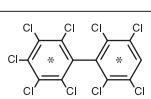
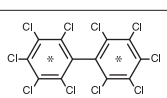
Isotope Labeled Individual PCB Standards

Catalog #	Compound	IUPAC		Concentration	Amount
CLM-3235-1.2	**Biphenyl ($^{13}C_{12}$,99%)**	**0**		100 µg/mL in Nonane	1.2 mL
EC-4908-3 EC-4908-1.2	**2-Monochlorobiphenyl ($^{13}C_{12}$,99%)**	**1**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4990-3 EC-4990-1.2	**4-Monochlorobiphenyl ($^{13}C_{12}$,99%)**	**3**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4911-3 EC-4911-1.2	**2,2′-Dichlorobiphenyl ($^{13}C_{12}$,99%)**	**4**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-5095-3 EC-5095-1.2	**2,4′-Dichlorobiphenyl ($^{13}C_{12}$,99%)**	**8**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4165-3 EC-4165-1.2	**2,5-Dichlorobiphenyl ($^{13}C_{12}$,99%)**	**9**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1402-3 EC-1402-1.2	**4,4′-Dichlorobiphenyl ($^{13}C_{12}$,99%)**	**15**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4909-3 EC-4909-1.2	**2,2′,6-Trichlorobiphenyl ($^{13}C_{12}$,99%)**	**19**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1413-3 EC-1413-1.2	**2,4,4′-Trichlorobiphenyl ($^{13}C_{12}$,99%)**	**28**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4163-3 EC-4163-1.2	**2,4′,6-Trichlorobiphenyl ($^{13}C_{12}$,99%)**	**32**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4901-3 EC-4901-1.2	**3,4,4′-Trichlorobiphenyl ($^{13}C_{12}$,99%)**	**37**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1434-3 EC-1434-1.2	**2,2′,4,4′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**47**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1424-3 EC-1424-1.2	**2,2′,5,5′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**52**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4912-3 EC-4912-1.2	**2,2′,6,6′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**54**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4078-3 EC-4078-1.2	**2,3,4,4′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**60**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4914-3 EC-4914-1.2	**2,3′,4′,5-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**70**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1404-3 EC-1404-1.2	**3,3′,4,4′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**77**		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	**3,3′,4,4′-Tetrachlorobiphenyl (D_6,98%)**	**77**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-5048-3 EC-5048-1.2	**3,3′,4,5′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**79**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1414-3 EC-1414-1.2	**3,3′,5,5′-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**80**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1412-3 EC-1412-1.2	**3,4,4′,5-Tetrachlorobiphenyl ($^{13}C_{12}$,99%)**	**81**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4929-3 EC-4929-1.2	**2,2′,3,4,4′-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**85**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1428-3 EC-1428-1.2	**2,2′,3′,4,5-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**97**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1405-3 EC-1405-1.2	**2,2′,4,5,5′-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**101**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4910-3 EC-4910-1.2	**2,2′,4,6,6′-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**104**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1420-3 EC-1420-1.2	**2,3,3′,4,4′-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**105**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1415-3 EC-1415-1.2	**2,3,3′,5,5′-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**111**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4902-3 EC-4902-1.2	**2,3,4,4′,5-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**114**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1435-3 EC-1435-1.2	**2,3′,4,4′,5-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**118**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-4904-3 EC-4904-1.2	**2′,3,4,4′,5-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**123**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1425-3 EC-1425-1.2	**3,3′,4,4′,5-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**126**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1421-3 EC-1421-1.2	**3,3′,4,5,5′-Pentachlorobiphenyl ($^{13}C_{12}$,99%)**	**127**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1411-3 EC-1411-1.2	**2,2′,3,3′,4,4′-Hexachlorobiphenyl ($^{13}C_{12}$,99%)**	**128**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1436-3 EC-1436-1.2	**2,2′,3,4,4′,5′-Hexachlorobiphenyl ($^{13}C_{12}$,99%)**	**138**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1426-3 EC-1426-1.2	**2,2′,3,4,5,5′-Hexachlorobiphenyl ($^{13}C_{12}$,99%)**	**141**		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	**2,2′,4,4′,5,5′-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**153**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4167-3 EC-4167-1.2	**2,2′,4,4′,6,6′-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**155**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1422-3 EC-1422-1.2	**2,3,3′,4,4′,5-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**156**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-4051-3 EC-4051-1.2	**2,3,3′,4,4′,5′-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**157**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
NEW EC-5336-3 NEW EC-5336-1.2	**2,3,3′,4,5,5′-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**159**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4050-3 EC-4050-1.2	**2,3′,4,4′,5,5′-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**167**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1416-3 EC-1416-1.2	**3,3′,4,4′,5,5′-Hexachlorobiphenyl** **($^{13}C_{12}$,99%)**	**169**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4905-3 EC-4905-1.2	**2,2′,3,3′,4,4′,5-Heptachlorobiphenyl** **($^{13}C_{12}$,99%)**	**170**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1417-3 EC-1417-1.2	**2,2′,3,3′,5,5′,6-Heptachlorobiphenyl** **($^{13}C_{12}$,99%)**	**178**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1407-3 EC-1407-1.2	**2,2′,3,4,4′,5,5′-Heptachlorobiphenyl** **($^{13}C_{12}$,99%)**	**180**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4913-3 EC-4913-1.2	**2,2′,3,4′,5,6,6′-Heptachlorobiphenyl** **($^{13}C_{12}$,99%)**	**188**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1409-3 EC-1409-1.2	**2,3,3′,4,4′,5,5′-Heptachlorobiphenyl** **($^{13}C_{12}$,99%)**	**189**		40 ± 2 µg/mL in Nonane *High Purity	3 mL 1.2 mL
EC-1418-3 EC-1418-1.2	**2,2′,3,3′,4,4′,5,5′-Octachlorobiphenyl** **($^{13}C_{12}$,99%)**	**194**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1408-3 EC-1408-1.2	**2,2′,3,3′,5,5′,6,6′-Octachlorobiphenyl** **($^{13}C_{12}$,99%)**	**202**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4199-3 EC-4199-1.2	**2,3,3′,4,4′,5,5′,6-Octachlorobiphenyl** **($^{13}C_{12}$,99%)**	**205**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-4900-3 EC-4900-1.2	**2,2′,3,3′,4,4′,5,5′,6-Nonachlorobiphenyl** **($^{13}C_{12}$,99%)**	**206**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1419-3 EC-1419-1.2	**2,2′,3,3′,4,5,5′,6,6′-Nonachlorobiphenyl** **($^{13}C_{12}$,99%)**	**208**		40 ± 2 µg/mL in Nonane	3 mL 1.2 mL
EC-1410-3 EC-1410-1.2 NEW EC-1410-10	**Decachlorobiphenyl** **($^{13}C_{12}$,99%)**	**209**		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	**2-MonoCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-3-CS	**4-MonoCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-4-CS	**2,2′-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-8-CS	**2,4′-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-9-CS	**2,5-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-10-CS	**2,6-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-11-CS	**3,3′-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-12-CS	**3,4-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-15-CS	**4,4′-DiCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-18-CS	**2,2′,5-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-19-CS	**2,2′,6-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-28-CS	**2,4,4′-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-30-CS	**2,4,6-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-31-CS	**2,4′,5-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-32-CS	**2,4′,6-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-33-CS	**2′,3,4-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-35-CS	**3,3′,4-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-37-CS	**3,4,4′-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-38-CS	**3,4,5-TriCB**	100 ± 5 µg/mL in Isooctane	1 2 mL
	PCB-39-CS	**3,4′,5-TriCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-44-CS	**2,2′,3,5′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-47-CS	**2,2′,4,4′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-49-CS	**2,2′,4,5′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-52-CS	**2,2′,5,5′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-54-CS	**2,2′,6,6′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-57-CS	**2,3,3′,5-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-60-CS	**2,3,4,4′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-66-CS	**2,3′,4,4′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-70-CS	**2,3′,4′,5-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-74-CS	**2,4,4′,5-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-77-CS	**3,3′,4,4′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-78-CS	**3,3′,4,5-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-79-CS	**3,3′,4,5′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-80-CS	**3,3′,5,5′-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-81-CS	**3,4,4′,5-TetraCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-85-CS	**2,2′,3,4,4′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-87-CS	**2,2′,3,4,5′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-95-CS	**2,2′,3,5′,6-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-97-CS	**2,2′,3′,4,5-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-99-CS	**2,2′,4,4′,5-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-101-CS	**2,2′,4,5,5′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-104-CS	**2,2′,4,6,6′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-105-CS	**2,3,3′,4,4′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-110-CS	**2,3,3′,4′,6-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-111-CS	**2,3,3′,5,5′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-112-CS	**2,3,3′,5,6-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-114-CS	**2,3,4,4′,5-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-118-CS	**2,3′,4,4′,5-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-123-CS	**2′,3,4,4′,5-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-126-CS	**3,3′,4,4′,5-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-127-CS	**3,3′,4,5,5′-PentaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-128-CS	**2,2′,3,3′,4,4′-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-138-CS	**2,2′,3,4,4′,5′-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-141-CS	**2,2′,3,4,5,5′-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-146-CS	**2,2′,3,4′,5,5′-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-149-CS	**2,2′,3,4′,5′,6-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL

Unlabeled "Certified" Individual PCB Standards

	Catalog #	Compound	Concentration	Amount
	PCB-151-CS	**2,2',3,5,5',6-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-153-CS	**2,2',4,4',5,5'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-155-CS	**2,2',4,4',6,6'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-156-CS	**2,3,3',4,4',5-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-157-CS	**2,3,3',4,4',5'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-158-CS	**2,3,3',4,4',6-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-159-CS	**2,3,3',4,5,5'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-162-CS	**2,3,3',4',5,5'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-167-CS	**2,3',4,4',5,5'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-169-CS	**3,3',4,4',5,5'-HexaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-170-CS	**2,2',3,3',4,4',5-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-172-CS	**2,2',3,3',4,5,5'-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-174-CS	**2,2',3,3',4,5,6'-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-177-CS	**2,2',3,3',4',5,6-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-178-CS	**2,2',3,3',5,5',6-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-180-CS	**2,2',3,4,4',5,5'-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-187-CS	**2,2',3,4',5,5',6-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-188-CS	**2,2',3,4',5,6,6'-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-189-CS	**2,3,3',4,4',5,5'-HeptaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-194-CS	**2,2',3,3',4,4',5,5'-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-195-CS	**2,2',3,3',4,4',5,6-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-196-CS	**2,2',3,3',4,4',5',6-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-198-CS	**2,2',3,3',4,5,5',6-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
NEW	PCB-199-CS	**2,2',3,3',4,5,6,6'-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-201-CS	**2,2',3,3',4,5,5',6'-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-202-CS	**2,2',3,3',5,5',6,6'-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-203-CS	**2,2',3,4,4',5,5',6-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-205-CS	**2,3,3',4,4',5,5',6-OctaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-206-CS	**2,2',3,3',4,4',5,5',6-NonaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-208-CS	**2,2',3,3',4,5,5',6,6'-NonaCB**	100 ± 5 µg/mL in Isooctane	1.2 mL
	PCB-209-CS	**DecaCB**	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 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	**Method 1668A/B Calibration Solutions [CS1-CS5]**	Set of 5 x 0.2 mL in Nonane
EC-4976-0.2	**Method 1668A/B High Sensitivity Calibration Solution [CS0.2]** (Not included in EC-4976)	0.2 mL in Nonane
EC-4976-1	**Method 1668A/B Calibration Solution [CS1]**	0.2 mL in Nonane
EC-4976-2	**Method 1668A/B Calibration Solution [CS2]**	0.2 mL in Nonane
EC-4976-3	**Method 1668A/B Calibration Verification Solution [CS3]**	0.2 mL in Nonane
EC-4976-3-4	**Method 1668A/B Calibration Verification Solution [CS3]**	Set of 4 x 0.2 mL in Nonane
EC-4976-4	**Method 1668A/B Calibration Solution [CS4]**	0.2 mL in Nonane
EC-4976-5	**Method 1668A/B Calibration Solution [CS5]**	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

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

(continued on next page)

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
2-MonoCB ($^{13}C_{12}$,99%)	**1L**	100	100	100	100	100	100
4-MonoCB ($^{13}C_{12}$,99%)	**3L**	100	100	100	100	100	100
2,2′-DiCB ($^{13}C_{12}$,99%)	**4L**	100	100	100	100	100	100
4,4′-DiCB ($^{13}C_{12}$,99%)	**15L**	100	100	100	100	100	100
2,2′,6-TriCB ($^{13}C_{12}$,99%)	**19L**	100	100	100	100	100	100
3,4,4′-TriCB ($^{13}C_{12}$,99%)	**37L**	100	100	100	100	100	100
2,2′,6,6′-TetraCB ($^{13}C_{12}$,99%)	**54L**	100	100	100	100	100	100
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77L**	100	100	100	100	100	100
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81L**	100	100	100	100	100	100
2,2′,4,6,6′-PentaCB ($^{13}C_{12}$,99%)	**104L**	100	100	100	100	100	100
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105L**	100	100	100	100	100	100
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114L**	100	100	100	100	100	100
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118L**	100	100	100	100	100	100
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123L**	100	100	100	100	100	100
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126L**	100	100	100	100	100	100
2,2′,4,4′,6,6′-HexaCB ($^{13}C_{12}$,99%)	**155L**	100	100	100	100	100	100
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156L**	100	100	100	100	100	100
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157L**	100	100	100	100	100	100
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167L**	100	100	100	100	100	100
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169L**	100	100	100	100	100	100
2,2′,3,4′,5,6,6′-HeptaCB ($^{13}C_{12}$,99%)	**188L**	100	100	100	100	100	100
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189L**	100	100	100	100	100	100
2,2′,3,3′,5,5′,6,6′-OctaCB ($^{13}C_{12}$,99%)	**202L**	100	100	100	100	100	100
2,3,3′,4,4′,5,5′,6-OctaCB ($^{13}C_{12}$,99%)	**205L**	100	100	100	100	100	100
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206L**	100	100	100	100	100	100
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208L**	100	100	100	100	100	100
DecaCB ($^{13}C_{12}$,99%)	**209L**	100	100	100	100	100	100
Labeled Cleanup							
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28L**	100	100	100	100	100	100
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111L**	100	100	100	100	100	100
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178L**	100	100	100	100	100	100
Labeled Injection Internal							
2,5-DiCB ($^{13}C_{12}$,99%)	**9L**	100	100	100	100	100	100
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52L**	100	100	100	100	100	100
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101L**	100	100	100	100	100	100
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138L**	100	100	100	100	100	100
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194L**	100	100	100	100	100	100

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

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

Labeled	IUPAC	(ng/mL)
2-MonoCB ($^{13}C_{12}$,99%)	**1L**	1000
4-MonoCB ($^{13}C_{12}$,99%)	**3L**	1000
2,2′-DiCB ($^{13}C_{12}$,99%)	**4L**	1000
4,4′-DiCB ($^{13}C_{12}$,99%)	**15L**	1000
2,2′,6-TriCB ($^{13}C_{12}$,99%)	**19L**	1000
3,4,4′-TriCB ($^{13}C_{12}$,99%)	**37L**	1000
2,2′,6,6′-TetraCB ($^{13}C_{12}$,99%)	**54L**	1000
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77L**	1000
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81L**	1000
2,2′,4,6,6′-PentaCB ($^{13}C_{12}$,99%)	**104L**	1000
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105L**	1000
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114L**	1000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118L**	1000
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123L**	1000
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126L**	1000
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**155L**	1000
2,2′,4,4′,6,6′-HexaCB ($^{13}C_{12}$,99%)	**156L**	1000
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157L**	1000
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167L**	1000
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169L**	1000
2,2′,3,4′,5,6,6′-HeptaCB ($^{13}C_{12}$,99%)	**188L**	1000
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189L**	1000
2,2′,3,3′,5,5′,6,6′-OctaCB ($^{13}C_{12}$,99%)	**202L**	1000
2,3,3′,4,4′,5,5′,6-OctaCB ($^{13}C_{12}$,99%)	**205L**	1000
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206L**	1000
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208L**	1000
DecaCB ($^{13}C_{12}$,99%)	**209L**	1000

EC-4978	**Method 1668A/B Labeled Cleanup Standard Solution**	1.2 mL in Nonane

Labeled		
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28L**	1000
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111L**	1000
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178L**	1000

EC-4979	**Method 1668A/B Labeled Injection Internal Standard Solution**	1.2 mL in Nonane

Labeled		
2,5-DiCB ($^{13}C_{12}$,99%)	**9L**	5000
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52L**	5000
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101L**	5000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138L**	5000
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194L**	5000

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

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

Unlabeled	IUPAC	(ng/mL)
2-MonoCB	**1**	2000
4-MonoCB	**3**	2000
2,2′-DiCB	**4**	2000
4,4′-DiCB	**15**	2000
2,2′,6-TriCB	**19**	2000
3,4,4′-TriCB	**37**	2000
2,2′,6,6′-TetraCB	**54**	2000
3,3′,4,4′-TetraCB	**77**	2000
3,4,4′,5-TetraCB	**81**	2000
2,2′,4,6,6′-PentaCB	**104**	2000
2,3,3′,4,4′-PentaCB	**105**	2000
2,3,4,4′,5-PentaCB	**114**	2000
2,3′,4,4′,5-PentaCB	**118**	2000
2′,3,4,4′,5-PentaCB	**123**	2000
3,3′,4,4′,5-PentaCB	**126**	2000
2,2′,4,4′,6,6′-HexaCB	**155**	2000
2,3,3′,4,4′,5-HexaCB	**156**	2000
2,3,3′,4,4′,5′-HexaCB	**157**	2000
2,3′,4,4′,5,5′-HexaCB	**167**	2000
3,3′,4,4′,5,5′-HexaCB	**169**	2000
2,2′,3,4′,5,6,6′-HeptaCB	**188**	2000
2,3,3′,4,4′,5,5′-HeptaCB	**189**	2000
2,2′,3,3′,5,5′,6,6′-OctaCB	**202**	2000
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

CEN Method EN-1948-4 WHO PCB Standard Mixtures

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

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
3,4,4′,5-TetraCB	**81**	0.1	1	10	50	200	800
3,3′,4,4′-TetraCB	**77**	0.1	1	10	50	200	800
3,3′,4,4′,5-PentaCB	**126**	0.1	1	10	50	200	800
3,3′,4,4′,5,5′-HexaCB	**169**	0.1	1	10	50	200	800
2,3,3′,4,4′-PentaCB	**105**	0.1	1	10	50	200	800
2,3,4,4′,5-PentaCB	**114**	0.1	1	10	50	200	800
2,3′,4,4′,5-PentaCB	**118**	0.6	6	60	300	1200	4800
2′,3,4,4′,5-PentaCB	**123**	0.1	1	10	50	200	800
2,3,3′,4,4′,5-HexaCB	**156**	0.1	1	10	50	200	800
2,3,3′,4,4′,5′-HexaCB	**157**	0.1	1	10	50	200	800
2,3′,4,4′,5,5′-HexaCB	**167**	0.1	1	10	50	200	800
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.1	1	10	50	200	800
Labeled Sampling Standards							
2,3,4,4′-TetraCB ($^{13}C_{12}$,99%)	**60**	10	10	10	10	10	10
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	10	10	10	10	10	10
2,3,3′,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**159**	10	10	10	10	10	10
Labeled Extraction Standards							
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	10	10	10	10	10	10
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	10	10	10	10	10	10
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10	10
Labeled Recovery Standards							
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10

CEN Method EN-1948-4 WHO PCB Standard Mixtures

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

Labeled	IUPAC	EC-5370 (ng/mL)	EC-5370-1/10X-10 (ng/mL)
2,3,4,4′-TetraCB ($^{13}C_{12}$,99%)	**60**	100	10
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	100	10
2,3,3′,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**159**	100	10

	Catalog #	Compound	Amount
NEW	EC-5372	**EN-1948-4 WHO PCB Extraction Standard**	1.2 mL in Nonane
NEW	EC-5372-1/10X-10	**EN-1948-4 WHO PCB Extraction Standard (1/10 concentration)**	10 mL in Nonane

Labeled	IUPAC	EC-5372	EC-5372-1/10X-10
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	100	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	100	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	100	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	100	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	100	10
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	100	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	100	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	100	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	100	10
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	100	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	100	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	100	10

	Catalog #	Compound	Amount
NEW	EC-5371	**EN-1948-4 PCB Recovery Standard**	1.2 mL in Nonane

Labeled	IUPAC	
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	100
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	100
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	100

CEN Method EN-1948-4 Marker PCB Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
2,4,4′-TriCB	**28**	0.1	1	10	100	500	5000
2,2′,5,5′-TetraCB	**52**	0.1	1	10	100	500	5000
2,2′,4,5,5′-PentaCB	**101**	0.1	1	10	100	500	5000
2,2′,3,4,4′,5′-HexaCB	**138**	0.1	1	10	100	500	5000
2,2′,4,4′,5,5′-HexaCB	**153**	0.1	1	10	100	500	5000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	0.1	1	10	100	500	5000
Labeled Sampling Standards							
2,3,4,4′-TetraCB ($^{13}C_{12}$,99%)	**60**	10	10	10	10	10	10
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	10	10	10	10	10	10
2,3,3′,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**159**	10	10	10	10	10	10
Labeled Extraction Standards							
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	100	100	100	100	100	100
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	100	100	100	100	100	100
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	100	100	100	100	100	100
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	100	100	100	100	100	100
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	100	100	100	100	100	100
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	100	100	100	100	100	100
Labeled Recovery Standards							
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10

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

Labeled		EC-5379 (ng/mL)	EC-5379-1/10X-10 (ng/mL)
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	1000	100
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	1000	100
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	1000	100
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	1000	100
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	1000	100
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	1000	100

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

Labeled		EC-5370	EC-5370-1/10X-10
2,3,4,4′-TetraCB ($^{13}C_{12}$,99%)	**60**	100	10
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	100	10
2,3,3′,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	100	10

NEW	EC-5371	**EN-1948-4 PCB Recovery Standard**	1.2 mL in Nonane

Labeled		
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	100
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	100
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	100

JIS PCB Methods Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
3,3′,4,4′-TetraCB	**77**	1	5	25	100	500
3,4,4′,5-TetraCB	**81**	1	5	25	100	500
2,3,3′,4,4′-PentaCB	**105**	1	5	25	100	500
2,3,4,4′,5-PentaCB	**114**	1	5	25	100	500
2,3′,4,4′,5-PentaCB	**118**	1	5	25	100	500
2′,3,4,4′,5-PentaCB	**123**	1	5	25	100	500
3,3′,4,4′,5-PentaCB	**126**	1	5	25	100	500
2,3,3′,4,4′,5-HexaCB	**156**	1	5	25	100	500
2,3,3′,4,4′,5′-HexaCB	**157**	1	5	25	100	500
2,3′,4,4′,5,5′-HexaCB	**167**	1	5	25	100	500
3,3′,4,4′,5,5′-HexaCB	**169**	1	5	25	100	500
2,2′,3,3′,4,4′,5-HeptaCB	**170**	1	5	25	100	500
2,2′,3,4,4′,5,5′-HeptaCB	**180**	1	5	25	100	500
2,3,3′,4,4′,5,5′-HeptaCB	**189**	1	5	25	100	500
Labeled						
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10

EC-4970-A	**JIS PCB Type 1 Syringe Standard Solution**	3 mL in Nonane

Labeled		(ng/mL)
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	2000

JIS PCB Methods Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS0.4H	CS1H	CS2H	CS3H	CS4H	CS5H	CS6H
3,4,4′,5-TetraCB	**81**	0.1	0.25	1	5	20	100	500
3,3′,4,4′-TetraCB	**77**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5-PentaCB	**126**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5,5′-HexaCB	**169**	0.1	0.25	1	5	20	100	500
2′,3,4,4′,5-PentaCB	**123**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5-PentaCB	**118**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′-PentaCB	**105**	0.1	0.25	1	5	20	100	500
2,3,4,4′,5-PentaCB	**114**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5,5′-HexaCB	**167**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5-HexaCB	**156**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5′-HexaCB	**157**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.1	0.25	1	5	20	100	500
2,2′,3,3′,4,4′,5-HeptaCB	**170**	0.1	0.25	1	5	20	100	500
2,2′,3,4,4′,5,5′-HeptaCB	**180**	0.1	0.25	1	5	20	100	500
Labeled								
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	20	20	20	20	20	20	20
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	20	20	20	20	20	20	20
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	20	20	20	20	20	20	20
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10	10
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10	10	10	10
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	10	10	10	10	10	10	10
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	10	10	10	10	10	10	10

JIS PCB Methods Standard Mixtures

	Catalog #	Compound	Amount
NEW	EC-5324	**Modified JIS PCB Cleanup Spike**	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	50
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	50
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	50
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	100
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	50
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	100
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	50
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	50
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	100
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	50
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	50
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	50
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	50
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	50

NEW	EC-5325	**Modified JIS PCB Syringe Spike**	1.2 mL in Nonane
NEW	EC-5325-0.2X	**Modified JIS PCB Syringe Spike**	10 mL in Nonane
NEW	EC-5325-20X	**Modified JIS PCB Syringe Spike**	1.2 mL in Nonane

Labeled		EC-5325	EC-5325-0.2X	EC-5325-20X
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	50	10	1000
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	50	10	1000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	50	10	1000
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	50	10	1000

NEW	EC-5326	**Modified JIS PCB Sampling Spike**	1.2 mL in Nonane

Labeled		
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	50

JIS PCB Methods Standard Mixtures

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

Unlabeled	IUPAC	CS0.4	CS1	CS2	CS3	CS4	CS5	CS6
3,4,4′,5-TetraCB	**81**	0.1	0.25	1	5	20	100	500
3,3′,4,4′-TetraCB	**77**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5-PentaCB	**126**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5,5′-HexaCB	**169**	0.1	0.25	1	5	20	100	500
2′,3,4,4′,5-PentaCB	**123**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5-PentaCB	**118**	0.2	0.5	2	10	40	200	1000
2,3,3′,4,4′-PentaCB	**105**	0.2	0.5	2	10	40	200	1000
2,3,4,4′,5-PentaCB	**114**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5,5′-HexaCB	**167**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5-HexaCB	**156**	0.2	0.5	2	10	40	200	1000
2,3,3′,4,4′,5′-HexaCB	**157**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.1	0.25	1	5	20	100	500
2,2′,3,3′,4,4′,5-HeptaCB	**170**	0.1	0.25	1	5	20	100	500
2,2′,3,4,4′,5,5′-HeptaCB	**180**	0.1	0.25	1	5	20	100	500
Labeled								
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	20	20	20	20	20	20	20
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	20	20	20	20	20	20	20
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	20	20	20	20	20	20	20
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10	10
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10	10	10	10
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	10	10	10	10	10	10	10
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	10	10	10	10	10	10	10

JIS PCB Methods Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS0.4	CS1	CS2	CS3	CS4	CS5	CS6
3,4,4′,5-TetraCB	**81**	0.1	0.25	1	5	20	100	500
3,3′,4,4′-TetraCB	**77**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5-PentaCB	**126**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5,5′-HexaCB	**169**	0.1	0.25	1	5	20	100	500
2′,3,4,4′,5-PentaCB	**123**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5-PentaCB	**118**	0.2	0.5	2	10	40	200	1000
2,3,3′,4,4′-PentaCB	**105**	0.2	0.5	2	10	40	200	1000
2,3,4,4′,5-PentaCB	**114**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5,5′-HexaCB	**167**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5-HexaCB	**156**	0.2	0.5	2	10	40	200	1000
2,3,3′,4,4′,5′-HexaCB	**157**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.1	0.25	1	5	20	100	500
Labeled								
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	4	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	4	10	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	4	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	4	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	4	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	8	20	20	20	20	20	20
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	8	20	20	20	20	20	20
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	4	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	4	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	8	20	20	20	20	20	20
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	4	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	4	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	4	10	10	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	4	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	4	10	10	10	10	10	10
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	4	10	10	10	10	10	10
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	4	10	10	10	10	10	10

JIS PCB Methods Standard Mixtures

	Catalog #	Compound	Amount
NEW	EC-5419	**Modified JIS PCB Alternate B Cleanup Solution**	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	50
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	50
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	50
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	100
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	50
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	100
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	50
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	50
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	100
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	50
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	50
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	50

	Catalog #	Compound	Amount
NEW	EC-5420	**Modified JIS PCB Alternate B Syringe Spike**	1.2 mL in Nonane

Labeled		
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	50
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	50
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	50
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	50

WHO "Dioxin-Like" PCB Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
3,3',4,4'-TetraCB	**77**	1	5	25	100	500
3,4,4',5-TetraCB	**81**	1	5	25	100	500
2,3,3',4,4'-PentaCB	**105**	1	5	25	100	500
2,3,4,4',5-PentaCB	**114**	1	5	25	100	500
2,3',4,4',5-PentaCB	**118**	1	5	25	100	500
2',3,4,4',5-PentaCB	**123**	1	5	25	100	500
3,3',4,4',5-PentaCB	**126**	1	5	25	100	500
2,3,3',4,4',5-HexaCB	**156**	1	5	25	100	500
2,3,3',4,4',5'-HexaCB	**157**	1	5	25	100	500
2,3',4,4',5,5'-HexaCB	**167**	1	5	25	100	500
3,3',4,4',5,5'-HexaCB	**169**	1	5	25	100	500
2,2',3,3',4,4',5-HeptaCB	**170**	1	5	25	100	500
2,2',3,4,4',5,5'-HeptaCB	**180**	1	5	25	100	500
2,3,3',4,4',5,5'-HeptaCB	**189**	1	5	25	100	500
Labeled						
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	100	100	100	100	100
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	100	100	100	100	100
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	100	100	100	100	100
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	100	100	100	100	100
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	100	100	100	100	100
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	100	100	100	100	100
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	100	100	100	100	100
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	100	100	100	100	100
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	100	100	100	100	100
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	100	100	100	100	100
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	100	100	100	100	100
2,2',3,3',4,4',5-HeptaCB ($^{13}C_{12}$,99%)	**170**	100	100	100	100	100
2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**180**	100	100	100	100	100
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	100	100	100	100	100

WHO "Dioxin-Like" PCB Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
3,3',4,4'-TetraCB	**77**	0.5	2	10	50	250
3,4,4',5-TetraCB	**81**	0.5	2	10	50	250
3,3',4,4',5-PentaCB	**126**	0.5	2	10	50	250
3,3',4,4',5,5'-HexaCB	**169**	0.5	2	10	50	250
2',3,4,4',5-PentaCB	**123**	0.5	2	10	50	250
2,3',4,4',5-PentaCB	**118**	0.5	2	10	50	250
2,3,3',4,4'-PentaCB	**105**	0.5	2	10	50	250
2,3,4,4',5-PentaCB	**114**	0.5	2	10	50	250
2,3',4,4',5,5'-HexaCB	**167**	0.5	2	10	50	250
2,3,3',4,4',5-HexaCB	**156**	0.5	2	10	50	250
2,3,3',4,4',5'-HexaCB	**157**	0.5	2	10	50	250
2,3,3',4,4',5,5'-HeptaCB	**189**	0.5	2	10	50	250
2,2',3,4,4',5,5'-HeptaCB	**180**	0.5	2	10	50	250
2,2',3,3',4,4',5-HeptaCB	**170**	0.5	2	10	50	250
Labeled						
3,3',4,5'-TetraCB ($^{13}C_{12}$,99%)	**79**	10	10	10	10	10
2,3',4',5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10
2,3,3',5,5'-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10
2,2',3,4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10	10
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10	10
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	10	10	10	10	10
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	10	10	10	10	10
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10
2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10
2,2',3,3',4,4',5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10

WHO "Dioxin-Like" PCB Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
3,3',4,4'-TetraCB	**77**	0.4	2	10	40	200
3,4,4',5-TetraCB	**81**	0.4	2	10	40	200
3,3',4,4',5-PentaCB	**126**	0.4	2	10	40	200
3,3',4,4',5,5'-HexaCB	**169**	0.4	2	10	40	200
2,3,3',4,4'-PentaCB	**105**	0.4	2	10	40	200
2,3,4,4',5-PentaCB	**114**	0.4	2	10	40	200
2,3',4,4',5-PentaCB	**118**	0.4	2	10	40	200
2',3,4,4',5-PentaCB	**123**	0.4	2	10	40	200
2,3,3',4,4',5-HexaCB	**156**	0.4	2	10	40	200
2,3,3',4,4',5'-HexaCB	**157**	0.4	2	10	40	200
2,3',4,4',5,5'-HexaCB	**167**	0.4	2	10	40	200
2,3,3',4,4',5,5'-HeptaCB	**189**	0.4	2	10	40	200
2,2',3,3',4,4',5-HeptaCB	**170**	0.4	2	10	40	200
2,2',3,4,4',5,5'-HeptaCB	**180**	0.4	2	10	40	200
Labeled						
2,3',4',5-TetraCB ($^{13}C_{12}$,99%)	**70**	20	20	20	20	20
3,3',4,5'-TetraCB ($^{13}C_{12}$,99%)	**79**	20	20	20	20	20
2,3,3',5,5'-PentaCB ($^{13}C_{12}$,99%)	**111**	20	20	20	20	20
2,2',3,4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**138**	20	20	20	20	20
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	20	20	20	20	20
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	20	20	20	20	20
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	20	20	20	20	20
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	20	20	20	20	20
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	20	20	20	20	20
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	20	20	20	20	20
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	20	20	20	20	20
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	20	20	20	20	20
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	20	20	20	20	20
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	20	20	20	20	20
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	20	20	20	20	20
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	20	20	20	20	20
2,2',3,3',4,4',5-HeptaCB ($^{13}C_{12}$,99%)	**170**	20	20	20	20	20
2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**180**	20	20	20	20	20

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

WHO "Dioxin-Like" PCB Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
3,3',4,4'-TetraCB	**77**	0.2	1	5	20	100
3,4,4',5-TetraCB	**81**	0.2	1	5	20	100
2,3,3',4,4'-PentaCB	**105**	0.2	1	5	20	100
2,3,4,4',5-PentaCB	**114**	0.2	1	5	20	100
2,3',4,4',5-PentaCB	**118**	0.2	1	5	20	100
2',3,4,4',5-PentaCB	**123**	0.2	1	5	20	100
3,3',4,4',5-PentaCB	**126**	0.2	1	5	20	100
2,3,3',4,4',5-HexaCB	**156**	0.2	1	5	20	100
2,3,3',4,4',5'-HexaCB	**157**	0.2	1	5	20	100
2,3',4,4',5,5'-HexaCB	**167**	0.2	1	5	20	100
3,3',4,4',5,5'-HexaCB	**169**	0.2	1	5	20	100
2,2',3,3',4,4',5-HeptaCB	**170**	0.2	1	5	20	100
2,2',3,4,4',5,5'-HeptaCB	**180**	0.2	1	5	20	100
2,3,3',4,4',5,5'-HeptaCB	**189**	0.2	1	5	20	100
Labeled						
3,3',4,5'-TetraCB ($^{13}C_{12}$,99%)	**79**	10	10	10	10	10
2,3',4',5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10
2,3,3',5,5'-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10
2,2',3,4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10	10
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	10	10	10	10	10
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10	10
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	10	10	10	10	10
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10
2,2',3,3',4,4',5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10
2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10

WHO "Dioxin-Like" PCB Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
3,4,4′,5-TetraCB	**81**	0.2	0.5	2	10	50	200
3,3′,4,4′-TetraCB	**77**	0.2	0.5	2	10	50	200
3,3′,4,4′,5-PentaCB	**126**	0.2	0.5	2	10	50	200
3,3′,4,4′,5,5′-HexaCB	**169**	0.2	0.5	2	10	50	200
2′,3,4,4′,5-PentaCB	**123**	0.2	0.5	2	10	50	200
2,3′,4,4′,5-PentaCB	**118**	0.2	0.5	2	10	50	200
2,3,3′,4,4′-PentaCB	**105**	0.2	0.5	2	10	50	200
2,3,4,4′,5-PentaCB	**114**	0.2	0.5	2	10	50	200
2,3′,4,4′,5,5′-HexaCB	**167**	0.2	0.5	2	10	50	200
2,3,3′,4,4′,5-HexaCB	**156**	0.2	0.5	2	10	50	200
2,3,3′,4,4′,5′-HexaCB	**157**	0.2	0.5	2	10	50	200
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.2	0.5	2	10	50	200
2,2′,3,3′,4,4′,5-HeptaCB	**170**	0.2	0.5	2	10	50	200
2,2′,3,4,4′,5,5′-HeptaCB	**180**	0.2	0.5	2	10	50	200
Labeled							
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10	10
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10	10	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	10	10	10	10	10	10
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	10	10	10	10	10	10
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10	10	10
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	10	10	10	10	10	10
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	10	10	10	10	10	10

WHO "Dioxin-Like" PCB Mixtures

Catalog #	Compound	Amount
EC-4937	**WHO Coplanar and Mono-Ortho PCBs**	3 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	1000
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	1000
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	1000
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	1000
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	1000
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	1000
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	1000
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	1000
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	1000
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	1000
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	1000
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	1000

EC-4995	**WHO Coplanar and Mono-Ortho PCBs with PCB 170/180**	1.2 mL in Nonane

Labeled		
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	1000
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	1000
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	1000
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	1000
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	1000
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	1000
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	1000
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	1000
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	1000
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	1000
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	1000
2,2',3,3',4,4',5-HeptaCB ($^{13}C_{12}$,99%)	**170**	1000
2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**180**	1000
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	1000

EC-5045	**WHO PCB + PCB-170 + PCB-180 Cleanup Standard**	1.2 mL in Nonane

Labeled		
3,3',4,4'-TetraCB ($^{13}C_{12}$,99%)	**77**	2000
3,4,4',5-TetraCB ($^{13}C_{12}$,99%)	**81**	2000
2,3,3',4,4'-PentaCB ($^{13}C_{12}$,99%)	**105**	2000
2,3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**114**	2000
2,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**118**	2000
2',3,4,4',5-PentaCB ($^{13}C_{12}$,99%)	**123**	2000
3,3',4,4',5-PentaCB ($^{13}C_{12}$,99%)	**126**	2000
2,3,3',4,4',5-HexaCB ($^{13}C_{12}$,99%)	**156**	2000
2,3,3',4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**157**	2000
2,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**167**	2000
3,3',4,4',5,5'-HexaCB ($^{13}C_{12}$,99%)	**169**	2000
2,2',3,3',4,4',5-HeptaCB ($^{13}C_{12}$,99%)	**170**	2000
2,2',3,4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**180**	2000
2,3,3',4,4',5,5'-HeptaCB ($^{13}C_{12}$,99%)	**189**	2000

WHO "Dioxin-Like" PCB Mixtures

	Catalog #	Compound	Amount
NEW	EC-5047	**WHO PCB and PCB-170/180 Sampling Standard**	1.2 mL in Nonane
NEW	EC-5180	**PCB Sampling Spike**	1.2 mL in Nonane

Labeled	IUPAC	EC-5047 (ng/mL)	EC-5180 (ng/mL)
3,3',4,5'-TetraCB ($^{13}C_{12}$,99%)	**79**	2000	100

NEW	EC-5181	**PCB Syringe Spike**	1.2 mL in Nonane
NEW	EC-5181-10X-1.2	**PCB Syringe Spike**	1.2 mL in Nonane

Labeled	IUPAC	EC-5181	EC-5181-10X-1.2
2,3',4',5-TetraCB ($^{13}C_{12}$,99%)	**70**	100	1000
2,3,3',5,5'-PentaCB ($^{13}C_{12}$,99%)	**111**	100	1000
2,2',3,4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**138**	100	1000

NEW	EC-5397	**Co-PCB Syringe Spike**	1.2 mL in Nonane

Labeled	IUPAC	
2,3',4',5-TetraCB ($^{13}C_{12}$,99%)	**70**	20
2,3,3',5,5'-PentaCB ($^{13}C_{12}$,99%)	**111**	20
2,2',3,4,4',5'-HexaCB ($^{13}C_{12}$,99%)	**138**	20
2,2',3,3',5,5',6-HeptaCB ($^{13}C_{12}$,99%)	**178**	20

EC-4935	**WHO Coplanar and Mono-Ortho PCBs**	1.2 mL in Isooctane	
EC-4935-A	**WHO Coplanar and Mono-Ortho PCBs**	3 mL in Isooctane	

Unlabeled	IUPAC	EC-4935	EC-4935-A
3,3',4,4'-TetraCB	**77**	2000	1000
3,4,4',5-TetraCB	**81**	2000	1000
2,3,3',4,4'-PentaCB	**105**	2000	1000
2,3,4,4',5-PentaCB	**114**	2000	1000
2,3',4,4',5-PentaCB	**118**	2000	1000
2',3,4,4',5-PentaCB	**123**	2000	1000
3,3',4,4',5-PentaCB	**126**	2000	1000
2,3,3',4,4',5-HexaCB	**156**	2000	1000
2,3,3',4,4',5'-HexaCB	**157**	2000	1000
2,3',4,4',5,5'-HexaCB	**167**	2000	1000
3,3',4,4',5,5'-HexaCB	**169**	2000	1000
2,3,3',4,4',5,5'-HeptaCB	**189**	2000	1000

EC-5000	**WHO Coplanar and Mono-Ortho PCBs and 170/180**	1.2 mL in Isooctane

Unlabeled	IUPAC	
3,3',4,4'-TetraCB	**77**	2000
3,4,4',5-TetraCB	**81**	2000
2,3,3',4,4'-PentaCB	**105**	2000
2,3,4,4',5-PentaCB	**114**	2000
2,3',4,4',5-PentaCB	**118**	2000
2',3,4,4',5-PentaCB	**123**	2000
3,3',4,4',5-PentaCB	**126**	2000
2,3,3',4,4',5-HexaCB	**156**	2000
2,3,3',4,4',5'-HexaCB	**157**	2000
2,3',4,4',5,5'-HexaCB	**167**	2000
3,3',4,4',5,5'-HexaCB	**169**	2000
2,2',3,3',4,4',5-HeptaCB	**170**	2000
2,2',3,4,4',5,5'-HeptaCB	**180**	2000
2,3,3',4,4',5,5'-HeptaCB	**189**	2000

Dioxin-Like PCB RH12 Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS0.4	CS1	CS2	CS3	CS4	CS5	CS6
3,4,4′,5-TetraCB	**81**	0.1	0.25	1	5	20	100	500
3,3′,4,4′-TetraCB	**77**	0.1	0.25	1	5	20	100	500
2′,3,4,4′,5-PentaCB	**123**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5-PentaCB	**118**	0.2	0.5	2	10	40	200	1000
2,3,4,4′,5-PentaCB	**114**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′-PentaCB	**105**	0.2	0.5	2	10	40	200	1000
3,3′,4,4′,5-PentaCB	**126**	0.1	0.25	1	5	20	100	500
2,3′,4,4′,5,5′-HexaCB	**167**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5-HexaCB	**156**	0.2	0.5	2	10	40	200	1000
2,3,3′,4,4′,5′-HexaCB	**157**	0.1	0.25	1	5	20	100	500
2,2′,3,4,4′,5,5′-HeptaCB	**180**	0.1	0.25	1	5	20	100	500
3,3′,4,4′,5,5′-HexaCB	**169**	0.1	0.25	1	5	20	100	500
2,2′,3,3′,4,4′,5-HeptaCB	**170**	0.1	0.25	1	5	20	100	500
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.1	0.25	1	5	20	100	500
Labeled								
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	10	10	10	10	10	10	10
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	10	10	10	10	10	10	10
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	10	10	10	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	20	20	20	20	20	20	20
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	10	10	10	10	10	10	10
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	20	20	20	20	20	20	20
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	10	10	10	10	10	10	10
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	10	10	10	10	10	10	10
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	20	20	20	20	20	20	20
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	10	10	10	10	10	10	10
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	10	10	10	10	10	10	10
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	10	10	10	10	10	10	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10	10	10	10
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	10	10	10	10	10	10	10
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	10	10	10	10	10	10	10
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	10	10	10	10	10	10	10
2,3,4,4′-TetraCB ($^{13}C_{12}$,99%)	**60**	10	10	10	10	10	10	10
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	10	10	10	10	10	10	10
2,3,3′,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**159**	10	10	10	10	10	10	10

Dioxin-Like PCB RH12 Standard Mixtures

	Catalog #	Compound	Amount
NEW	EC-5422	**DL-PCB RH12 Extraction Spike**	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	100
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	100
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	100
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	200
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	100
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	200
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	100
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	100
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	200
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	100
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	100
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	100
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	100

	Catalog #	Compound	Amount
NEW	EC-5424	**DL-PCB RH12 Sampling Spike**	1.2 mL in Nonane

Labeled		
2,3,4,4′-TetraCB ($^{13}C_{12}$,99%)	**60**	100
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	100
2,3,3′,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**159**	100

	Catalog #	Compound	Amount
NEW	EC-5423	**DL-PCB RH12 Syringe Spike**	1.2 mL in Nonane

Labeled		
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	100
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	100
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	100
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	100

WHO "Non-Dioxin-Like" Marker PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4058	**PCB Mixture**	3 mL in Nonane

Labeled	IUPAC	(ng/mL)
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	5000
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	5000
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	5000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	5000
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	5000
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	5000
DecaCB ($^{13}C_{12}$,99%)	**209**	5000

EC-5179	**Unlabeled PCB Mixture**	3 mL in Isooctane

Unlabeled		
2,4,4′-TriCB	**28**	5000
2,2′,5,5′-TetraCB	**52**	5000
2,2′,4,5,5′-PentaCB	**101**	5000
2,2′,3,4,4′,5′-HexaCB	**138**	5000
2,2′,4,4′,5,5′-HexaCB	**153**	5000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	5000
DecaCB	**209**	5000

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

Rapid PCB Screening Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4
2,4,4′-TriCB	**28**	1	5	10	50
2,2′,5-TriCB	**18**	1	5	10	50
2,2′,3,5′-TetraCB	**44**	1	5	10	50
2,3′,4′,5-TetraCB	**70**	1	5	10	50
2,2′,5,5′-TetraCB	**52**	1	5	10	50
2,2′,4,5,5′-PentaCB	**101**	1	5	10	50
2,3,3′,4′,6-PentaCB	**110**	1	5	10	50
2,3′,4,4′,5-PentaCB	**118**	1	5	10	50
2,2′,3,4′,5′,6-HexaCB	**149**	1	5	10	50
2,2′,3,4,4′,5′-HexaCB	**138**	1	5	10	50
2,2′,4,4′,5,5′-HexaCB	**153**	1	5	10	50
2,2′,3,4,4′,5,5′-HeptaCB	**180**	1	5	10	50
2,2′,3,4′,5,5′,6-HeptaCB	**187**	1	5	10	50
Labeled					
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	10	10	10	10
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	10	10	10
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	10	10	10	10
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	10	10	10	10
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	10	10	10	10
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	10	10	10	10
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	10	10	10	10
2,2′,3,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**141**	10	10	10	10
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	10	10	10	10

NEW	EC-5450	**Rapid PCB Screening Syringe Spike**	1.2 mL in Nonane

Labeled		(ng/mL)
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	2000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	2000
2,2′,3,4,5,5′-HexaCB ($^{13}C_{12}$,99%)	**141**	2000

NEW	EC-5453	**Rapid PCB Screening Native PAR Solution**	0.5 mL in Nonane

Unlabeled		
2,4,4′-TriCB	**28**	1000
2,2′,5-TriCB	**18**	1000
2,2′,3,5′-TetraCB	**44**	1000
2,3′,4′,5-TetraCB	**70**	1000
2,2′,5,5′-TetraCB	**52**	1000
2,2′,4,5,5′-PentaCB	**101**	1000
2,3,3′,4′,6-PentaCB	**110**	1000
2,3′,4,4′,5-PentaCB	**118**	1000
2,2′,3,4′,5′,6-HexaCB	**149**	1000
2,2′,3,4,4′,5′-HexaCB	**138**	1000
2,2′,4,4′,5,5′-HexaCB	**153**	1000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	1000
2,2′,3,4′,5,5′,6-HeptaCB	**187**	1000

Mono-Deca plus Predominant PCB Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5
4-MonoCB	**3**	4	20	100	500	2000
2,4′-DiCB	**8**	4	20	100	500	2000
2,4,4′-TriCB	**28**	2	10	50	250	1000
2,2′,5,5′-TetraCB	**52**	2	10	50	250	1000
2,2′,4,5,5′-PentaCB	**101**	2	10	50	250	1000
2,3′,4,4′,5-PentaCB	**118**	2	10	50	250	1000
2,3,4,4′,5-PentaCB	**114**	2	10	50	250	1000
2,2′,3,4,4′,5′-HexaCB	**138**	2	10	50	250	1000
2,2′,4,4′,5,5′-HexaCB	**153**	2	10	50	250	1000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	2	10	50	250	1000
2,2′,3,3′,4,4′,5,5′-OctaCB	**194**	4	20	100	500	2000
2,2′,3,3′,4,4′,5,5′,6-NonaCB	**206**	4	20	100	500	2000
DecaCB	**209**	4	20	100	500	2000
Labeled						
4-MonoCB ($^{13}C_{12}$,99%)	**3**	100	100	100	100	100
2,4′-DiCB ($^{13}C_{12}$,99%)	**8**	100	100	100	100	100
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	100	100	100	100	100
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	100	100	100	100	100
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	100	100	100	100	100
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	100	100	100	100	100
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	100	100	100	100	100
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	100	100	100	100	100
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	100	100	100	100	100
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	100	100	100	100	100
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194**	100	100	100	100	100
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206**	100	100	100	100	100
DecaCB ($^{13}C_{12}$,99%)	**209**	100	100	100	100	100
2,4′,6-TriCB ($^{13}C_{12}$,99%)	**32**	100	100	100	100	100
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	100	100	100	100	100
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	100	100	100	100	100
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	100	100	100	100	100
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	100	100	100	100	100

NEW	EC-5411	**Predominant Mono-Deca PCB Spike**	1.2 mL in Nonane

Labeled		(ng/mL)
4-MonoCB ($^{13}C_{12}$,99%)	**3**	2000
2,4′-DiCB ($^{13}C_{12}$,99%)	**8**	2000
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	2000
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	2000
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	2000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	2000
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	2000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	2000
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	2000
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	2000
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194**	2000
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206**	2000
DecaCB ($^{13}C_{12}$,99%)	**209**	2000

Mono-Deca plus Predominant PCB Standard Mixtures

	Catalog #	Compound	Amount
NEW	EC-5415	**Mono-Deca plus Predominant PCB Syringe Spike**	1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
2,4′,6-TriCB ($^{13}C_{12}$,99%)	**32**	2000
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	2000
3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**127**	2000
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	2000
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	2000

NEW	EC-5412	**Native Predominant Mono-Deca PCBs (unlabeled)**	1.2 mL in Isooctane

Unlabeled		
4-MonoCB	**3**	2000
2,4′-DiCB	**8**	2000
2,4,4′-TriCB	**28**	2000
2,2′,5,5′-TetraCB	**52**	2000
2,2′,4,5,5′-PentaCB	**101**	2000
2,3′,4,4′,5-PentaCB	**118**	2000
2,3,4,4′,5-PentaCB	**114**	2000
2,2′,3,4,4′,5′-HexaCB	**138**	2000
2,2′,4,4′,5,5′-HexaCB	**153**	2000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	2000
2,2′,3,3′,4,4′,5,5′-OctaCB	**194**	2000
2,2′,3,3′,4,4′,5,5′,6-NonaCB	**206**	2000
DecaCB	**209**	2000

NEW	EC-4189-A	**Mono-Deca PCB Mixture**	3 mL in Nonane

Labeled		
4-MonoCB ($^{13}C_{12}$,99%)	**3**	1000
4,4′-DiCB ($^{13}C_{12}$,99%)	**15**	1000
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	1000
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	1000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	1000
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	1000
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	1000
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194**	1000
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	1000
DecaCB ($^{13}C_{12}$,99%)	**209**	1000

Toxic and Predominant PCB Standard Mixtures

	Catalog #	Compound	Amount
NEW	EC-5087	**Toxic and Predominant PCB Spiking Standard**	10 mL in Methanol

Labeled	IUPAC	(ng/mL)
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	7.5
2,4′,6-TriCB ($^{13}C_{12}$,99%)	**32**	7.5
2,2,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	7.5
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	7.5
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	7.5
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	7.5
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	7.5
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	7.5
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	7.5
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	7.5
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	7.5
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	7.5
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	7.5
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	7.5
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	7.5
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	7.5
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	7.5
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	7.5
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194**	7.5
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206**	7.5
DecaCB ($^{13}C_{12}$,99%)	**209**	7.5

Toxic and Predominant PCB Standard Mixtures

Catalog #	Compound	Amount
EC-5085	**Toxic and Predominant PCB PAR Solution**	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
NEW EC-5366	**CDC PCB Calibration Solutions [CS1-CS10]** (NOTE: Individual calibration standards are available upon request)	Set of 10 x 0.5 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
2,2′,5-TriCB	**18**	0.2	0.5	1	2.5	10	75	100	500		
2,4,4′-TriCB	**28**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,5′-TetraCB	**44**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,4,5′-TetraCB	**49**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,5,5′-TetraCB	**52**	0.2	0.5	1	2.5	10	75	100	500		
2,3′,4,4′-TetraCB	**66**	0.2	0.5	1	2.5	10	75	100	500		
2,4,4′,5-TetraCB	**74**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,4,5′-PentaCB	**87**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,4,4′,5-PentaCB	**99**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,4,5,5′-PentaCB	**101**	0.2	0.5	1	2.5	10	75	100	500		
2,3,3′,4,4′-PentaCB	**105**	0.2	0.5	1	2.5	10	75	100	500		
2,3,3′,4′,6-PentaCB	**110**	0.2	0.5	1	2.5	10	75	100	500		
2,3,4,4′,5-PentaCB	**114**	0.2	0.5	1	2.5	10	75	100	500		
2,3′,4,4′,5-PentaCB	**118**	0.2	0.5	1	2.5	10	75	100	500	3000	7500
2′,3,4,4′,5-PentaCB	**123**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,4,4′-HexaCB	**128**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,4,4′,5′-HexaCB	**138**	0.1	0.25	0.5	1.25	5	37.5	50	250	1500	3750
2,2′,3,4′,5,5′-HexaCB	**146**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,4′,5′,6-HexaCB	**149**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,5,5′,6-HexaCB	**151**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,4,4′,5,5′-HexaCB	**153**	0.2	0.5	1	2.5	10	75	100	500	3000	7500
2,3,3′,4,4′,5-HexaCB	**156**	0.2	0.5	1	2.5	10	75	100	500		
2,3,3′,4,4′,5′-HexaCB	**157**	0.2	0.5	1	2.5	10	75	100	500		
2,3,3′,4,4′,6-HexaCB	**158**	0.1	0.25	0.5	1.25	5	37.5	50	250	1500	3750
2,3′,4,4′,5,5′-HexaCB	**167**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,4,4′,5-HeptaCB	**170**	0.2	0.5	1	2.5	10	75	100	500	3000	7500
2,2′,3,3′,4,5,5′-HeptaCB	**172**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,4′,5,6-HeptaCB	**177**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,5,5′,6-HeptaCB	**178**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,4,4′,5,5′-HeptaCB	**180**	0.2	0.5	1	2.5	10	75	100	500	3000	7500
2,2′,3,4,4′,5′,6-HeptaCB	**183**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,4′,5,5′,6-HeptaCB	**187**	0.2	0.5	1	2.5	10	75	100	500	3000	7500
2,3,3′,4,4′,5,5′-HeptaCB	**189**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,4,4′,5,5′-OctaCB	**194**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,4,4′,5,6-OctaCB	**195**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,3′,4,4′,5′,6-OctaCB	**196**	0.1	0.25	0.5	1.25	5	37.5	50	250		
2,2′,3,3′,4,5,5′,6′-OctaCB	**201**	0.2	0.5	1	2.5	10	75	100	500		
2,2′,3,4,4′,5,5′,6-OctaCB	**203**	0.1	0.25	0.5	1.25	5	37.5	50	250		
2,2′,3,3′,4,4′,5,5′,6-NonaCB	**206**	0.2	0.5	1	2.5	10	75	100	500		
DecaCB	**209**	0.2	0.5	1	2.5	10	75	100	500		

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CDC PCB Standard Mixtures

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All concentrations are in ng/mL (ppb)

Labeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
1,2,3,4-TCDD ($^{13}C_6$,99%)		25	25	25	25	25	25	25	25	25	25
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	100	100	100	100	100	100	100	100	100	100
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139**	75	75	75	75	75	75	75	75	75	75
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	75	75	75	75	75	75	75	75	75	75
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	75	75	75	75	75	75	75	75	75	75
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	75	75	75	75	75	75	75	75	75	75
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	75	75	75	75	75	75	75	75	75	75
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	75	75	75	75	75	75	75	75	75	75
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	75	75	75	75	75	75	75	75	75	75
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	75	75	75	75	75	75	75	75	75	75
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	75	75	75	75	75	75	75	75	75	75
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	75	75	75	75	75	75	75	75	75	75
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	75	75	75	75	75	75	75	75	75	75
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	75	75	75	75	75	75	75	75	75	75
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206**	75	75	75	75	75	75	75	75	75	75
DecaCB ($^{13}C_{12}$,99%)	**209**	75	75	75	75	75	75	75	75	75	75

Catalog #	Compound	Amount
NEW EC-5367	**CDC PCB Spiking Standard**	10 mL in Methanol

Labeled	IUPAC	(ng/mL)
2,4,4′-TriCB ($^{13}C_{12}$,99%)	**28**	7.5
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**52**	7.5
2,2′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)	**101**	7.5
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	7.5
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	7.5
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	7.5
2,2′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**153**	7.5
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	7.5
2,2′,3,3′,5,5′,6-HeptaCB ($^{13}C_{12}$,99%)	**178**	7.5
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	7.5
2,2′,3,3′,4,4′-HexaCB ($^{13}C_{12}$,99%)	**128**	7.5
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	7.5
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	7.5
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	7.5
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	7.5
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	7.5
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	7.5
2,2′,3,3′,4,4′,5,5′-OctaCB ($^{13}C_{12}$,99%)	**194**	7.5
2,2′,3,3′,4,4′,5,5′,6-NonaCB ($^{13}C_{12}$,99%)	**206**	7.5
DecaCB ($^{13}C_{12}$,99%)	**209**	7.5

Isotope Labeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4937	**WHO Coplanar and Mono-Ortho PCBs**	3 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	1000
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	1000
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	1000
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	1000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	1000
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	1000
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	1000
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	1000
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	1000
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	1000
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	1000
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	1000

EC-4995	**WHO Coplanar and Mono-Ortho PCBs with PCB 170/180**	1.2 mL in Nonane

Labeled		
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	1000
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	1000
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	1000
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	1000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	1000
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	1000
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	1000
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	1000
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	1000
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	1000
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	1000
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	1000
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	1000
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	1000

EC-5045	**WHO PCB + PCB-170 + PCB-180 Cleanup Standard**	1.2 mL in Nonane

Labeled		
3,3′,4,4′-TetraCB ($^{13}C_{12}$,99%)	**77**	2000
3,4,4′,5-TetraCB ($^{13}C_{12}$,99%)	**81**	2000
2,3,3′,4,4′-PentaCB ($^{13}C_{12}$,99%)	**105**	2000
2,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**114**	2000
2,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**118**	2000
2′,3,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**123**	2000
3,3′,4,4′,5-PentaCB ($^{13}C_{12}$,99%)	**126**	2000
2,3,3′,4,4′,5-HexaCB ($^{13}C_{12}$,99%)	**156**	2000
2,3,3′,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**157**	2000
2,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**167**	2000
3,3′,4,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)	**169**	2000
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	2000
2,2′,3,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**180**	2000
2,3,3′,4,4′,5,5′-HeptaCB ($^{13}C_{12}$,99%)	**189**	2000

Isotope Labeled PCB Standard Mixtures

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

Isotope Labeled PCB Standard Mixtures

	Catalog #	Compound		Amount
NEW	EC-5047	**WHO PCB and PCB-170/180 Sampling Standard**		1.2 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	2000

	Catalog #	Compound		Amount
NEW	EC-5180	**PCB Sampling Spike**		1.2 mL in Nonane

Labeled		
3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)	**79**	100

	Catalog #	Compound		Amount
NEW	EC-5157-5	**^{13}C-Labeled PCB Standard (PCB-70 and PCB-170)**		5 mL in Nonane

Labeled		
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	2
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	2

	Catalog #	Compound		Amount
NEW	EC-5181	**PCB Syringe Spike**		1.2 mL in Nonane
NEW	EC-5181-10X-1.2	**PCB Syringe Spike**		1.2 mL in Nonane

Labeled		EC-5181	EC-5181-10X-1.2
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	100	1000
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	100	1000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	100	1000

	Catalog #	Compound		Amount
NEW	EC-5163	**PCB Mixture (PCB-70/111/138/170)**		1.2 mL in Nonane

Labeled		
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	1000
2,3,3′,5,5′-PentaCB ($^{13}C_{12}$,99%)	**111**	1000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**138**	1000
2,2′,3,3′,4,4′,5-HeptaCB ($^{13}C_{12}$,99%)	**170**	1000

	Catalog #	Compound		Amount
NEW	EC-5350	**POPs Pesticides HRMs (PCB) Syringe Spike**		1.2 mL in Nonane
NEW	EC-5350-L	**POPs Pesticides HRMs (PCB) Syringe Spike**		0.5 mL in Nonane

Labeled		EC-5350	EC-5350-L
4,4′-DiCB ($^{13}C_{12}$,99%)	**15**	10	1000
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	10	1000

Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4133	**DSJ PCB Mixture**	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
NEW	EC-5433	**Comprehensive Native PCB Mixture**	1.2 mL in Isooctane

Unlabeled	IUPAC	(ng/mL)
2-MonoCB	**1**	2000
4-MonoCB	**3**	2000
2,2′-DiCB	**4**	2000
2,4′-DiCB	**8**	2000
2,5-DiCB	**9**	2000
2,6-DiCB	**10**	2000
3,3′-DiCB	**11**	2000
3,4-DiCB	**12**	2000
4,4′-DiCB	**15**	2000
2,2′,5-TriCB	**18**	1000
2,2′,6-TriCB	**19**	1000
2,4,4′-TriCB	**28**	1000
2,4′,5-TriCB	**31**	1000
2′,3,4-TriCB	**33**	1000
3,3′,4-TriCB	**35**	1000
3,4,4′-TriCB	**37**	1000
3,4,5-TriCB	**38**	1000
2,2′,3,5′-TetraCB	**44**	1000
2,2′,4,5′-TetraCB	**49**	1000
2,2′,5,5′-TetraCB	**52**	1000
2,2′,6,6′-TetraCB	**54**	1000
2,3,3′,5-TetraCB	**57**	1000
2,3′,4,4′-TetraCB	**66**	1000
2,3′,4′,5-TetraCB	**70**	1000
2,4,4′,5-TetraCB	**74**	1000
3,3′,4,4′-TetraCB	**77**	1000
3,3′,4,5-TetraCB	**78**	1000
3,3′,4,5′-TetraCB	**79**	1000
3,4,4′,5-TetraCB	**81**	1000
2,2′,3,4,5′-PentaCB	**87**	1000
2,2′,3,5′,6-PentaCB	**95**	1000
2,2′,4,4′,5-PentaCB	**99**	1000
2,2′,4,5,5′-PentaCB	**101**	1000

Unlabeled	IUPAC	(ng/mL)
2,2′,4,6,6′-PentaCB	**104**	1000
2,3,3′,4,4′-PentaCB	**105**	1000
2,3,3′,4′,6-PentaCB	**110**	1000
2,3,3′,5,5′-PentaCB	**111**	1000
2,3,4,4′,5-PentaCB	**114**	1000
2,3′,4,4′,5-PentaCB	**118**	1000
2′,3,4,4′,5-PentaCB	**123**	1000
3,3′,4,4′,5-PentaCB	**126**	1000
2,2′,3,4,4′,5′-HexaCB	**138**	1000
2,2′,3,4′,5′,6-HexaCB	**149**	1000
2,2′,4,4′,5,5′-HexaCB	**153**	1000
2,2′,4,4′,6,6′-HexaCB	**155**	1000
2,3,3′,4,4′,5-HexaCB	**156**	1000
2,3,3′,4,4′,5′-HexaCB	**157**	1000
2,3,3′,4′,5,5′-HexaCB	**162**	1000
2,3′,4,4′,5,5′-HexaCB	**167**	1000
3,3′,4,4′,5,5′-HexaCB	**169**	1000
2,2′,3,3′,4,4′,5-HeptaCB	**170**	1000
2,2′,3,3′,4,5,6′-HeptaCB	**174**	1000
2,2′,3,3′,5,5′,6-HeptaCB	**178**	1000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	1000
2,2′,3,4′,5,5′,6-HeptaCB	**187**	1000
2,2′,3,4′,5,6,6′-HeptaCB	**188**	1000
2,3,3′,4,4′,5,5′-HeptaCB	**189**	1000
2,2′,3,3′,4,4′,5,5′-OctaCB	**194**	1000
2,2′,3,3′,4,4′,5,6-OctaCB	**195**	1000
2,2′,3,3′,4,5,6,6′-OctaCB	**199**	1000
2,2′,3,3′,5,5′,6,6′-OctaCB	**202**	1000
2,2′,3,4,4′,5,5′,6-OctaCB	**203**	1000
2,3,3′,4,4′,5,5′,6-OctaCB	**205**	1000
2,2′,3,3′,4,4′,5,5′,6-NonaCB	**206**	1000
2,2′,3,3′,4,5,5′,6,6′-NonaCB	**208**	1000
DecaCB	**209**	1000

Unlabeled PCB Standard Mixtures

	Catalog #	Compound	Amount
NEW	EC-5434	**Fully Resolved Native Mono-Deca PCB Mixture**	1.2 mL in Isooctane

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

Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-5085	**Toxic and Predominant PCB PAR Solution**	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

Unlabeled PCB Standard Mixtures

Catalog #	Compound	Amount
EC-4935	**WHO Coplanar and Mono-Ortho PCBs**	1.2 mL in Isooctane
EC-4935-A	**WHO Coplanar and Mono-Ortho PCBs**	3 mL in Isooctane

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

EC-5000	**WHO Coplanar and Mono-Ortho PCBs and 170/180**	1.2 mL in Isooctane

Unlabeled		EC-5000
3,3′,4,4′-TetraCB	**77**	2000
3,4,4′,5-TetraCB	**81**	2000
2,3,3′,4,4′-PentaCB	**105**	2000
2,3,4,4′,5-PentaCB	**114**	2000
2,3′,4,4′,5-PentaCB	**118**	2000
2′,3,4,4′,5-PentaCB	**123**	2000
3,3′,4,4′,5-PentaCB	**126**	2000
2,3,3′,4,4′,5-HexaCB	**156**	2000
2,3,3′,4,4′,5′-HexaCB	**157**	2000
2,3′,4,4′,5,5′-HexaCB	**167**	2000
3,3′,4,4′,5,5′-HexaCB	**169**	2000
2,2′,3,3′,4,4′,5-HeptaCB	**170**	2000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	2000
2,3,3′,4,4′,5,5′-HeptaCB	**189**	2000

EC-4986	**Non-Ortho Native PCB Solution**	1.2 mL in Isooctane

Unlabeled		
3,3′,4,4′-TetraCB	**77**	10,000
3,4,4′,5-TetraCB	**81**	10,000
3,3′,4,4′,5-PentaCB	**126**	10,000
3,3′,4,4′,5,5′-HexaCB	**169**	10,000

Unlabeled PCB Standard Mixtures

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

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

NEW EC-5179 **Unlabeled PCB Mixture** — 3 mL in Isooctane

Unlabeled		
2,4,4′-TriCB	**28**	5000
2,2′,5,5′-TetraCB	**52**	5000
2,2′,4,5,5′-PentaCB	**101**	5000
2,2′,3,4,4′,5′-HexaCB	**138**	5000
2,2′,4,4′,5,5′-HexaCB	**153**	5000
2,2′,3,4,4′,5,5′-HeptaCB	**180**	5000
DecaCB	**209**	5000

EC-7438 **Unlabeled PCB Mixture** — 1.2 mL in Isooctane

Unlabeled		
3,3′,4,4′-TetraCB	**77**	10,000
2,2′,4,5,5′-PentaCB	**101**	10,000
2,2′,3,4,5,5′-HexaCB	**141**	10,000
2,2′,3,3′,5,5′,6-HeptaCB	**178**	10,000

PCB Window Defining Mixture

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

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

Isotope Labeled Mixed Bromo/Chloro Biphenyl Standards

	Catalog #	Compound	Concentration	Amount
NEW	ECB-5269	**3,4-Dichloro-3′,4′,5′-TriBB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5270	**3,4-Dibromo-3′,4′-DiCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5271	**3,4-Dibromo-3′,4′,5′-TriCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5291	**4′-Bromo-3,3′,4,5-TetraCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5292	**4′-Bromo-2,3′,4,5-TetraCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5293	**4′-Bromo-2,3,3′,4-TetraCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5294	**4′-Bromo-2,3,3′,4,5-PentaCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL
NEW	ECB-5339	**4′-Bromo-3,3′,4,5,5′-PentaCB ($^{13}C_{12}$,99%)**	40 µg/mL in Nonane	3 mL

Unlabeled Mixed Bromo/Chloro Biphenyl Standards

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

Mixed Bromo/Chloro Biphenyl Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
4'-Bromo-3,3',4,5-TetraCB	2	10	50	200	200
4'-Bromo-2,3',4,5-TetraCB	2	10	50	200	200
4'-Bromo-2,3,3',4-TetraCB	2	10	50	200	200
4'-Bromo-2,3,3',4,5-PentaCB	2	10	50	200	200
4'-Bromo-3,3',4,5,5'-PentaCB	2	10	50	200	1000
3,4-Dichloro-3',4',5'-TriBB	4	20	100	400	2000
Labeled					
4'-Bromo-3,3',4,5-TetraCB ($^{13}C_{12}$,99%)	100	100	100	100	100
4'-Bromo-2,3',4,5-TetraCB ($^{13}C_{12}$,99%)	100	100	100	100	100
4'-Bromo-2,3,3',4-TetraCB ($^{13}C_{12}$,99%)	100	100	100	100	100
4'-Bromo-2,3,3',4,5-PentaCB ($^{13}C_{12}$,99%)	100	100	100	100	100
4'-Bromo-3,3',4,5,5'-PentaCB ($^{13}C_{12}$,99%)	100	100	100	100	100
3,4-Dichloro-3',4',5'-TriBB ($^{13}C_{12}$,99%)	200	200	200	200	200
2,2',3,4,5,5'-HexaCDE ($^{13}C_{12}$,99%)	100	100	100	100	100

NEW	ECB-5389	**PXB Cleanup Spike**	1.2 mL in Nonane

Labeled	(ng/mL)
4'-Bromo-3,3',4,5-TetraCB ($^{13}C_{12}$,99%)	1000
4'-Bromo-2,3',4,5-TetraCB ($^{13}C_{12}$,99%)	1000
4'-Bromo-2,3,3',4-TetraCB ($^{13}C_{12}$,99%)	1000
4'-Bromo-2,3,3',4,5-PentaCB ($^{13}C_{12}$,99%)	1000
4'-Bromo-3,3',4,5,5'-PentaCB ($^{13}C_{12}$,99%)	1000
3,4-Dichloro-3',4',5'-TriBB ($^{13}C_{12}$,99%)	2000

NEW	EO-5388	**PXB Syringe Standard**	1.2 mL in Nonane

Labeled	
2,2',3,4,5,5'-HexaCDE ($^{13}C_{12}$,99%)	1000

NEW	ECB-5387	**PXB Native PAR Solution**	0.5 mL in Nonane

Unlabeled	
4'-Bromo-3,3',4,5-TetraCB	1000
4'-Bromo-2,3',4,5-TetraCB	1000
4'-Bromo-2,3,3',4-TetraCB	1000
4'-Bromo-2,3,3',4,5-PentaCB	1000
4'-Bromo-3,3',4,5,5'-PentaCB	1000
3,4-Dichloro-3',4',5'-TriBB	2000

PCB Metabolite Standards

OH-PCB

	Catalog #	Compound	Concentration	Amount
NEW	OHCB-5114-1.2	**4′-OH-3,3′,4,5′-TetraCB ($^{13}C_{12}$,99%)**	50 µg/mL in Nonane	1.2 mL
NEW	OHCB-5115-1.2	**4-OH-2,3,3′,4′,5-PentaCB ($^{13}C_{12}$,99%)**	50 µg/mL in Nonane	1.2 mL
NEW	OHCB-5117-1.2	**4-OH-2,2′,3,4′,5,5′-HexaCB ($^{13}C_{12}$,99%)**	50 µg/mL in Nonane	1.2 mL
NEW	OHCB-5118-1.2	**3′-OH-2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)**	50 µg/mL in Nonane	1.2 mL
NEW	OHCB-5124-1.2	**4′-OH-2,2′,3,3′,4,5,5′-HeptaCB ($^{13}C_{12}$,99%)**	50 µg/mL in Nonane	1.2 mL

MEO-PCB

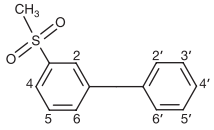
NEW	MEOCB-5109-1.2	**4-Methoxy-2,3,3′,4′,5-PentaCB (unlabeled)**	50 µg/mL in Nonane	1.2 mL
NEW	MEOCB-5111-1.2	**4-Methoxy-2,2′,3,4′,5,5′-HexaCB (unlabeled)**	50 µg/mL in Nonane	1.2 mL
NEW	MEOCB-5135-1.2	**4-Methoxy-2,2′,3,4′,5,5′,6-HeptaCB (unlabeled)**	50 µg/mL in Nonane	1.2 mL

Unlabeled Methyl Sulfone PCB Standards

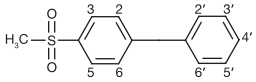
Methyl Sulfone derivatives of polychlorinated biphenyls ($MeSO_2$-PCBs) are known to be primary metabolic products of PCBs. These are persistent, lipophilic compounds which accumulate in the lung, liver and kidney tissues of mammals exposed to PCBs.

MSCB-4027	**3-$MeSO_2$-4-Me-2′,3′,4′,5,5′-Penta-CB (Internal Standard)**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4007	**3-$MeSO_2$-2,2′,4′,5-TetraCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4008	**4-$MeSO_2$-2,2′,4′,5-TetraCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4043	**4-$MeSO_2$-2,2′,4′,5,6-PentaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4009	**3-$MeSO_2$-2,2′,4′,5,5′-PentaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4010	**4-$MeSO_2$-2,2′,4′,5,5′-PentaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4012	**4-$MeSO_2$-2,3,3′,4′,6-PentaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4044	**3-$MeSO_2$-2,2′,3′,4′,5,6-HexaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4045	**4-$MeSO_2$-2,2′,3,3′,4′,6-HexaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4013	**3-$MeSO_2$-2,2′,4′,5,5′,6-HexaCB**	40 ± 4 µg/mL in Nonane	1.2 mL
MSCB-4015	**3-$MeSO_2$-DDE**	40 ± 4 µg/mL in Nonane	1.2 mL

3-$MeSO_2$-PCB



4-$MeSO_2$-PCB



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}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.

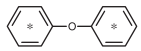
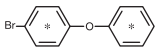
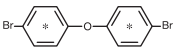
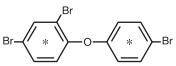
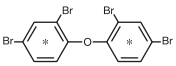
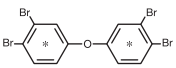
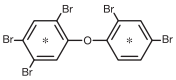
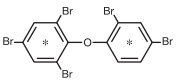
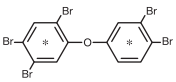
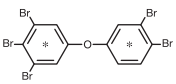
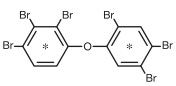
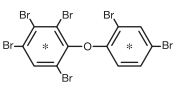
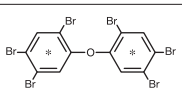
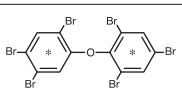
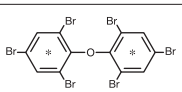
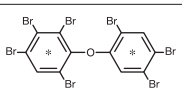
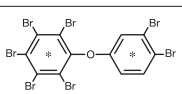
Brominated Flame Retardant Standards and Standard Mixtures

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.

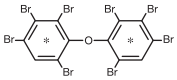
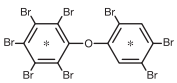
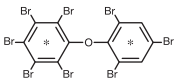
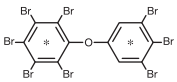
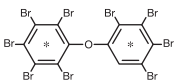
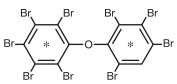
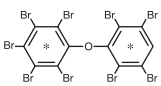
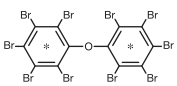
Isotope Labeled and Unlabeled BDE Metabolites

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 $^{13}C_{12}$ 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	**Diphenyl ether ($^{13}C_{12}$,99%)**	**0**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4999	**4-Monobromodiphenyl ether ($^{13}C_{12}$,99%)**	**3**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5001	**4,4′-Dibromodiphenyl ether ($^{13}C_{12}$,99%)**	**15**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5002	**2,4,4′-Tribromodiphenyl ether ($^{13}C_{12}$,99%)**	**28**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4982	**2,2′,4,4′-Tetrabromodiphenyl ether ($^{13}C_{12}$,99%)**	**47**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-1439	**3,3′,4,4′-Tetrabromodiphenyl ether ($^{13}C_{12}$,99%)**	**77**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4983	**2,2′,4,4′,5-Pentabromodiphenyl ether ($^{13}C_{12}$,99%)**	**99**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4993	**2,2′,4,4′,6-Pentabromodiphenyl ether ($^{13}C_{12}$,99%)**	**100**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5034	**2,3′,4,4′,5-Pentabromodiphenyl ether ($^{13}C_{12}$,99%)**	**118**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4930	**3,3′,4,4′,5-Pentabromodiphenyl ether ($^{13}C_{12}$,99%)**	**126**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5035	**2,2′,3,4,4′,5′-Hexabromodiphenyl ether ($^{13}C_{12}$,99%)**	**138**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5165	**2,2′,3,4,4′,6-Hexabromodiphenyl ether ($^{13}C_{12}$,99%)**	**139**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4984	**2,2′,4,4′,5,5′-Hexabromodiphenyl ether ($^{13}C_{12}$,99%)**	**153**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-5161	**2,2′,4,4′,5,6′-Hexabromodiphenyl ether ($^{13}C_{12}$,99%)**	**154**		50 ± 5 µg/mL in Nonane	1.2 mL
NEW EO-5413	**2,2′,4,4′,6,6′-Hexabromodiphenyl ether ($^{13}C_{12}$,99%)**	**155**		50 ± 5 µg/mL in Nonane	1.2 mL
EO-4985	**2,2′,3,4,4′,5′,6-Heptabromodiphenyl ether ($^{13}C_{12}$,99%)**	**183**		50 ± 5 µg/mL in Nonane	1.2 mL
NEW EO-5376	**2,3,3′,4,4′,5,6-Heptabromodiphenyl ether ($^{13}C_{12}$,99%)**	**190**		50 ± 5 µg/mL in Nonane	1.2 mL

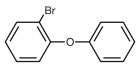
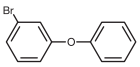
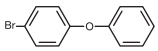
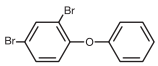
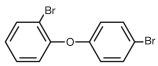
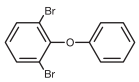
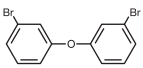
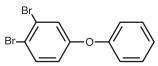
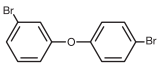
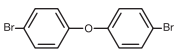
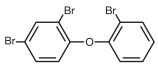
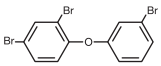
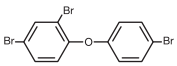
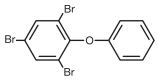
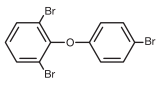
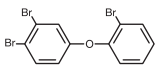
Isotope Labeled Individual Brominated Diphenyl Ether (BDE) Standards

	Catalog #	Compound	BDE		Concentration	Amount
NEW	EO-5337	**2,2′,3,3′,4,4′,6,6′-Octabromodiphenyl ether ($^{13}C_{12}$,99%)**	**197**		50 ± 5 µg/mL in Nonane	1.2 mL
NEW	EO-5377	**2,2′,3,4,4′,5,5′,6-Octabromodiphenyl ether ($^{13}C_{12}$,99%)**	**203**		50 ± 5 µg/mL in Nonane	1.2 mL
NEW	EO-5355	**2,2′,3,4,4′,5,6,6′-Octabromodiphenyl ether ($^{13}C_{12}$,99%)**	**204**		50 ± 5 µg/mL in Nonane	1.2 mL
NEW	EO-5362	**2,3,3′,4,4′,5,5′,6-Octabromodiphenyl ether ($^{13}C_{12}$,99%)**	**205**		50 ± 5 µg/mL in Nonane	1.2 mL
	EO-5240	**2,2′,3,3′,4,4′,5,5′,6-Nonabromodiphenyl ether ($^{13}C_{12}$,99%)**	**206**		50 ± 5 µg/mL in Nonane	1.2 mL
	EO-5241	**2,2′,3,3′,4,4′,5,6,6′-Nonabromodiphenyl ether ($^{13}C_{12}$,99%)**	**207**		50 ± 5 µg/mL in Nonane	1.2 mL
	EO-5242	**2,2′,3,3′,4,5,5′,6,6′-Nonabromodiphenyl ether ($^{13}C_{12}$,99%)**	**208**		50 ± 5 µg/mL in Nonane	1.2 mL
	EO-5003	**Decabromodiphenyl ether ($^{13}C_{12}$,99%)**	**209**		50 ± 5 µg/mL in Nonane	1.2 mL

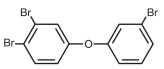
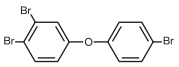
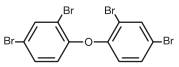
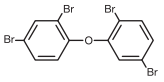
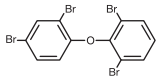
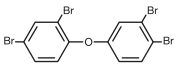
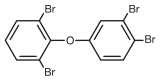
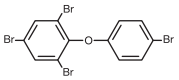
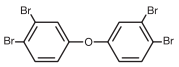
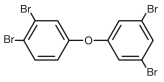
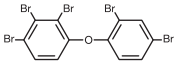
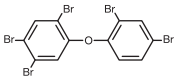
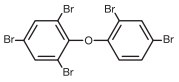
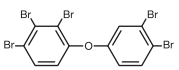
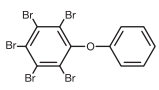
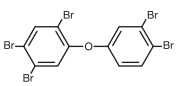
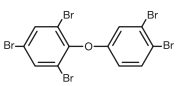
Multiple-unit pricing is available for individual ^{13}C-BDE standards as follows:

2-3 units = 20% discount
4 or more units = 33% discount

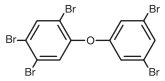
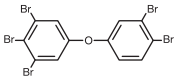
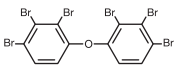
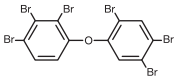
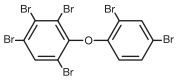
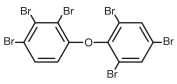
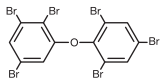
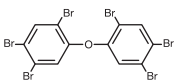
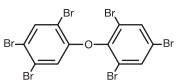
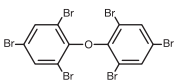
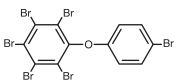
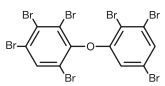
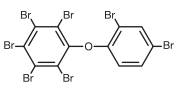
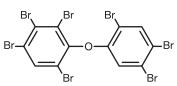
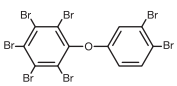
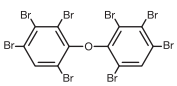
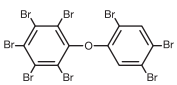
Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

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

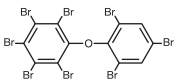
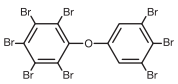
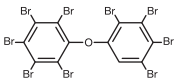
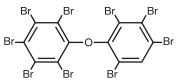
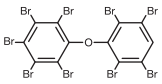
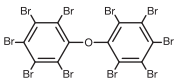
Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

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

Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

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

Unlabeled Individual Brominated Diphenyl Ether (BDE) Standards

	Catalog #	Compound	BDE		Concentration	Amount
NEW	BDE-204-CS	**2,2′,3,4,4′,5,6,6′-Octabromodiphenyl ether**	**204**		50 ± 5 µg/mL in Nonane	1.2 mL
	BDE-205-CS	**2,3,3′,4,4′,5,5′,6-Octabromodiphenyl ether**	**205**		50 ± 5 µg/mL in Nonane	1.2 mL
	BDE-206-CS	**2,2′,3,3′,4,4′,5,5′,6-Nonabromodiphenyl ether**	**206**		50 ± 5 µg/mL in Nonane	1.2 mL
	BDE-207-CS	**2,2′,3,3′,4,4′,5,6,6′-Nonabromodiphenyl ether**	**207**		50 ± 5 µg/mL in Nonane	1.2 mL
	BDE-208-CS	**2,2′,3,3′,4,5,5′,6,6′-Nonabromodiphenyl ether**	**208**		50 ± 5 µg/mL in Nonane	1.2 mL
	BDE-209-CS	**Decabromodiphenyl ether**	**209**		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	**3,3′,4,4′-TetraBB ($^{13}C_{12}$,99%) (PBB-77)**	40 ± 2 µg/mL in Nonane	3 mL
	EB-5056	**3,3′,4,4′,5-PentaBB ($^{13}C_{12}$,99%) (PBB-126)**	40 ± 2 µg/mL in Nonane	3 mL
NEW	EB-5162	**2,2′,4,4′,5,5′-HexaBB ($^{13}C_{12}$,99%) (PBB-153)**	40 ± 2 µg/mL in Nonane	3 mL
	EB-5106	**2,3,3′,4,4′,5′-HexaBB ($^{13}C_{12}$,99%) (PBB-157)**	40 ± 2 µg/mL in Nonane	3 mL
NEW	EB-5439	**DecaBB ($^{13}C_{12}$,99%) (PBB-209)**	40 ± 2 µg/mL in Nonane	3 mL

Unlabeled Individual Polybrominated Biphenyl (PBB) Standards

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

BDE Technical Mixtures

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

Tetrabromobisphenol A (TBBPA) and Hexabromocyclododecane (HBCD) Standards

	CLM-4694-1.2	**Tetrabromobisphenol A (TBBPA) (ring-$^{13}C_{12}$,99%)**	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8734-1.2	**Tetrabromobisphenol A (TBBPA) (unlabeled)**	50 µg/mL in Methanol	1.2 mL
	ULM-6236-1.2	**Dimethyl Tetrabromobisphenol A (unlabeled)**	50 µg/mL in Nonane	1.2 mL
	CLM-7102-1.2	**Hexabromocyclododecane (HBCD) ($^{13}C_{12}$,99%)** (Unequal mixture of α, β, and γ isomers)	50 µg/mL in Toluene	1.2 mL
NEW	CLM-7922-0.5	**α-Hexabromocyclododecane (HBCD) ($^{13}C_{12}$,99%)**	50 µg/mL in Toluene	0.5 mL
	ULM-4834-1.2	**α-Hexabromocyclododecane (HBCD) (unlabeled)**	50 µg/mL in Toluene	1.2 mL
NEW	CLM-7923-1.2	**β-Hexabromocyclododecane (HBCD) ($^{13}C_{12}$,99%)**	50 µg/mL in Toluene	1.2 mL
	ULM-4835-1.2	**β-Hexabromocyclododecane (HBCD) (unlabeled)**	50 µg/mL in Toluene	1.2 mL
NEW	CLM-7924-1.2	**γ-Hexabromocyclododecane (HBCD) ($^{13}C_{12}$,99%)**	50 µg/mL in Toluene	1.2 mL
	ULM-4836-1.2	**γ-Hexabromocyclododecane (HBCD) (unlabeled)**	50 µg/mL in Toluene	1.2 mL

Other Flame-Retardant Standards

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

BDE Metabolite Standards

OH-BDE

NEW	OHBDE-5190-1.2	**6-Hydroxy-2,2′,4,4′-TetraBDE (ring-$^{13}C_{12}$,99%)** (CP: 92%)	50 µg/mL in Toluene	1.2 mL
NEW	OHBDE-5206-1.2	**6-Hydroxy-2,2′,4,4′-TetraBDE (unlabeled)**	50 µg/mL in Nonane	1.2 mL
NEW	OHBDE-5191-1.2	**2-Hydroxy-2′,4,4′,5′,6-PentaBDE (ring-$^{13}C_{12}$,99%)** (CP: 94%)	50 µg/mL in Toluene	1.2 mL
NEW	OHBDE-5212-1.2	**4′-Hydroxy-2,2′,4,5′-TetraBDE (unlabeled)**	50 µg/mL in Nonane	1.2 mL
NEW	OHBDE-5214-1.2	**6′-Hydroxy-2,2′,4,5′-TetraBDE (unlabeled)**	50 µg/mL in Nonane	1.2 mL
NEW	OHBDE-5228-1.2	**6-Hydroxy-2,2′,4,4′,5-PentaBDE (unlabeled)**	50 µg/mL in Nonane	1.2 mL

MEO-BDE

NEW	MEOBDE-5153-1.2	**2′-Methoxy-2,3′,4,5′-TetraBDE (unlabeled)**	50 µg/mL in Nonane	1.2 mL
NEW	MEOBDE-5205-1.2	**6-Methoxy-2,2′,4,4′-TetraBDE (unlabeled)**	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	**EPA Method 1614 Calibration Solutions [CS1-CS5]**	Set of 5 x 0.2 mL in Nonane
EO-5279-CS1	**EPA Method 1614 Calibration Solution [CS1]**	0.2 mL in Nonane
EO-5279-CS2	**EPA Method 1614 Calibration Solution [CS2]**	0.2 mL in Nonane
EO-5279-CS3	**EPA Method 1614 Calibration Solution [CS3]**	0.2 mL in Nonane
EO-5279-CS4	**EPA Method 1614 Calibration Solution [CS4]**	0.2 mL in Nonane
EO-5279-CS5	**EPA Method 1614 Calibration Solution [CS5]**	0.2 mL in Nonane

All concentrations are in ng/mL (ppb)

Unlabeled	Congener	CS1	CS2	CS3	CS4	CS5
2,4,4′-TriBDE	**28**	1	5	50	500	2500
2,2′,4,4′-TetraBDE	**47**	1	5	50	500	2500
2,2′,4,4′,5-PentaBDE	**99**	1	5	50	500	2500
2,2′,4,4′,6-PentaBDE	**100**	1	5	50	500	2500
2,2′,4,4′,5,5′-HexaBDE	**153**	1	5	50	500	2500
2,2′,4,4′,5,6′-HexaBDE	**154**	1	5	50	500	2500
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	1	5	50	500	2500
DecaBDE	**209**	10	50	500	5000	25,000
Labeled						
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28L**	100	100	100	100	100
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47L**	100	100	100	100	100
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99L**	100	100	100	100	100
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100L**	100	100	100	100	100
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153L**	100	100	100	100	100
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154L**	100	100	100	100	100
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183L**	100	100	100	100	100
DecaBDE ($^{13}C_{12}$,99%)	**209L**	1000	1000	1000	1000	1000
Labeled Cleanup						
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139L**	100	100	100	100	100
Labeled Injection Internal						
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**PCB-52L**	100	100	100	100	100
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**PCB-138L**	100	100	100	100	100

U.S. EPA Method 1614 Standard Mixtures

Catalog #	Compound	Amount
EO-5277	**EPA Method 1614 Labeled Surrogate Stock Solution**	1.2 mL in Nonane

Labeled	Congener	(ng/mL)
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28L**	1000
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47L**	1000
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99L**	1000
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100L**	1000
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153L**	1000
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154L**	1000
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183L**	1000
DecaBDE ($^{13}C_{12}$,99%)	**209L**	10,000

EO-5276	**EPA Method 1614 Labeled Cleanup Stock Solution**	1.2 mL in Nonane

Labeled		
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139L**	1000

EO-5275	**EPA Method 1614 Labeled Injection Internal Stock Solution**	1.2 mL in Nonane

Labeled		
2,2′,5,5′-TetraCB ($^{13}C_{12}$,99%)	**PCB-52L**	5000
2,2′,3,4,4′,5′-HexaCB ($^{13}C_{12}$,99%)	**PCB-138L**	5000

EO-5278	**EPA Method 1614 Native PAR Stock Solution**	1.2 mL in Nonane

Unlabeled		
2,4,4′-TriBDE	**28**	1000
2,2′,4,4′-TetraBDE	**47**	1000
2,2′,4,4′,5-PentaBDE	**99**	1000
2,2′,4,4′,6-PentaBDE	**100**	1000
2,2′,4,4′,5,5′-HexaBDE	**153**	1000
2,2′,4,4′,5,6′-HexaBDE	**154**	1000
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	1000
DecaBDE	**209**	10,000

RoHS BDE Standard Mixtures

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

All concentrations are in ng/mL (ppb)

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

RoHS BDE Standard Mixtures

	Catalog #	Compound	Amount
NEW	EO-5403	**RoHS PBDE Cleanup Spike**	1.2 mL in Nonane

Labeled	BDE	(ng/mL)
4-MonoBDE ($^{13}C_{12}$,99%)	**3**	100
4,4′-DiBDE ($^{13}C_{12}$,99%)	**15**	100
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	100
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	100
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	100
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	200
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154**	200
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	200
2,2′,3,4,4′,5,6,6′-OctaBDE ($^{13}C_{12}$,99%)	**204**	200
2,2′,3,3′,4,4′,5,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**207**	500
DecaBDE ($^{13}C_{12}$,99%)	**209**	500

	Catalog #	Compound	Amount
NEW	EO-5404	**RoHS PBDE Syringe Spike**	1.2 mL in Nonane

Labeled		
2,2′,3,4,4′,5′-HexaBDE ($^{13}C_{12}$,99%)	**138**	200

	Catalog #	Compound	Amount
NEW	EO-5405	**RoHS PBDE Native PAR Spike**	1.2 mL in Nonane

Unlabeled		
4-MonoBDE	**3**	1000
2,4-DiBDE	**7**	1000
4,4′-DiBDE	**15**	1000
2,2′,4-TriBDE	**17**	1000
2,4,4′-TriBDE	**28**	1000
2,2′,4,4′-TetraBDE	**47**	1000
2,2′,4,5′-TetraBDE	**49**	1000
2,3′,4,4′-TetraBDE	**66**	1000
2,3′,4′,6-TetraBDE	**71**	1000
3,3′,4,4′-TetraBDE	**77**	1000
2,2′,3,4,4′-PentaBDE	**85**	1000
2,2′,4,4′,5-PentaBDE	**99**	1000
2,2′,4,4′,6-PentaBDE	**100**	1000
2,3′,4,4′,6-PentaBDE	**119**	1000
3,3′,4,4′,5-PentaBDE	**126**	1000
2,2′,3,4,4′,5′-HexaBDE	**138**	2000
2,2′,4,4′,5,5′-HexaBDE	**153**	2000
2,2′,4,4′,5,6′-HexaBDE	**154**	2000
2,2′,4,4′,6,6′-HexaBDE	**155**	2000
2,3,4,4′,5,6-HexaBDE	**166**	2000
2,2′,3,4,4′,5,6-HeptaBDE	**181**	2000
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	2000
2,3,3′,4,4′,5,6-HeptaBDE	**190**	2000
2,2′,3,4,4′,5,5′,6-OctaBDE	**203**	2000
2,3,3′,4,4′,5,5′,6-OctaBDE	**205**	2000
2,2′,3,3′,4,4′,5,5′,6-NonaBDE	**206**	5000
2,2′,3,3′,4,4′,5,6,6′-NonaBDE	**207**	5000
DecaBDE	**209**	5000

RoHS BDE Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	BDE	CS1	CS2	CS3
4,4′-DiBDE	**15**	20	100	1000
2,4,4′-TriBDE	**28**	20	100	1000
2,2′,4,4′-TetraBDE	**47**	20	100	1000
2,2′,4,4′,5-PentaBDE	**99**	20	100	1000
2,2′,4,4′,5,5′-HexaBDE	**153**	20	100	1000
2,2′,4,4′,5,6′-HexaBDE	**154**	20	100	1000
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	20	100	1000
2,2′,3,3′,4,4′,6,6′-OctaBDE	**197**	50	250	2500
2,2′,3,3′,4,4′,5,5′,6-NonaBDE	**206**	100	500	5000
2,2′,3,3′,4,4′,5,6,6′-NonaBDE	**207**	50	250	2500
2,2′,3,3′,4,5,5′,6,6′-NonaBDE	**208**	50	250	2500
DecaBDE	**209**	500	2500	25,000
Labeled				
4,4′-DiBDE ($^{13}C_{12}$,99%)	**15**	100	100	100
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	100	100	100
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	100	100	100
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	100	100	100
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	100	100	100
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154**	100	100	100
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	100	100	100
2,2′,3,3′,4,4′,6,6′-OctaBDE ($^{13}C_{12}$,99%)	**197**	250	250	250
2,2′,3,3′,4,4′,5,5′,6-NonaBDE ($^{13}C_{12}$,99%)	**206**	500	500	500
2,2′,3,3′,4,4′,5,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**207**	250	250	250
2,2′,3,3′,4,5,5′,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**208**	250	250	250
DecaBDE ($^{13}C_{12}$,99%)	**209**	25,000	25,000	25,000

RoHS BDE Standard Mixtures

	Catalog #	Compound	Amount
NEW	EO-5426	**RoHS Screening PBDE Cleanup Spike**	1.2 mL in Nonane

Labeled	BDE	(ng/mL)
4,4′-DiBDE ($^{13}C_{12}$,99%)	**15**	1000
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	1000
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	1000
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	1000
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	1000
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154**	1000
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	1000
2,2′,3,3′,4,4′,6,6′-OctaBDE ($^{13}C_{12}$,99%)	**197**	2500
2,2′,3,3′,4,4′,5,5′,6-NonaBDE ($^{13}C_{12}$,99%)	**206**	5000
2,2′,3,3′,4,5,5′,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**208**	2500
DecaBDE ($^{13}C_{12}$,99%)	**209**	25,000

	Catalog #	Compound	Amount
NEW	EO-5427	**RoHS Screening PBDE Syringe Spike**	1.2 mL in Nonane

Labeled		
2,2′,3,3′,4,4′,5,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**207**	2500

	Catalog #	Compound	Amount
NEW	EO-5428	**RoHS Screening PBDE Native PAR Spike**	1.2 mL in Nonane

Unlabeled		
4,4′-DiBDE	**15**	1000
2,4,4′-TriBDE	**28**	1000
2,2′,4,4′-TetraBDE	**47**	1000
2,2′,4,4′,5-PentaBDE	**99**	1000
2,2′,4,4′,5,5′-HexaBDE	**153**	1000
2,2′,4,4′,5,6′-HexaBDE	**154**	1000
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	1000
2,2′,3,3′,4,4′,6,6′-OctaBDE	**197**	2500
2,2′,3,3′,4,4′,5,5′,6-NonaBDE	**206**	5000
2,2′,3,3′,4,4′,5,6,6′-NonaBDE	**207**	2500
2,2′,3,3′,4,5,5′,6,6′-NonaBDE	**208**	2500
DecaBDE	**209**	25,000

Brominated Diphenyl Ether (BDE) Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	BDE	CS1	CS2	CS3	CS4	CS5	CS6
2-MonoBDE	**1**	0.2	1	5	25	100	500
3-MonoBDE	**2**	0.2	1	5	25	100	500
4-MonoBDE	**3**	0.2	1	5	25	100	500
2,4-DiBDE	**7**	0.2	1	5	25	100	500
2,4′-DiBDE	**8**	0.2	1	5	25	100	500
2,6-DiBDE	**10**	0.2	1	5	25	100	500
3,3′-DiBDE	**11**	0.2	1	5	25	100	500
3,4-DiBDE	**12**	0.2	1	5	25	100	500
3,4′-DiBDE	**13**	0.2	1	5	25	100	500
4,4′-DiBDE	**15**	0.2	1	5	25	100	500
2,2′,4-TriBDE	**17**	0.2	1	5	25	100	500
2,3′,4-TriBDE	**25**	0.2	1	5	25	100	500
2,4,4′-TriBDE	**28**	0.2	1	5	25	100	500
2,4,6-TriBDE	**30**	0.2	1	5	25	100	500
2,4′,6-TriBDE	**32**	0.2	1	5	25	100	500
2′,3,4-TriBDE	**33**	0.2	1	5	25	100	500
3,3′,4-TriBDE	**35**	0.2	1	5	25	100	500
3,4,4′-TriBDE	**37**	0.2	1	5	25	100	500
2,2′,4,4′-TetraBDE	**47**	0.2	1	5	25	100	500
2,2′,4,5′-TetraBDE	**49**	0.2	1	5	25	100	500
2,3′,4,4′-TetraBDE	**66**	0.2	1	5	25	100	500
2,3′,4′,6-TetraBDE	**71**	0.2	1	5	25	100	500
2,4,4′,6-TetraBDE	**75**	0.2	1	5	25	100	500
3,3′,4,4′-TetraBDE	**77**	0.2	1	5	25	100	500
2,2′,3,4,4′-PentaBDE	**85**	0.3	1.5	7.5	37.5	150	750
2,2′,4,4′,5-PentaBDE	**99**	0.3	1.5	7.5	37.5	150	750
2,2′,4,4′,6-PentaBDE	**100**	0.3	1.5	7.5	37.5	150	750
2,3,4,5,6-PentaBDE	**116**	0.3	1.5	7.5	37.5	150	750
2,3′,4,4′,5-PentaBDE	**118**	0.3	1.5	7.5	37.5	150	750
2,3′,4,4′,6-PentaBDE	**119**	0.3	1.5	7.5	37.5	150	750
3,3′,4,4′,5-PentaBDE	**126**	0.3	1.5	7.5	37.5	150	750
2,2′,3,4,4′,5′-HexaBDE	**138**	0.6	3	15	75	300	1500
2,2′,4,4′,5,5′-HexaBDE	**153**	0.4	2	10	50	200	1000
2,2′,4,4′,5,6′-HexaBDE	**154**	0.4	2	10	50	200	1000
2,2′,4,4′,6,6′-HexaBDE	**155**	0.4	2	10	50	200	1000
2,3,4,4′,5,6-HexaBDE	**166**	0.4	2	10	50	200	1000
2,2′,3,4,4′,5,6-HeptaBDE	**181**	0.5	2.5	12.5	62.5	250	1250
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	0.5	2.5	12.5	62.5	250	1250
2,3,3′,4,4′,5,6-HeptaBDE	**190**	0.5	2.5	12.5	62.5	250	1250
Labeled							
4-MonoBDE ($^{13}C_{12}$,99%)	**3**	100	100	100	100	100	100
4,4′-DiBDE ($^{13}C_{12}$,99%)	**15**	100	100	100	100	100	100
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	100	100	100	100	100	100
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	100	100	100	100	100	100
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	100	100	100	100	100	100
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	100	100	100	100	100	100
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100**	100	100	100	100	100	100
2,3′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**118**	100	100	100	100	100	100
3,3′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**126**	150	150	150	150	150	150
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	200	200	200	200	200	200
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	250	250	250	250	250	250

Brominated Diphenyl Ether (BDE) Standard Mixtures

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

Labeled	BDE	EO-5100 (ng/mL)	EO-5100-10X-0.5 (ng/mL)
4-MonoBDE ($^{13}C_{12}$,99%)	**3**	100	1000
4,4′-DiBDE ($^{13}C_{12}$,99%)	**15**	100	1000
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	100	1000
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	100	1000
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	150	1500
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100**	150	1500
2,3′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**118**	150	1500
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	200	2000
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	250	2500

EO-5101	**Polybrominated Diphenyl Ether Performance Standard Solution**	1.2 mL in Nonane
EO-5101-10X-1.2	**Polybrominated Diphenyl Ether Performance Standard Solution (10X stock)**	1.2 mL in Nonane

Labeled		EO-5101	EO-5101-10X-1.2
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	100	1000
3,3′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**126**	150	1500

EO-5103	**Polybrominated Diphenyl Ether Predominant Congener Mixture**	1.2 mL in Nonane

Unlabeled		
2,2′,4-TriBDE	**17**	2500
2,4,4′-TriBDE	**28**	2500
2,2′,4,4′-TetraBDE	**47**	2500
2,3′,4,4′-TetraBDE	**66**	2500
2,3′,4′,6-TetraBDE	**71**	2500
2,2′,3,4,4′-PentaBDE	**85**	2500
2,2′,4,4′,5-PentaBDE	**99**	2500
2,2′,4,4′,6-PentaBDE	**100**	2500
2,2′,3,4,4′,5′-HexaBDE	**138**	3750
2,2′,4,4′,5,5′-HexaBDE	**153**	2500
2,2′,4,4′,5,6′-HexaBDE	**154**	2500
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	2500
2,3,3′,4,4′,5,6-HeptaBDE	**190**	2500
DecaBDE	**209**	10,000

Brominated Diphenyl Ether (BDE) Standard Mixtures

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

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

Brominated Diphenyl Ether (BDE) Standard Mixtures

Catalog #	Compound	Amount
EO-5099	**Polybrominated Diphenyl Ether Analytical Standard Solution**	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 ($^{13}C_{12}$,99%)	**3**	100
4,4′-DiBDE ($^{13}C_{12}$,99%)	**15**	100
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	100
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	100
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	100
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	150
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100**	150
2,3′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**118**	150
3,3′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**126**	150
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	200
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	250

Brominated Flame Retardant (BFR) Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	Congener	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
2,2′,4-TriBDE	**17**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,4,4′-TriBDE	**28**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,4,4′-TetraBDE	**47**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,3′,4,4′-TetraBDE	**66**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,4,4′,6-PentaBDE	**100**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,4,4′,5-PentaBDE	**99**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,4,4′-PentaBDE	**85**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,4,4′,5,6′-HexaBDE	**154**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,4,4′,5,5′-HexaBDE	**153**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,4,4′,5′,6-HeptaBDE	**183**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,3′,4,4′,5,6′-OctaBDE	**196**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,3′,4,4′,6,6′-OctaBDE	**197**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,4,4′,5,5′,6-OctaBDE	**203**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,3′,4,4′,5,5′,6-NonaBDE	**206**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,3′,4,4′,5,6,6′-NonaBDE	**207**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,3,3′,4,5,5′,6,6′-NonaBDE	**208**	0.2	0.5	1	5	10	50	100	500	1000	2000
DecaBDE	**209**	0.2	0.5	1	5	10	50	100	500	1000	2000
2,2′,4,4′,5,5′-Hexabromobiphenyl	**153**	0.2	0.5	1	5	10	50	100	500	1000	2000
Hexabromobenzene		0.2	0.5	1	5	10	50	100	500	1000	2000
1,2-Bis(pentabromophenyl) ethane		0.2	0.5	1	5	10	50	100	500	1000	2000
1,2-Bis(2,4,6-tribromophenoxy) ethane		0.2	0.5	1	5	10	50	100	500	1000	2000
γ-Hexabromocyclododecane		0.2	0.5	1	5	10	50	100	500	1000	2000
Labeled											
1,2,3,4-TCDD ($^{13}C_6$,99%)		25	25	25	25	25	25	25	25	25	25
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	100	100	100	100	100	100	100	100	100	100
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	75	75	75	75	75	75	75	75	75	75
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	75	75	75	75	75	75	75	75	75	75
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	75	75	75	75	75	75	75	75	75	75
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100**	75	75	75	75	75	75	75	75	75	75
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	75	75	75	75	75	75	75	75	75	75
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154**	75	75	75	75	75	75	75	75	75	75
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′,6,6′-OctaBDE ($^{13}C_{12}$,99%)	**197**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,5,5′,6-OctaBDE ($^{13}C_{12}$,99%)	**203**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′,5,5′,6-NonaBDE ($^{13}C_{12}$,99%)	**206**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,4′,5,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**207**	75	75	75	75	75	75	75	75	75	75
2,2′,3,3′,4,5,5′,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**208**	75	75	75	75	75	75	75	75	75	75
DecaBDE ($^{13}C_{12}$,99%)	**209**	500	500	500	500	500	500	500	500	500	500
2,2′,4,4′,5,5′-HexaBB ($^{13}C_{12}$,99%)	**153**	75	75	75	75	75	75	75	75	75	75
Hexabromobenzene ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
1,2-Bis(pentabromophenyl) ethane ($^{13}C_{14}$,99%)		75	75	75	75	75	75	75	75	75	75
1,2-Bis(2,4,6-tribromophenoxy) ethane ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
γ-Hexabromocyclododecane ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75

Brominated Flame Retardant (BFR) Standard Mixtures

	Catalog #	Compound	Amount
NEW	EO-5320-A	**CDC BFR Spiking Standard**	10 mL in Methanol

Labeled	Congener	(ng/mL)
2,4,4′-TriBDE ($^{13}C_{12}$,99%)	**28**	7.5
2,2′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**47**	7.5
2,2′,4,4′,6-PentaBDE ($^{13}C_{12}$,99%)	**100**	7.5
2,2′,4,4′,5-PentaBDE ($^{13}C_{12}$,99%)	**99**	7.5
2,2′,4,4′,5,6′-HexaBDE ($^{13}C_{12}$,99%)	**154**	7.5
2,2′,4,4′,5,5′-HexaBDE ($^{13}C_{12}$,99%)	**153**	7.5
2,2′,3,4,4′,5′,6-HeptaBDE ($^{13}C_{12}$,99%)	**183**	7.5
2,2′,3,3′,4,4′,6,6′-OctaBDE ($^{13}C_{12}$,99%)	**197**	7.5
2,2′,3,4,4′,5,5′,6-OctaBDE ($^{13}C_{12}$,99%)	**203**	7.5
2,2′,3,3′,4,4′,5,5′,6-NonaBDE ($^{13}C_{12}$,99%)	**206**	7.5
2,2′,3,3′,4,4′,5,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**207**	7.5
2,2′,3,3′,4,5,5′,6,6′-NonaBDE ($^{13}C_{12}$,99%)	**208**	7.5
DecaBDE ($^{13}C_{12}$,99%)	**209**	50
2,2′,4,4′,5,5′-HexaBB ($^{13}C_{12}$,99%)	**153**	7.5
Hexabromobenzene ($^{13}C_{6}$,99%)		7.5
1,2-Bis(pentabromophenyl) ethane ($^{13}C_{14}$,99%)		7.5
1,2-Bis(2,4,6-tribromophenoxy) ethane ($^{13}C_{12}$,99%)		7.5
γ-Hexabromocyclododecane ($^{13}C_{12}$,99%)		7.5

EO-5169	**BFR Recovery Spiking Solution**	10 mL in 88% Hexane/ 2% Dodecane/10% Nonane

Labeled		
1,2,3,4-TetraCDD ($^{13}C_{6}$,99%)		2.5
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	7.5
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139**	7.5
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	10

Notes

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}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.

^{13}C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Cambridge Isotope Laboratories, in cooperation with Cerilliant Corporation, is pleased to offer ^{13}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 ^{13}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.

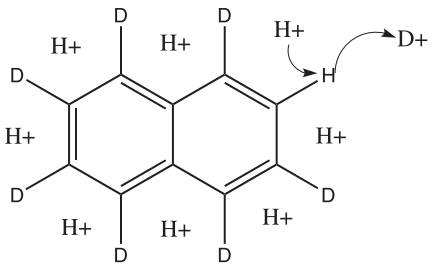
Deuterium-labeled PAH Metabolites are even more susceptible to the phenomena of back-exchange and loss of protons/deuterons in the mass spectrometer.

Similiar Mass Spectra

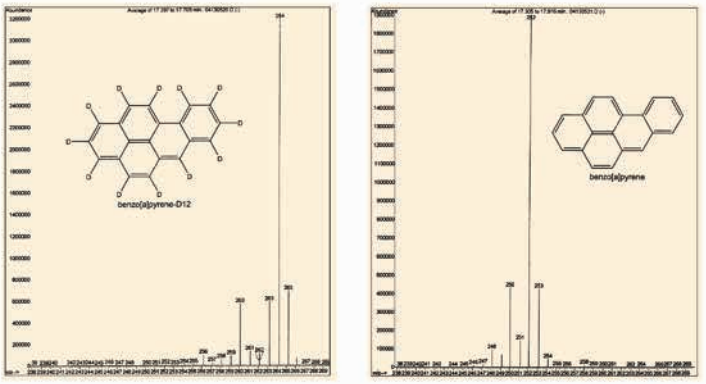
Even at lower voltages the parent ion loses a considerable number of protons or deuterons. Mass spectra of ^{13}C PAHs will show a succession of proton losses (M-1, M-2, M-3, M-4 etc., similar to native PAHs), while mass spectra of Deuterated PAHs will show a succession of deuteron losses (M-2,M-4,M-6, 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. ^{13}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_8 Deuterium-Exchange



Deuterated PAH Mass Spectra differ from Unlabeled Mass Spectra

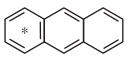
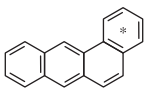
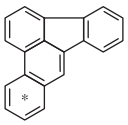
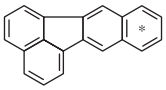
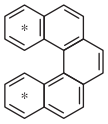
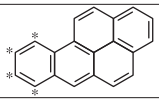
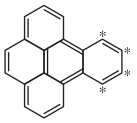
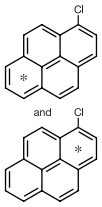
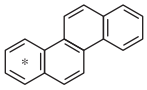
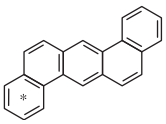
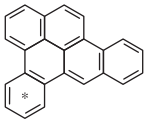


ISO Accreditation

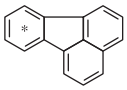
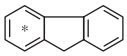
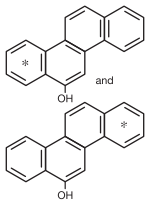
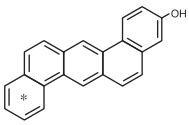
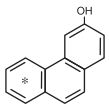
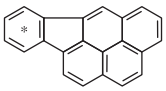
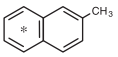
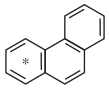
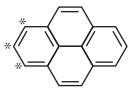
Adding to our list of firsts in the field of PAH reference standards, CIL is pleased to announce the availability of the first ^{13}C PAH parent compound standards manufactured under **ISO/ IEC 17025 and ISO Guide 34 accreditation**.

Cerilliant Corporation, CIL's longtime collaborator for ^{13}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.

^{13}C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound		Concentration	Amount
CLM-1643-1.2	**Acenaphthene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-2477-1.2	**Acenaphthylene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-1333-1.2	**Anthracene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3602-1.2	**Benz[*a*]anthracene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3599-1.2	**Benzo[*b*]fluoranthene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3756-1.2	**Benzo[*k*]fluoranthene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-1364-1.2	**Benzo[*g,h,i*]perylene ($^{13}C_{12}$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-2722-1.2	**Benzo[*a*]pyrene ($^{13}C_4$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-6170-1.2	**Benzo[*e*]pyrene (9,10,11,12-$^{13}C_4$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
NEW CLM-8267-1.2	**1-Chloropyrene (mix of ring labeling) ($^{13}C_6$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
CLM-3757-1.2	**Chrysene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3598-1.2	**Dibenz[*a,h*]anthracene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3835-1.2	**Dibenzo[*a,e*]pyrene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL

^{13}C-Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound		Concentration	Amount
CLM-3774-A	**Dibenzo[*a,i*]pyrene ($^{13}C_{12}$,99%)**		50 ± 5 µg/mL in Nonane	1.2 mL
CLM-3597-1.2	**Fluoranthene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3596-1.2	**Fluorene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-4860-1.2	**6-Hydroxychrysene (mix of ring labeling) ($^{13}C_6$,99%)**		50 ± 5 µg/mL in Acetonitrile	1.2 mL
NEW CLM-6890-1.2	**3-Hydroxydibenz[*a,h*]anthracene ($^{13}C_6$,99%)**		50 ± 5 µg/mL in Acetonitrile	1.2 mL
CLM-4859-1.2	**3-Hydroxyphenanthrene (ring-$^{13}C_6$,99%)**		50 ± 5 µg/mL in Acetonitrile	1.2 mL
CLM-3600-1.2	**Indeno[1,2,3-*cd*]pyrene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3621-1.2	**2-Methylnaphthalene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-1332-1.2	**Naphthalene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-2451-1.2	**Phenanthrene ($^{13}C_6$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL
CLM-3601-1.2	**Pyrene (1,2,3-$^{13}C_3$,99%)**		100 ± 10 µg/mL in Nonane	1.2 mL

Deuterium Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

	Catalog #	Compound	Formula	Concentration	Amount
	DLM-108-1.2	**Acenaphthene (D_{10},98%)**	$C_{12}D_{10}$	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	**Acenaphthylene (D_8,98%)**	$C_{12}D_8$	200 µg/mL in Isooctane	1.2 mL
	DLM-2204-0.1			Neat	0.1 g
	DLM-849-0.1	**Acridine (D_9,98%)**	$C_{13}D_9N$	Neat	0.1 g
	DLM-849-0.5			Neat	0.5 g
	DLM-102-1.2	**Anthracene (D_{10},98%)**	$C_{14}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-102-1			Neat	1 g
	DLM-102-5			Neat	5 g
	DLM-610-1.2	**Benz[*a*]anthracene (D_{12},98%)**	$C_{18}D_{12}$	200 µg/mL in Isooctane	1.2 mL
	DLM-610-0.1			Neat	0.1 g
	DLM-2136-1.2	**Benzo[*b*]fluoranthene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Isooctane	1.2 mL
	DLM-2136-0.01			Neat	0.01 g
	DLM-1923-1.2	**Benzo[*k*]fluoranthene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Isooctane	1.2 mL
	DLM-1923-0.01			Neat	0.01 g
	DLM-2135-1.2	**Benzo[*g,h,i*]perylene (D_{12},98%)**	$C_{22}D_{12}$	200 µg/mL in Toluene-D_8	1.2 mL
	DLM-2135-0.01			Neat	0.01 g
	DLM-258-1.2	**Benzo[*a*]pyrene (D_{12},98%)**	$C_{20}D_{12}$	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	**Benzo[*e*]pyrene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Isooctane	1.2 mL
	DLM-257-0.01			Neat	0.01 g
NEW	DLM-2005-1.2	**2-Chloronaphthalene (D_7,98%)**	$C_{10}D_7Cl$	100 µg/mL in Nonane	1.2 mL
	DLM-261-1.2	**Chrysene (D_{12},98%)**	$C_{18}D_{12}$	200 µg/mL in Toluene-D_8	1.2 mL
	DLM-261-0.1			Neat	0.1 g
	DLM-261-1			Neat	1 g
	DLM-2715-1.2	**Coronene (D_{12},97%)**	$C_{24}D_{12}$	200 µg/mL in Benzene	1.2 mL
NEW	DLM-2715-0.01			Neat	0.1 g
	DLM-2715-0.1			Neat	1 g
	DLM-3843-1.2	**Dibenz[*a,j*]acridine (D_{13},98%)**	$C_{21}D_{13}N$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-677-1.2	**Dibenz[*a,h*]anthracene (D_{14},98%)**	$C_{22}D_{14}$	200 µg/mL in Toluene-D_8	1.2 mL
	DLM-677-0.1			Neat	0.1 g
	DLM-3740-1.2	**Dibenzo[*a,i*]pyrene (D_{14},98%)**	$C_{24}D_{14}$	200 µg/mL in Toluene-D_8	1.2 mL
	DLM-3841-1.2	**7H-Dibenzo[*c,g*]carbazole (D_{12},98%)**	$C_{20}D_{13}N$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-2845-1.2	**9,10-Dimethylanthracene (D_{14},98%)**	$C_{16}D_{14}$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-2852-1.2	**1,6-Dimethylnaphthalene (D_{12},98%)**	$C_{12}D_{12}$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-2854-1.2	**1,8-Dimethylnaphthalene (D_{12},98%)**	$C_{12}D_{12}$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-2853-1.2	**2,6-Dimethylnaphthalene (D_{12},98%)**	$C_{12}D_{12}$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-2140-1.2	**Fluoranthene (D_{10},98%)**	$C_{16}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-2140-0.1			Neat	0.1 g
	DLM-1123-1.2	**Fluorene (D_{10},98%)**	$C_{13}D_{10}$	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	**Indeno[1,2,3-*cd*]pyrene (D_{12},98%)**	$C_{22}D_{12}$	200 µg/mL in Isooctane	1.2 mL
	DLM-2148-0.01			Neat	0.01 g
	DLM-3842-1.2	**5-Methylchrysene (methyl-D_3,98%)**	$C_{19}D_3H_{11}$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-1607-1	**1-Methylnaphthalene (D_{10},98%)**	$C_{11}D_{10}$	Neat	1 g
	DLM-1322-1.2	**2-Methylnaphthalene (D_{10},98%)**	$C_{11}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-365-1.2	**Naphthalene (D_8,99%)**	$C_{10}D_8$	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
NEW	DLM-3875-10	**Naphthalene (D_8,99.5%)**	$C_{10}D_8$	Neat	10 g
	DLM-3836-1.2	**5-Nitroacenaphthene (D_9,98%)**	$C_{12}D_9NO_2$	50 µg/mL in Toluene-D_8	1.2 mL
	DLM-4712-1.2	**9-Nitroanthracene (D_9,98%)**	$C_{14}D_9NO_2$	50 µg/mL in Toluene-D_8	1.2 mL

Deuterium Labeled Polycyclic Aromatic Hydrocarbon (PAH) Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-3839-1.2	**6-Nitrochrysene (D_{11},98%)**	$C_{18}D_{11}NO_2$	50 µg/mL in Toluene-D_8	1.2 mL
DLM-4711-1.2	**3-Nitrofluoranthene (D_9,98%)** (CP: 87%)	$C_{16}D_9NO_2$	50 µg/mL in Toluene-D_8	1.2 mL
DLM-3837-1.2	**2-Nitrofluorene (D_9,98%)**	$C_{13}D_9NO_2$	50 µg/mL in Toluene-D_8	1.2 mL
DLM-1528-1.2	**1-Nitropyrene (D_9,98%)**	$C_{18}D_9NO_2$	50 µg/mL in Toluene-D_8	1.2 mL
DLM-366-1.2	**Perylene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Toluene-D_8	1.2 mL
DLM-366-0.1			Neat	0.1 g
DLM-366-1			Neat	1 g
DLM-371-1.2	**Phenanthrene (D_{10},98%)**	$C_{14}D_{10}$	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	**Pyrene (D_{10},98%)**	$C_{16}D_{10}$	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	***o*-Terphenyl (D_{14},98%)**	$C_6D_4(C_6D_5)_2$	Neat	1g
DLM-382-1.2	***p*-Terphenyl (D_{14},98)**	$C_6D_4(C_6D_5)_2$	200 µg/mL in Isooctane	1.2 mL
DLM-382-1			Neat	1 g
DLM-601-0.1	**Triphenylene (D_{12},98%)**	$C_{18}D_{12}$	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	**Acenaphthene**	$C_{12}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7422-1.2	**Acenaphthylene**	$C_{12}H_{8}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7412-1.2	**Anthracene**	$C_{14}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-2415-1.2	**Benz[*a*]anthracene**	$C_{18}H_{12}$	1 mg/mL in Methanol	1.2 mL
	ULM-2415-0.1			Neat	0.1 g
	ULM-2416-1.2	**Benzo[*b*]fluoranthene**	$C_{20}H_{12}$	1 mg/mL in Acetone	1.2 mL
	ULM-2416-0.1			Neat	0.1 g
NEW	ULM-8155-25	**Benzo[*c*]phenanthrene**	$C_{18}H_{12}$	Neat	25 mg
	ULM-2411-25	**Benzo[*j*]fluoranthene**	$C_{20}H_{12}$	Neat	25 mg
	ULM-2417-0.1	**Benzo[*k*]fluoranthene**	$C_{20}H_{12}$	Neat	0.1 g
	ULM-2418-1.2	**Benzo[*g,h,i*]perylene**	$C_{22}H_{12}$	1 mg/mL in Methylene chloride	1.2 mL
	ULM-2418-0.1			Neat	0.1 g
NEW	ULM-8717-1.2	**Benzo[*a*]pyrene**	$C_{20}H_{12}$	200 µg/mL in Isooctane	1.2 mL
	ULM-2412-0.1			Neat	0.1 g
	ULM-7423-1.2	**Benzo[*e*]pyrene**	$C_{20}H_{12}$	200 µg/mL in Isooctane	1.2 mL
NEW	ULM-8269-1.2	**9-Chloroanthracene**	$C_{14}H_{9}Cl$	50 µg/mL in Toluene	1.2 mL
NEW	ULM-8270-1.2	**9-Chlorophenanthrene**	$C_{14}H_{9}Cl$	50 µg/mL in Toluene	1.2 mL
NEW	ULM-8268-1.2	**1-Chloropyrene**	$C_{16}H_{9}Cl$	50 µg/mL in Toluene	1.2 mL
	ULM-7424-1.2	**Chrysene**	$C_{18}H_{12}$	200 µg/mL in Toluene	1.2 mL
	ULM-6576-1.2	**Coronene**	$C_{24}H_{12}$	200 µg/mL in Benzene	1.2 mL
	ULM-3884-1.2	**Dibenz[*a,j*]acridine**	$C_{21}H_{13}N$	50 µg/mL in Toluene	1.2 mL
	ULM-3884-25			Neat	25 mg
	ULM-2422-1.2	**Dibenz[*a,h*]anthracene**	$C_{22}H_{14}$	1 mg/mL in Methylene chloride	1.2 mL
	ULM-2422-0.1			Neat	0.1 g
	ULM-3885-1.2	**7H-Dibenzo[*c,g*]carbazole**	$C_{20}H_{13}N$	50 µg/mL in Toluene	1.2 mL
	ULM-6671-1.2	**Dibenzo[*a,e*]fluoranthene**	$C_{24}H_{14}$	200 µg/mL in Toluene	1.2 mL
	ULM-1226-0.01	**Dibenzo[*a,e*]pyrene**	$C_{24}H_{14}$	Neat	0.01 g
	ULM-1227-0.01	**Dibenzo[*a,h*]pyrene**	$C_{24}H_{14}$	Neat	0.01 g
	ULM-2423-1.2	**Dibenzo[*a,i*]pyrene**	$C_{24}H_{14}$	200 µg/mL in Toluene	1.2 mL
	ULM-1253-1.2	**Dibenzo[*a,l*]pyrene**	$C_{24}H_{14}$	200 µg/mL in Toluene	1.2 mL
	ULM-1253-25			Neat	25 mg
	ULM-7421-1.2	**Fluoranthene**	$C_{16}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7414-1.2	**Fluorene**	$C_{13}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-6181-1.2	**1,8-Dimethylnaphthalene**	$C_{12}H_{12}$	50 µg/mL in Toluene	1.2 mL
	ULM-7271-1.2	**2,6-Dimethylnaphthalene**	$C_{12}H_{12}$	50 µg/mL in Toluene	1.2 mL
NEW	ULM-8464-1.2	**2-Hydroxyphenanthrene**	$C_{14}H_{10}O$	50 µg/mL in Toluene	1.2 mL
NEW	ULM-7446-1.2	**3-Hydroxyphenanthrene**	$C_{14}H_{10}O$	50 µg/mL in Acetonitrile	1.2 mL
	ULM-2426-1.2	**Indeno[1,2,3-*cd*]pyrene**	$C_{22}H_{12}$	1 mg/mL in Methylene chloride	1.2 mL
	ULM-2426-25			Neat	25 mg
	ULM-6235-1.2	**5-Methylchrysene**	$C_{19}H_{14}$	50 µg/mL in Toluene	1.2 ml
	ULM-7416-1.2	**2-Methylnaphthalene**	$C_{11}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7425-1.2	**Naphthalene**	$C_{10}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-3883-1.2	**2-Nitrofluorene**	$C_{13}H_{9}NO_{2}$	50 µg/mL in Toluene	1.2 mL
	ULM-3978-1.2	**1-Nitropyrene**	$C_{18}H_{9}NO_{2}$	50 µg/mL in Toluene	1.2 mL
	ULM-7426-1.2	**Perylene**	$C_{20}H_{12}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7427-1.2	**Phenanthrene**	$C_{14}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7417-1.2	**Pyrene**	$C_{16}H_{10}$	200 µg/mL in Toluene	1.2 mL
	ULM-7428-1.2	***p*-Terphenyl**	$C_{18}H_{14}$	200 µg/mL in Isooctane	1.2 mL

Isotope Labeled PAH Standard Mixtures

Catalog #	Compound	Amount
ES-4087	**^{13}C-Labeled EPA 16 PAH Cocktail**	1.2 mL in Nonane

Labeled	(µg/mL)
Acenaphthene ($^{13}C_6$,99%)	5
Acenaphthylene ($^{13}C_6$,99%)	5
Anthracene ($^{13}C_6$,99%)	5
Benz[*a*]anthracene ($^{13}C_6$,99%)	5
Benzo[*b*]fluoranthene ($^{13}C_6$,99%)	5
Benzo[*k*]fluoranthene ($^{13}C_6$,99%)	5
Benzo[*g,h,i*]perylene ($^{13}C_{12}$,99%)	5
Benzo[*a*]pyrene ($^{13}C_4$,99%)	5
Chrysene ($^{13}C_6$,99%)	5
Dibenz[*a,h*]anthracene ($^{13}C_6$,99%)	5
Fluoranthene ($^{13}C_6$,99%)	5
Fluorene ($^{13}C_6$,99%)	5
Indeno[1,2,3-*cd*]pyrene ($^{13}C_6$,99%)	5
Naphthalene ($^{13}C_6$,99%)	5
Phenanthrene ($^{13}C_6$,99%)	5
Pyrene ($^{13}C_3$,99%)	5

Catalog #	Compound	Amount
ES-2528	**D-Labeled PAH Cocktail for CARB Method 429**	1 mL in Benzene-D_6

Labeled	
Acenaphthene (D_{10},98%)	100
Acenaphthylene (D_8,98%)	100
Anthracene (D_{10},98%)	100
Benz[*a*]anthracene (D_{12},98%)	100
Benzo[*b*]fluoranthene (D_{12},98%)	100
Benzo[*k*]fluoranthene (D_{12},98%)	100
Benzo[*g,h,i*]perylene (D_{12},98%)	100
Benzo[*a*]pyrene (D_{12},98%)	100
Chrysene (D_{12},98%)	100
Dibenz[*a,h*]anthracene (D_{14},98%)	100
Fluoranthene (D_{10},98%)	100
Fluorene (D_{10},98%)	100
Indeno[1,2,3-*cd*]pyrene (D_{12},98%)	100
Naphthalene (D_8,99%)	100
Phenanthrene (D_{10},98%)	100
Pyrene (D_{10},98%)	100

Catalog #	Compound	Amount
ES-2044	**D-Labeled PAH Surrogate Cocktail**	1 mL in 50% Methylene chloride-D_2/50% Methanol-OD

Labeled	
Acenaphthylene (D_8,98%)	200
Benzo[*a*]pyrene (D_{12},98%)	200
Benzo[*g,h,i*]perylene (D_{12},98%)	200
Fluoranthene (D_{10},98%)	200
Naphthalene (D_8,99%)	200
Phenanthrene (D_{10},98%)	200
Pyrene (D_{10},98%)	200

	Catalog #	Compound	Amount
NEW	ES-5386	**PAH-SIM Recovery Standard Mixture**	1.2 mL in Methylene chloride-D_2

Labeled	
2-Methylnaphthalene (D_{10},98%)	1000
Anthracene (D_{10},98%)	1000
***p*-Terphenyl (D_{14},98%)**	1000
Benzo[*e*]pyrene (D_{12},98%)	1000

Isotope Labeled PAH Standard Mixtures

Catalog #	Compound	Amount
ES-2043	**"EEC Six" PAH Cocktail**	1.2 mL in Benzene-D_6

Labeled	(µg/mL)
Benzo[*b*]fluoranthene (D_{12},98%)	1000
Benzo[*k*]fluoranthene (D_{12},98%)	1000
Benzo[*g,h,i*]perylene (D_{12},98%)	1000
Benzo[*a*]pyrene (D_{12},98%)	1000
Indeno[1,2,3-*cd*]pyrene (D_{12},98%)	1000
Fluoranthene (D_{10},98%)	1000

	Catalog #	Compound	Amount
NEW	ES-5164	**PAH Surrogate Standard Mixture**	10 mL in 90% Toluene/ 10% Isooctane

Labeled	
Naphthalene (D_8,99%)	200
Benz[*a*]anthracene (D_{12},98%)	200
Phenanthrene (D_{10},98%)	200
Fluoranthene (D_{10},98%)	200
Benzo[*b*]fluoranthene (D_{12},98%)	200
Benzo[*a*]pyrene (D_{12},98%)	200
Benzo[*g,h,i*]perylene (D_{12},98%)	200
Indeno[1,2,3-*cd*]pyrene (D_{12},98%)	200
Dibenz[*a,h*]anthracene (D_{14},98%)	200
Acenaphthylene (D_8,98%)	200
Acenaphthene (D_{10},98%)	200
Fluorene (D_{10},98%)	200
Pyrene (D_{10},98%)	200
Benzo[*k*]fluoranthene (D_{12},98%)	200
Perylene (D_{12},98%)	200
Chrysene (D_{12},98%)	200

	Catalog #	Compound	Amount
NEW	ES-5438	**PAH Native Standard Mixture**	1.2 mL in 90% Toluene/ 10% Isooctane

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	**1,2,3,4-Tetrachloronaphthalene ($^{13}C_{10}$,99%)** (CP: 96%)	10 µg/mL in Isooctane	1.2 mL
ECN-5241	**1,3,5,7-Tetrachloronaphthalene ($^{13}C_{10}$,99%)**	10 µg/mL in Isooctane	1.2 mL
ECN-5250	**1,2,3,5,7-Pentachloronaphthalene ($^{13}C_{10}$,99%)**	10 µg/mL in Isooctane	1.2 mL
ECN-5260	**1,2,3,4,5,7-Hexachloronaphthalene ($^{13}C_{10}$,99%)**	10 µg/mL in Isooctane	1.2 mL
ECN-5261	**1,2,3,5,6,7-Hexachloronaphthalene ($^{13}C_{10}$,99%)** (contains 0.2% native)	10 µg/mL in Isooctane	1.2 mL
ECN-5270	**1,2,3,4,5,6,7-Heptachloronaphthalene ($^{13}C_{10}$,99%)** (contains 2% native)	10 µg/mL in Isooctane	1.2 mL
ECN-5280	**Octachloronaphthalene ($^{13}C_{10}$,99%)**	10 µg/mL in Isooctane	1.2 mL

Unlabeled Polychlorinated Naphthalene (PCN) Standards

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

Polychlorinated Naphthalene (PCN) Standard Mixtures

Catalog #	Compound	Amount
ECN-5102	**Tetra-Octa PCN Mixture**	1.2 mL in Isooctane

Labeled	(µg/mL)
1,2,3,4-TetraCN ($^{13}C_{10}$,99%)	1.0
1,3,5,7-TetraCN ($^{13}C_{10}$,99%)	1.0
1,2,3,5,7-PentaCN ($^{13}C_{10}$,99%)	1.0
1,2,3,5,6,7-HexaCN ($^{13}C_{10}$,99%)	1.0
1,2,3,4,5,6,7-HeptaCN ($^{13}C_{10}$,99%)	1.0
OctaCN ($^{13}C_{10}$,99%)	1.0

ECN-5178	**Tetra-Octa PCN Mixture**	1.2 mL in Nonane

Unlabeled	
1,2,3,4-TetraCN	1.0
1,3,5,7-TetraCN	1.0
1,2,3,5,7-PentaCN	1.0
1,2,3,5,6,7-HexaCN	1.0
1,2,3,4,5,6,7-HeptaCN	1.0
OctaCN	1.0

Halowax Technical Mixtures

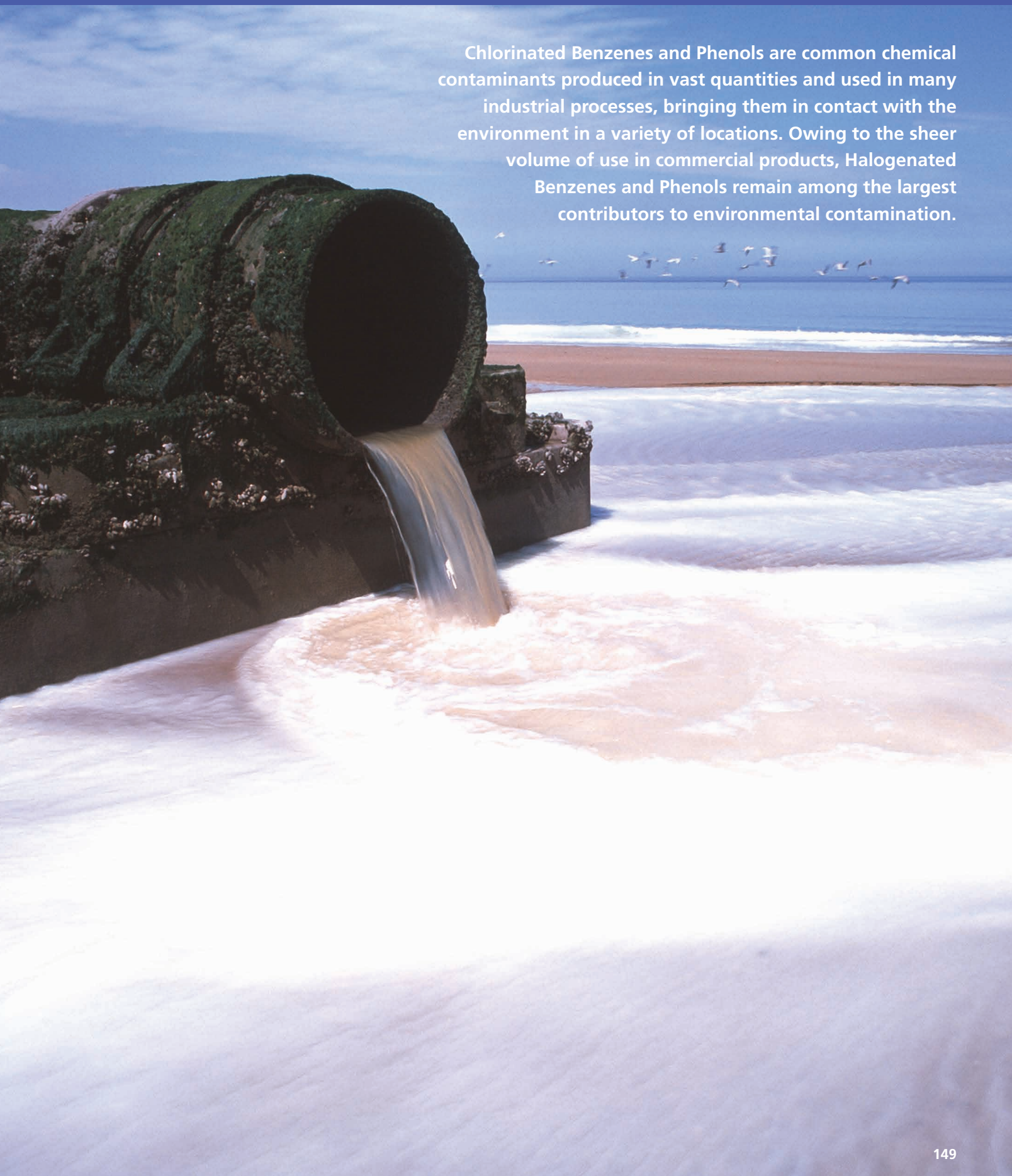
ECN-1000	**HALOWAX 1000**	100 µg/mL in Hexane	2 mL
ECN-1013	**HALOWAX 1013**	100 µg/mL in Hexane	2 mL
ECN-1051	**HALOWAX 1051**	100 µg/mL in Hexane	2 mL

Substituted Benzothiophenes

Subsituted 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	**2,3,7,8-Tetrachlorodibenzothiophene (unlabeled)**	$C_{14}Cl_4H_4S$	50 µg/mL in Nonane	1.2 mL
DLM-4308-1.2	**Benzo[*b*]naphtho[2,1-*d*]-thiophene (D_{10},96%)**	$C_{16}D_{10}S$	100 µg/mL in Benzene-D_6	1.2 mL
ULM-7430-1.2	**Benzo[*b*]naphtho[2,1-*d*]-thiophene (unlabeled)**	$C_{16}H_{10}S$	100 µg/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	**^{13}C-Labeled Chlorobenzene Cocktail Solution – Mono, Di, Tri Isomers**	1.2 mL in Isooctane
EM-1724-B	**^{13}C-Labeled Chlorobenzene Cocktail Solution – Mono, Di, Tri Isomers**	1.2 mL in Methanol

Labeled	(µg/mL)
Chlorobenzene ($^{13}C_6$,99%)	100
1,4-Dichlorobenzene ($^{13}C_6$,99%)	100
1,2,4-Trichlorobenzene ($^{13}C_6$,99%)	100

EM-1725-A	**^{13}C-Labeled Chlorobenzene Cocktail Solution – Tetra, Penta, Hexa Isomers**	1.2 mL in Isooctane
EM-1725-B	**^{13}C-Labeled Chlorobenzene Cocktail Solution – Tetra, Penta, Hexa Isomers**	1.2 mL in Methanol

Labeled	
1,2,4,5-Tetrachlorobenzene ($^{13}C_6$,99%)	100
Pentachlorobenzene ($^{13}C_6$,99%)	100
Hexachlorobenzene ($^{13}C_6$,99%)	100

NEW ES-5401	**^{13}C-Labeled Mono-Hexa Chlorobenzene Solution**	1.2 mL in Toluene

Labeled	
Chlorobenzene ($^{13}C_6$,99%)	500
1,4-Dichlorobenzene ($^{13}C_6$,99%)	500
1,2,3-Trichlorobenzene ($^{13}C_6$,99%)	500
1,2,3,4-Tetrachlorobenzene ($^{13}C_6$,99%)	500
Pentachlorobenzene ($^{13}C_6$,99%)	500
Hexachlorobenzene ($^{13}C_6$,99%)	500

NEW ES-5406	**Native Mono-Hexa Chlorobenzene Solution**	1.2 mL in Toluene

Unlabeled	
Chlorobenzene	500
1,4-Dichlorobenzene	500
1,2,3-Trichlorobenzene	500
1,2,3,4-Tetrachlorobenzene	500
Pentachlorobenzene	500
Hexachlorobenzene	500

EM-1726-A	**^{13}C-Labeled Chlorophenol Cocktail Solution – Mono, Di, Tri Isomers**	1.2 mL in Isooctane
EM-1726-B	**^{13}C-Labeled Chlorophenol Cocktail Solution – Mono, Di, Tri Isomers**	1.2 mL in Methanol

Labeled	
4-Chlorophenol ($^{13}C_6$,99%)	100
2,4-Dichlorophenol ($^{13}C_6$,99%)	100
2,4,6-Trichlorophenol ($^{13}C_6$,99%)	100

EM-1727-A	**^{13}C-Labeled Chlorophenol Cocktail Solution – Tri, Tetra, Penta Isomers**	1.2 mL in Isooctane
EM-1727-B	**^{13}C-Labeled Chlorophenol Cocktail Solution – Tri, Tetra, Penta Isomers**	1.2 mL in Methanol

Labeled	
2,4,5-Trichlorophenol ($^{13}C_6$,99%)	100
2,3,4,5-Tetrachlorophenol ($^{13}C_6$,99%)	100
Pentachlorophenol ($^{13}C_6$,99%)	100

U.S. EPA Method 1653A Standard Mixtures

Catalog #	Compound	Amount
EM-4173	**Method 1653A Labeled Chlorophenolic Derivatives Mixture** (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)
2,4-Dichlorophenol ($^{13}C_6$,99%)	250
4-Chloroguaiacol ($^{13}C_6$,99%)	250
4,5-Dichlorocatechol (ring-$^{13}C_6$,99%)	250
4,5,6-Trichloroguaiacol ($^{13}C_6$,99%)	250
Pentachlorophenol ($^{13}C_6$,99%)	250
3,4,5,6-Tetrachloroguaiacol ($^{13}C_6$,99%)	250
3,4,5,6-Tetrachlorocatechol (ring-$^{13}C_6$,99%)	250
3,4,5-Trichlorophenol (unlabeled) (I.S.)	250

Vial 2 (Acetone) – 1 mL

Labeled	
5-Chlorovanillin (ring-$^{13}C_6$,99%)	250

EM-4181	**Method 1653A Regulated Chlorophenolics Mixture-1**	1 mL in Methanol

Unlabeled	
Pentachlorophenol	1000
Tetrachloroguaiacol	1000
3,4,5-Trichlorocatechol	1000
3,4,5-Trichloroguaiacol	500
4,5,6-Trichloroguaiacol	500
2,4,6-Trichlorophenol	500
Tetrachlorocatechol	1000
2,3,4,6-Tetrachlorophenol	500
3,4,6-Trichlorocatechol	1000
3,4,6-Trichloroguaiacol	500
2,4,5-Trichlorophenol	500

EM-4182	**Method 1653A Regulated Chlorophenolics Mixture-2**	1 mL in Acetone

Unlabeled	
Trichlorosyringol	500

EM-4183	**Method 1653A Other Chlorophenolics Mixture-1**	1 mL in Methanol

Unlabeled	
4-Chlorocatechol	250
4-Chlorophenol	250
3,6-Dichlorocatechol	500
3,4-Dichloroguaiacol	500
4,6-Dichloroguaiacol	500
2,6-Dichlorophenol	500
4-Chloroguaiacol	250
3,4-Dichlorocatechol	500
4,5-Dichlorocatechol	500
4,5-Dichloroguaiacol	500
2,4-Dichlorophenol	500

U.S. EPA Method 1653A Standard Mixtures

Catalog #	Compound	Amount
EM-4184	**Method 1653A Other Chlorophenolics Mixture-2**	1 mL in Acetone

Unlabeled	(µg/mL)
2-Chlorosyringealdehyde	500
5-Chlorovanillin	500
6-Chlorovanillin	500
2,6-Dichlorosyringealdehyde	1000
5,6-Dichlorovanillin	1000

EM-4185	**Set of Regulated Chlorophenolics Mixtures** **1 Each: EM-4181 and EM-4182**	2 x 1 mL
EM-4186	**Set of Other Chlorophenolics Mixtures** **1 Each: EM-4183 and EM-4184**	2 x 1 mL
EM-4180	**Set of Chlorophenolics Mixtures** **1 Each: EM-4181, EM-4182, EM-4183 and EM-4184**	4 x 1 mL

U.S. EPA Method 1653 Standard Mixtures

EM-4018	**Method 1653 Unlabeled Chloroguaiacol Cocktail**	1 mL in Acetone

Unlabeled	
4-Chloroguaiacol	250
3,4-Dichloroguaiacol	500
4,5-Dichloroguaiacol	500
4,6-Dichloroguaiacol	500
3,4,5-Trichloroguaiacol	500
3,4,6-Trichloroguaiacol	500
4,5,6-Trichloroguaiacol	500
Tetrachloroguaiacol	1000

EM-4028	**Instrument Performance Standard**	1 mL in Acetone

Unlabeled	
2,2′-Difluorobiphenyl	5000

U.S. EPA CLP DMC Standard Mixtures

Catalog #	Compound	Amount
ES-5037	**CLP Semi-Volatiles DMC Stock Solution**	1.2 mL in Methylene chloride-D_2

Labeled	(µg/mL)
Phenol (D_5,98%)	2000
Bis(2-chloroethyl) ether (D_8,98%)	2000
2-Chlorophenol (D_4,98%)	2000
4-Methylphenol (*p*-Cresol) (D_8,98%)	2000
Nitrobenzene (D_5,99%)	2000
2-Nitrophenol (D_4,98%)	2000
2,4-Dichlorophenol (D_3,98%)	2000
4-Chloroaniline (D_4,98%)	2000
Dimethyl phthalate (dimethyl-D_6,98%)	2000
Acenaphthylene (D_8,98%)	2000
4-Nitrophenol (D_4,98%)	2000
Fluorene (D_{10},98%)	2000
4,6-Dinitro-2-methylphenol (ring-D_2,98%)	2000
Anthracene (D_{10},98%)	2000
Pyrene (D_{10},98%)	2000
Benzo[*a*]pyrene (D_{12},98%)	2000

ES-5038	**CLP OLC Volatiles DMC Stock Solutions** **1 Each: ES-5038-1 and ES-5038-2**	1 set
ES-5038-1	**CLP OLC Volatiles Non-Ketone DMC Stock Solution**	1 mL in Methanol-OD
ES-5038-2	**CLP OLC Volatiles Ketone DMC Stock Solution**	0.5 mL in Methanol-D_4

Labeled	ES-5038-1	ES-5038-2
Vinyl chloride (D_3,98%)	100	–
Chloroethane (D_5,98%)	100	–
1,1-Dichloroethene (D_2,98%)	100	–
2-Butanone (1,1,1,3,3,D_5,98%)	–	200
Chloroform (D,98%)	100	–
1,2-Dichloroethane (D_4,99%)	100	–
Benzene (D_6,99.5%)	100	–
1,2-Dichloropropane (D_6,98%)	100	–
Toluene (D_8,99.6%)	100	–
***cis/trans*-1,3-Dichloropropene (D_4,98%)**	100	–
2-Hexanone (1,1,1,3,3-D_5,98%)	–	200
Bromoform (D,99.5%)	100	–
1,1,2,2-Tetrachloroethane (D_2,99.6%)	100	–
1,2-Dichlorobenzene (D_4,99%)	100	–

ES-5038-10X	**CLP Volatiles DMC Stock Solutions (10X concentration)** **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

U.S. EPA CLP DMC Standard Mixtures

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

Labeled	ES-5286 (µg/mL)	ES-5286-10X (µg/mL)
Vinyl chloride (D_3,98%)	100	1000
Chloroethane (D_5,98%)	100	1000
1,1-Dichloroethylene (2,2-D_2,98%)	100	1000
Chloroform (D,99.8%)	100	1000
1,2-Dichloroethane (D_4,99%)	100	1000
Benzene (D_6,99.5%)	100	1000
1,2-Dichloropropane (D_6,98%)	100	1000
Toluene (D_8,99.5%)	100	1000
1,3-Dichloropropene (D_4,98%) *cis/trans* mix	100	1000
1,1,2,2-Tetrachloroethane (D_2,99.6%)	100	1000
1,2-Dichlorobenzene (D_4,99%)	100	1000

NEW	ES-5287	**CLP SOM Volatiles Ketone DMC Stock Solution**	0.5 mL in Methanol-OD
NEW	ES-5287-10X	**CLP SOM Volatiles Ketone DMC 10X Stock Solution**	0.5 mL in Methanol-OD

Labeled	ES-5287	ES-5287-10X
2-Butanone (1,1,1,3,3-D_5,98%)	500	5000
2-Hexanone (1,1,1,3,3-D_5,98%)	500	5000

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

Labeled	ES-5288	ES-5288-10X
1,4-Dioxane (*p*-Dioxane) (D_8,99%)	1250	12,500

U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2036	**Acid Extractables Mixture-3**	1 mL in Benzene-D_6

Labeled		(µg/mL)
(EPA 222A)	**4-Chloro-3-methylphenol (2,6-D_2,98%)**	5000
(EPA 224A)	**2-Chlorophenol (3,4,5,6-D_4,99%)**	5000
(EPA 231A)	**2,4-Dichlorophenol (3,5,6-D_3,98%)**	5000
(EPA 234A)	**2,4-Dimethylphenol (3,5,6-D_3,98%)**	5000
(EPA 260A)	**4,6-Dinitro-2-methylphenol (3,5-D_2,98%)**	5000
(EPA 259A)	**2,4-Dinitrophenol (3,5,6-D_3,98%)**	5000
(EPA 257A)	**2-Nitrophenol (3,4,5,6-D_4,98%)**	5000
(EPA 258A)	**4-Nitrophenol (2,3,5,6-D_4,98%)**	5000
(EPA 264A)	**Pentachlorophenol ($^{13}C_6$,99%)**	5000
(EPA 265A)	**Phenol (2,3,4,5,6-D_5,98%)**	5000
(EPA 631A)	**2,4,5-Trichlorophenol (3,6-D_2,98%)**	5000
(EPA 221A)	**2,4,6-Trichlorophenol (3,5-D_2,98%)**	5000

ES-2022-A	**Base Neutrals Mixture-4.1**	1 mL in Benzene-D_6

Labeled		
(EPA 277B)	**Acenaphthylene (D_8,98%)**	5000
(EPA 274B)	**Benzo[*b*]fluoranthene (D_{12},98%)**	5000
(EPA 279B)	**Benzo[*g,h,i*]perylene (D_{12},98%)**	5000
(EPA 273B)	**Benzo[*a*]pyrene (D_{12},98%)**	5000
(EPA 242B)	**Bis(2-chloroisopropyl) ether (D_{12},95%)**	5000
(EPA 226B)	**1,3-Dichlorobenzene (D_4,98%)**	5000
(EPA 235B)	**2,4-Dinitrotoluene (3,5,6-D_3,98%)**	5000
(EPA 231B)	**Fluoranthene (D_{10},98%)**	5000
(EPA 252B)	**Hexachloro-1,3-butadiene ($^{13}C_4$,98%)**	5000
(EPA 253B)	**Hexachlorocyclopentadiene (random-$^{13}C_4$,99%)***	5000
(EPA 281B)	**Phenanthrene (D_{10},98%)**	5000

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

ES-2002	**Base Neutrals Mixture-4.3**	1 mL in Benzene-D_6

Labeled		
(EPA 241B)	**4-Bromophenyl phenyl ether (phenyl-D_5,98%)**	5000
(EPA 220B)	**2-Chloronaphthalene (D_7,98%)**	5000
(EPA 240B)	**4-Chlorophenyl phenyl ether (phenyl-D_5,98%)**	5000
(EPA 268B)	**Di-*n*-butyl phthalate (3,4,5,6-D_4,99%)**	5000
(EPA 270B)	**Diethyl phthalate (3,4,5,6-D_4,99%)**	5000
(EPA 269B)	**Di-*n*-octyl phthalate (3,4,5,6-D_4,99%)**	5000
(EPA 209B)	**Hexachlorobenzene ($^{13}C_6$,99%)**	5000
(EPA 212B)	**Hexachloroethane (1-^{13}C,99%)**	5000
(EPA 254B)	**Isophorone (3-methyl-D_3;2,4,4,6,6-D_5,98%)**	5000
(EPA 208B)	**1,2,4-Trichlorobenzene (3,5,6-D_3,98%)**	5000

U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2041-A	**Base Neutrals Dilution Mixture-5**	10 mL in Benzene-D_6

Labeled		(µg/mL)
(EPA 602B)	**2-Aminonaphthalene (ring-D_7,98%)**	500
(EPA 205B)	**Benzidine (ring-D_8,98%)**	500
(EPA 511B)	**Di-*n*-butylamine (D_{18},98%)**	500
(EPA 228B)	**3,3′-Dichlorobenzidine (ring-D_6,98%)**	500
(EPA 607B)	**Diphenylamine (D_{10},98%)**	500
(EPA 237B)	**1,2-Diphenylhydrazine (D_{10},98%)**	500
(EPA 603B)	**2-Methylpyridine (D_7,98%)**	500
(EPA 262B)	***N*-Nitrosodiphenylamine (2,2′,4,4′,6,6′-D_6,98%)**	500

ES-2026	**Base Neutrals Dilution Mixture-5.2**	1 mL in Benzene-D_6

Labeled		
(EPA 628B)	**Carbazole-NH (D_8,98%)**	5000
(EPA 261B)	***N*-Nitrosodimethylamine (dimethyl-D_6,98%)**	5000
(EPA 263B)	***N*-Nitrosodi-*n*-propylamine (dipropyl-D_{14},98%)**	5000

ES-2025-A	**Base Neutrals Dilution Mixture-5.1** **Contains One Each of ES-2041-A and ES-2026**	1 Set

ES-2003	**Base Neutrals Mixture-6.2**	2 x 1 mL in 50% Benzene-D_6 and 50% Methylene chloride-D_2

Labeled		
(EPA 201B)	**Acenaphthene (D_{10},99%)**	2500
(EPA 278B)	**Anthracene (D_{10},98%)**	2500
(EPA 275B)	**Benzo[*k*]fluoranthene (D_{12},98%)**	2500
(EPA 218B)	**Bis(2-chloroethyl) ether (D_8,98%)**	2500
(EPA 276B)	**Chrysene (D_{12},98%)**	2500
(EPA 280B)	**Fluorene (D_{10},98%)**	2500
(EPA 255B)	**Naphthalene (D_8,99%)**	2500
(EPA 284B)	**Pyrene (D_{10},98%)**	2500

ES-2004	**Base Neutrals Mixture-6.3**	1 mL in Benzene-D_6

Labeled		
(EPA 272B)	**Benz[*a*]anthracene (D_{12},98%)**	5000
(EPA 267B)	**Butyl benzyl phthalate (3,4,5,6-D_4,99%)**	5000
(EPA 243B)	**Bis(2-chloroethoxy) methane (D_8,98%)**	5000
(EPA 266B)	**Bis(2-ethylhexyl) phthalate (3,4,5,6-D_4,99%)**	5000
(EPA 282B)	**Dibenz[*a,h*]anthracene (D_{14},98%)**	5000
(EPA 225B)	**1,2-Dichlorobenzene (D_4,99%)**	5000
(EPA 227B)	**1,4-Dichlorobenzene (D_4,98%)**	5000
(EPA 271B)	**Dimethyl phthalate (3,4,5,6-D_4,99%)**	5000
(EPA 236B)	**2,6-Dinitrotoluene (methyl-D_3,98%)**	5000
(EPA 256B)	**Nitrobenzene (D_5,99%)**	5000
(EPA 629B)	**1,2,3-Trichlorobenzene (4,5,6-D_3,98%)**	5000

U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2032	**Purgeables/Volatiles Mixture-E.1**	1 mL in Methanol-D_4

Labeled		(µg/mL)
(EPA 206V)	**Carbon tetrachloride (^{13}C,99%)**	50
(EPA 207V)	**Chlorobenzene (D_5,99%)**	50
(EPA 223V)	**Chloroform (^{13}C,99%)**	50
(EPA 213V)	**1,1-Dichloroethane (2,2,2-D_3,98%)**	50
(EPA 229V)	**1,1-Dichloroethylene (2,2-D_2,98%)**	50
(EPA 244V)	**Methylene chloride (D_2,99.9%)**	50
(EPA 232V)	**1,2-Dichloropropane (D_6,98%)**	50
(EPA 214V)	**1,1,2-Trichloroethane ($^{13}C_2$,99%)**	50

ES-2006	**Purgeables/Volatiles Mixture-F**	1 mL in Methanol-D_4

Labeled		
EPA 204V)	**Benzene (D_6,99.5%)**	50
(EPA 247V)	**Bromoform (^{13}C,99%)**	50
(EPA 210V)	**1,2-Dichloroethane (D_4,99%)**	50
(EPA 238V)	**Ethylbenzene (D_{10},98%)**	50
(EPA 215V)	**1,1,2,2-Tetrachloroethane (D_2,99.6%)**	50
(EPA 286V)	**Toluene (D_8,99.5%)**	50
(EPA 211V)	**1,1,1-Trichloroethane (2,2,2-D_3,98%)**	50

NEW ES-2007-A	**Purgeables/Volatiles Mixture-G**	1 mL in Methanol-D_4

Labeled		
EPA 616V)	**Acetone (D_6,99.9%)**	250
(EPA 203V)	**Acrylonitrile (D_3,99%)**	250
(EPA 246V)	**Bromomethane (D_3,99%)**	250
(EPA 614V)	**2-Butanone (4,4,4-D_3,98%)**	250
(EPA 216V)	**Chloroethane (D_5,98%)**	250
(EPA 245V)	**Chloromethane (D_3,99%)**	250
(EPA 615V)	**Diethyl ether (D_{10},99%)**	250
(EPA 288V)	**Vinyl chloride (D_3,98%)**	250

ES-2008	**Purgeables/Volatiles Mixture-H**	1 mL in Methanol-D_4

Labeled		
EPA 248V)	**Bromodichloromethane (^{13}C,99%)**	50
(EPA 251V)	**Chlorodibromomethane (^{13}C,99%)**	50
(EPA 30V)	**1,2-Dichloroethylene (1,2-D_2,98%)**	50
(EPA 33V)	**1,3-Dichloropropene (D_4,98%)**	50
(EPA 627V)	**1,4-Dioxane (D_8,99%)**	50
(EPA 285V)	**Tetrachloroethylene ($^{13}C_2$,99%)**	50
(EPA 287V)	**1,1,2-Trichloroethylene ($^{13}C_2$,99%)**	50

U.S. EPA Methods 1624/1625 Standard Mixtures

Catalog #	Compound	Amount
ES-2033	**Semi-Volatiles Mixture-1/Appendix C**	1 mL in Benzene-D_6

Labeled		(µg/mL)
(EPA 617B)	***n*-Decane (D_{22},98%)**	5000
(EPA 605B)	**Dibenzofuran (D_8,98%)**	5000
(EPA 604B)	**Dibenzothiophene (D_8,98%)**	5000
(EPA 612B)	**Biphenyl (D_{10},98%)**	5000
(EPA 608B)	**Diphenyl ether (phenyl-D_{10},98%)**	5000
(EPA 606B)	***n*-Dodecane (D_{26},98%)**	5000
(EPA 621B)	***n*-Eicosane (D_{42},98%)**	5000
(EPA 619B)	***n*-Hexadecane (D_{34},98%)**	5000
(EPA 613B)	**2-(4-Methylphenyl) propane (D_{14},98%)**	5000
(EPA 610B)	**Styrene (2,3,4,5,6-D_5,98%)**	5000
(EPA 609B)	**α-Terpineol (D_3,98%)**	5000
(EPA 623B)	***n*-Tetracosane (D_{50},98%)**	5000
(EPA 626B)	***n*-Triacontane (D_{62},98%)**	5000

	Compound	Amount
ES-2042	**EPA 1624/1625 Standards Kit**	1 Set

Contains 1 ampoule each of the following

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

Notes

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) 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
NEW	DLM-183-1.2	**Benzophenone (D_{10},98%)**	$C_6D_5COC_6D_5$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8303-1.2	**Benzophenone (unlabeled)**	$C_6H_5COC_6H_5$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8285-1.2	***n*-Butyl paraben (ring-$^{13}C_6$,99%)**	$HO*C_6H_4CO_2(CH_2)_3CH_3$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-8287-1.2	***n*-Butyl paraben (unlabeled)**	$HOC_6H_4CO_2(CH_2)_3CH_3$	1 mg/mL in Methanol	1.2 mL
NEW	DLM-4762-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (dimethyl-D_6,98%)**	$CH_3C_6H_4CON(CH_2CD_3)_2$	100 µg/mL in Methylene chloride	1.2 mL
NEW	DLM-4762-D-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (dimethyl-D_6,98%)**	$CH_3C_6H_4CON(CH_2CD_3)_2$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	ULM-7975-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (unlabeled)**	$CH_3C_6H_4CON(CH_2CH_3)_2$	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7975-D-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (unlabeled)**	$CH_3C_6H_4CON(CH_2CH_3)_2$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	CLM-8008-1.2	**Hexachlorophene ($^{13}C_{13}$,99%)**	$*CH_2[*C_6H(Cl)_3OH]_2$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8009-1.2	**Hexachlorophene (unlabeled)**	$CH_2[C_6H(Cl)_3OH]_2$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-4745-1.2	**4-Hydroxybenzoic acid (ring-$^{13}C_6$,99%)**	$*C_6CH_6O_3$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-8251-1.2	**4-Hydroxybenzoic acid (unlabeled)**	$C_7H_6O_3$	1 mg/mL in Methanol	1.2 mL
NEW	CLM-8249-1.2	**Methyl paraben (Methyl 4-hydroxybenzoate) (ring-$^{13}C_6$,99%)**	$*C_6C_2H_8O_3$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-8250-1.2	**Methyl paraben (Methyl 4-hydroxybenzoate) (unlabeled)**	$C_8H_8O_3$	1 mg/mL in Methanol	1.2 mL
NEW	CLM-7885-1.2	**Methyl Triclosan (2,4,4-Trichloro-2-methoxydiphenyl ether) (ring-$^{13}C_{12}$,99%)**	$*C_{12}CH_9Cl_3O_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7884-1.2	**Methyl Triclosan (2,4,4-Trichloro-2-methoxydiphenyl ether) (unlabeled)**	$C_{12}CH_9Cl_3O_2$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8525-1.2	**Oxybenzone (phenyl-$^{13}C_6$,99%)**	$HOC_6H_3(OCH_3)CO*C_6H_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8531-1.2	**Oxybenzone (unlabeled)**	$HOC_6H_3(OCH_3)COC_6H_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-7286-1.2	**3,4,4′-Trichlorocarbanilide (Triclocarban) (4′-chlorophenyl-$^{13}C_6$,99%)**	$*C_6C_7H_9Cl_3N_2O$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7968-1.2	**3,4,4′-Trichlorocarbanilide (Triclocarban) (unlabeled)**	$C_{13}H_9Cl_3N_2O$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-6779-1.2	**2′,4,4′-Trichloro-2-hydroxydiphenyl ether (Triclosan) ($^{13}C_{12}$,99%)**	$*C_{12}H_7Cl_3O_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6935-1.2	**2′,4,4′-Trichloro-2-hydroxydiphenyl ether (Triclosan) (unlabeled)**	$C_{12}H_7Cl_3O_2$	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	**Cholesterol (3,4-$^{13}C_2$,99%)**	$^*C_2C_{25}H_{46}O$	Neat	100 mg
NEW	DLM-3057-0.1	**Cholesterol (25,26,26,26,27,27,27-D_7,98%)**	$C_{27}H_{39}D_7O$	Neat	100 mg
NEW	DLM-2607-0.1	**Cholesterol (2,2,3,4,4,6-D_6,97-98%)**	$C_{27}H_{40}D_6O$	Neat	100 mg
NEW	DLM-2218-0.1MG	**Cortisol (9,11,12,12-D_4,98%)**	$C_{21}D_4H_{26}O_5$	Neat	0.1 mg
NEW	DLM-2218-A-1.2	**Cortisol (9,11,12,12-D_4,98%)**	$C_{21}D_4H_{26}O_5$	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7823-A-1.2	**Cortisol (unlabeled)**	$C_{21}H_{30}O_5$	100 µg/mL in Methylene chloride	1.2 mL
NEW	DLM-8049-0.005	**Dehydroepiandrosterone (DHEA) (2,2,3,4,4,6-D_6,99%)** (CP: 97%)	$C_{19}H_{22}D_6O_2$	Neat	5 mg
NEW	DLM-170-1.2	**Diethylstilbestrol (*cis/trans* mix) (ring-3,3',5,5'-diethyl-1,1,1',1'-D_8,98%)**	$HOC_6D_2H_2(CH_3CD_2)C{=}C(CD_2CH_3)C_6H_2D_2OH$	100 µg/mL in Methylene chloride-D_2	1.2 mL
NEW	DLM-170-D-1.2	**Diethylstilbestrol (*cis/trans* mix) (ring-3,3',5,5'-diethyl-1,1,1',1'-D_8,98%)**	$HOC_6D_2H_2(CH_3CD_2)C{=}C(CD_2CH_3)C_6H_2D_2OH$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	ULM-7921-1.2	**Diethylstilbestrol (*cis/trans* mix) (unlabeled)**	$HOC_6H_4(CH_3CH_2)C{=}C(CH_2CH_3)C_6H_4OH$	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7921-D-1.2	**Diethylstilbestrol (*cis/trans* mix) (unlabeled)**	$HOC_6H_4(CH_3CH_2)C{=}C(CH_2CH_3)C_6H_4OH$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	CLM-7936-0.1MG	**DL-Estradiol (13,14,15,16,17,18-$^{13}C_6$,99%)**	$C_{12}{}^*C_6H_{24}O_2$	Neat	0.1 mg
NEW	CLM-7936-1.2	**DL-Estradiol (13,14,15,16,17,18-$^{13}C_6$,99%)**	$C_{12}{}^*C_6H_{24}O_2$	100 µg/mL in Methanol	1.2 mL
	CLM-803-1.2	**Estradiol (3,4-$^{13}C_2$,99%)**	$^*C_2C_{16}H_{24}O_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7449-1.2	**Estradiol (unlabeled)**	$C_{18}H_{24}O_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-8583	**Estriol (2,4,16,17-D_4,98%)**	$C_{18}D_4H_{20}O_3$		Inquire
NEW	ULM-8218	**Estriol (unlabeled)**	$C_{18}H_{24}O_3$		Inquire
NEW	CLM-7935-0.1MG	**DL-Estrone (13,14,15,16,17,18-$^{13}C_6$,99%)**	$C_{12}{}^*C_6H_{22}O_2$	Neat	0.1 mg
NEW	CLM-7935-1.2	**DL-Estrone (13,14,15,16,17,18-$^{13}C_6$,99%)**	$C_{12}{}^*C_6H_{22}O_2$	100 µg/mL in Methanol	1.2 mL
	CLM-673-1.2	**Estrone (3,4-$^{13}C_2$,90%)**	$^*C_2C_{16}H_{22}O_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7212-1.2	**Estrone (unlabeled)**	$C_{18}H_{22}O_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3375-1.2	**Ethynylestradiol (20,21-$^{13}C_2$,99%)**	$^*C_2C_{18}H_{24}O_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7211-1.2	**Ethynylestradiol (unlabeled)**	$C_{20}H_{24}O_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8012-0.1MG	**2-Hydroxyestradiol (13,14,15,16,17,18-$^{13}C_6$,99%)**	$^*C_6C_{12}H_{24}O_3$	Neat	0.1 mg
NEW	ULM-8135-0.1MG	**2-Hydroxyestradiol (unlabeled)**	$C_{18}H_{24}O_3$	Neat	0.1 mg
NEW	CLM-8011-0.1MG	**2-Hydroxyestrone (13,14,15,16,17,18-$^{13}C_6$,99%)**	$^*C_6C_{12}H_{22}O_3$	Neat	0.1 mg
NEW	ULM-8134-0.1MG	**2-Hydroxyestrone (unlabeled)**	$C_{18}H_{22}O_3$	Neat	0.1mg
NEW	CLM-8016-0.1MG	**2-Hydroxyestrone-3-methyl ether (13,14,15,16,17,18-$^{13}C_6$,99%)**	$C_{13}{}^*C_6H_{24}O_3$	Neat	0.1 mg

Sex and Steroidal Hormone Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	ULM-8133-0.1MG	**2-Hydroxyestrone-3-methyl ether (unlabeled)**	$C_{19}H_{24}O_3$	Neat	0.1 mg
NEW	CLM-8013-0.1MG	**4-Hydroxyestrone (13,14,15,16,17,18-$^{13}C_6$,99%)**	$*C_6C_{12}H_{22}O_3$	Neat	0.1 mg
NEW	ULM-8261-0.1MG	**4-Hydroxyestrone (unlabeled)**	$C_{18}H_{22}O_3$	Neat	0.1 mg
NEW	CLM-8015-0.1MG	**2-Methoxyestradiol (13,14,15,16,17,18-$^{13}C_6$,99%)**	$*C_6C_{13}H_{26}O_3$	Neat	0.1 mg
NEW	ULM-8137-0.1MG	**2-Methoxyestradiol (unlabeled)**	$C_{19}H_{26}O_3$	Neat	0.1 mg
NEW	CLM-8014-0.1MG	**2-Methoxyestrone (13,14,15,16,17,18-$^{13}C_6$,99%)**	$*C_6C_{13}H_{24}O_3$	Neat	0.1 mg
NEW	ULM-8263-0.1MG	**2-Methoxyestrone (unlabeled)**	$C_{19}H_{24}O_3$	Neat	0.1 mg
NEW	CLM-8017-0.1MG	**4-Methoxyestrone (13,14,15,16,17,18-$^{13}C_6$,99%)**	$C_{13}*C_6H_{24}O_3$	Neat	0.1 mg
NEW	ULM-8262-0.1MG	**4-Methoxyestrone (unlabeled)**	$C_{19}H_{24}O_3$	Neat	0.1 mg
NEW	DLM-3979-5	**19-Nortestosterone (16,16,17-D_3,98%)**	$C_{18}H_{23}D_3O_2$	Neat	5 mg
NEW	DLM-6909-1.2	**Progesterone (2,2,6,6,17,21,21,21-D_8,96%)**	$C_{21}H_{22}D_8O_2$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	ULM-8219-1.2	**Progesterone (unlabeled)**	$C_{21}H_{30}O_2$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	DLM-8085-1.2	**Testosterone (2,2,4,6,6-D_5,98%)**	$C_{19}D_5H_{23}O_2$	100 µg/mL in Methylene chloride	1.2 mL
NEW	DLM-8085-D-1.2	**Testosterone (2,2,4,6,6,D_5,98%)**	$C_{19}D_5H_{23}O_2$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	DLM-683-1.2	**Testosterone (1,2-D_2,98%)**	$C_{19}D_2H_{26}O_2$	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-8081-1.2	**Testosterone (unlabeled)**	$C_{19}H_{28}O_2$	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-8081-D-1.2	**Testosterone (unlabeled)**	$C_{19}H_{28}O_2$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	CLM-6725-0.1MG	**L-Thyroxine (tyrosine ring-$^{13}C_6$,99%)** (CP: 90%)	$*C_6C_9H_{11}I_4NO_4$	Neat	0.1 mg

Prescription and Non-Prescription Drug Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CNLM-3726-1.2	**Acetaminophen (acetyl-$^{13}C_2$,99%;^{15}N,98%)**	*CH_3*CO*NHC_6H_4OH	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7629-1.2	**Acetaminophen (unlabeled)**	$CH_3CONHC_6H_4OH$	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-3008-1.2	**Amitriptyline·HCl (*N,N*-dimethyl-D_6,98%)**	$C_{20}H_{17}D_6N$·HCl	100 µg/mL in Methanol	1.2 mL
NEW	ULM-8350-1.2	**Amitriptyline·HCl (unlabeled)**	$C_{20}H_{23}N$·HCl	100 µg/mL in Methanol	1.2 mL
NEW	CLM-514-1.2	**Caffeine (trimethyl-$^{13}C_3$,99%)**	*$C_3C_5H_{10}N_4O_2$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-7653-1.2	**Caffeine (unlabeled)**	$C_8H_{10}N_4O_2$	100 µg/mL in Methanol	1.2 mL
	DLM-2806-1.2	**Carbamazepine (D_{10},98%)**	$C_{15}D_{10}H_2N_2O$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-6581-1.2	**Carbamazepine (unlabeled)** (CP: 97%)	$C_{15}H_{12}N_2O$	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-1287-1.2	**Clonidine (4,4,5,5-imidazoline-D_4,98%)**	$C_9H_5D_4N_3Cl_2$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-8349-1.2	**Clonidine (unlabeled)**	$C_9H_9N_3Cl_2$	100 µg/mL in Methanol	1.2 mL
NEW	C-041	**Codeine (D_6,98%)**	$C_{18}H_{15}D_6NO_3$	1.0 mg/mL in Methanol	1.0 mL
NEW	C-006	**Codeine (unlabeled)**	$C_{18}H_{21}NO_3$	1.0 mg/ mL in Methanol	1.0 mL
NEW	C-035	**(+/-)-Cotinine (D_3,98%)**	$C_{10}H_9D_3N_2O$	1.0 mg/ mL in Methanol	1.0 mL
NEW	C-016	**(-)-Cotinine (unlabeled)**	$C_{10}H_{12}N_2O$	1.0 mg/ mL in Methanol	1.0 mL
NEW	D-902	**Diazepam (D_5,98%)**	$C_{16}H_7D_5N_2O$·HCl	100 µg/ mL in Methanol	1.0 mL
NEW	D-907	**Diazepam (unlabeled)**	$C_{16}H_{12}N_2O$·HCl	1.0 mg/ mL in Methanol	1.0 mL
NEW	CNLM-411-1.2	**5,5-Diphenylhydantoin (2-^{13}C,99%;1,3-$^{15}N_2$,98%)**	*$CC_{14}H_{12}$*N_2O_2	100 µg/ mL in Methanol	1.2 mL
NEW	ULM-8533-1.2	**5,5-Diphenylhydantoin (unlabeled)**	$C_{15}H_{12}N_2O_2$	100 µg/ mL in Methanol	1.2 mL
NEW	F-919	**Fluoxetine oxalate (D_6,98%)**	$C_{17}H_{12}D_6F_3NO·C_2H_2O_4$	100 µg/ mL in Methanol	1.0 mL
NEW	F-918	**Fluoxetine·HCl (unlabeled)**	$C_{17}H_{18}F_3NO$·HCl	1.0 mg/mL in Methanol	1.0 mL
NEW	DLM-8221-1.2	**Gemfibrozil (2,2-dimethyl-D_6,98%)**	$C_{15}D_6H_{16}O_3$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	ULM-8225-1.2	**Gemfibrozil (unlabeled)**	$C_{15}H_{22}O_3$	100 µg/mL in *p*-Dioxane	1.2 mL
	CLM-6943-1.2	**Ibuprofen (propionic-$^{13}C_3$,99%)**	*$C_3C_{10}H_{18}O_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7275-1.2	**Ibuprofen (unlabeled)**	$C_{13}H_{18}O_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-3035-1.2	**Imipramine·HCl (2,4,6,8-D_4,98%)**	$C_{19}H_{20}D_4N_2$·HCl	100 µg/mL in Methanol	1.2 mL
NEW	I-902	**Imipramine (unlabeled)**	$C_{19}H_{24}N_2$	1.0 mg/mL in Methanol	1.0 mL
NEW	L-902	**Lorazepam (D_4,98%)**	$C_{15}H_6D_4N_2O_2Cl_2$	100 µg/mL in Acetonitrile	1.0 mL
NEW	L-901	**Lorazepam (unlabeled)**	$C_{15}H_{10}N_2O_2Cl_2$	1.0 mg/mL in Acetonitrile	1.0 mL

Prescription and Non-Prescription Drug Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CDLM-7665-1.2	**Naproxen (methyl-^{13}C,99% methyl-D_3,98%)**	*$CC_{13}D_3H_{11}O_3$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7709-1.2	**Naproxen (unlabeled)**	$C_{14}H_{14}O_3$	100 µg/mL in Acetonitrile	1.2 mL
NEW	N-922	**Norfluoxetine oxalate (D_6,98%)**	$C_{16}H_{10}D_6F_3NO{\cdot}C_2H_2O_4$	100 µg/mL in Methanol	1.0 mL
NEW	N-923	**Norfluoxetine oxalate (unlabeled)**	$C_{16}H_{16}F_3NO{\cdot}C_2H_2O_4$	1.0 mg/mL in Methanol	1.0 mL
NEW	DLM-3039-1MG	**Phenylbutazone (unlabeled)**	$C_{19}D_{10}H_{10}N_2O_2$	Neat	1 mg
NEW	ULM-7378	**Phenylbutazone (unlabeled)**	$C_{19}H_{20}N_2O_2$		Inquire
NEW	CLM-7892	**Resorcinol ($^{13}C_6$,99%)**	*$C_6H_6O_2$		Inquire
NEW	CLM-8370-1.2	**Thiabendazole (ring-$^{13}C_6$,99%)**	C_4*$C_6H_7N_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8371-1.2	**Thiabendazole (unlabeled)**	$C_{10}H_7N_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-6861-1.2	**Warfarin (phenyl-D_5,98%)**	$C_{19}H_{11}D_5O_4$	100 µg/mL in Acetonitrile-D_3	1.2 mL
NEW	ULM-7242-1.2	**Warfarin (unlabeled)**	$C_{19}H_{16}O_4$	100 µg/mL in Acetonitrile	1.2 mL

Veterinary and Human Antibiotic Standards

NEW	CLM-7407-1MG	**Amoxicillin·$3H_2O$ (phenyl-$^{13}C_6$,99%)**	*$C_6C_{10}H_{19}N_3O_5S{\cdot}3H_2O$	Neat	1 mg
NEW	DLM-119-1.2	**(+/-)-Chloramphenicol (ring-D_4, benzyl-D_1,98%)**	$NO_2(C_6D_4)CD(OH)CH(NHCOCHCl_2)CH_2OH$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-6687-1.2	**(+/-)-Chloramphenicol (unlabeled)**	$NO_2(C_6H_4)CH(OH)CH(NHCOCHCl_2)CH_2OH$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CNLM-7539-1.2	**Ciprofloxacin·HCl (2,3,carboxyl-$^{13}C_3$,99%; quinoline-^{15}N,98%)**	*$C_3C_{14}H_{18}F$*$NN_2O_3{\cdot}HCl$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-7710-1.2	**Ciprofloxacin·HCl (unlabeled)**	$C_{17}H_{18}FN_3O_3{\cdot}HCl$	100 µg/mL in Methanol	1.2 mL
NEW	CLM-3672-1.2	**Erythromycin** (90-95% Erythromycin A) **(*N,N*-dimethyl-$^{13}C_2$,~90%)**	*$C_2C_{35}H_{67}NO_{13}$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-4322-1.2	**Erythromycin (unlabeled)**	$C_{37}H_{67}NO_{13}$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3045-1.2	**Sulfamethazine (phenyl-$^{13}C_6$,90%)**	H_2N*$C_6H_4SO_2NH(C_6N_2H_7)$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7220-1.2	**Sulfamethazine (unlabeled)**	$H_2NC_6H_4SO_2NH(C_6N_2H_7)$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-6944-1.2	**Sulfamethoxazole (ring-$^{13}C_6$,99%)**	C_4*$C_6H_{11}N_3O_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7527-1.2	**Sulfamethoxazole (unlabeled)**	$C_{10}H_{11}N_3O_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-7988-A-1.2	**Trimethoprim ($^{13}C_3$,99%)**	*$C_3C_{11}H_{18}N_4O_3$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-7989-A-1.2	**Trimethoprim (unlabeled)**	$C_{14}H_{18}N_4O_3$	50 µg/mL in Methanol	1.2 mL

Food and Drinking Water Analysis Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-813-1.2	**Acrylamide (+100 ppm hydroquinone) (1,2,3-$^{13}C_3$,99%)**	H_2*C=CH*$CONH_2$	1 mg/mL in Methanol	1.2 mL
	ULM-6721-1.2	**Acrylamide (+100 ppm hydroquinone) (unlabeled)**	H_2C=$CHCONH_2$	1 mg/mL in Methanol	1.2 mL
	DLM-7170-1.2	**1-Aminohydantoin hydrochloride (AHD) (5,5-D_2,98%)**	$C_3H_3D_2N_3O_2Cl$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-7188-1.2	**1-Aminohydantoin hydrochloride (AHD) (unlabeled)**	$C_3H_5N_3O_2$·HCl	100 µg/mL in Methanol	1.2 mL
	DLM-7171-1.2	**3-Amino-2-oxazolidone (AOZ) (ring-D_4,98%)**	$C_3H_2D_4N_2O_2$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-7189-1.2	**3-Amino-2-oxazolidone (AOZ) (unlabeled)**	$C_3H_6N_2O_2$·HCl	100 µg/mL in Methanol	1.2 mL
	DLM-7172-1.2	**5-(4-Morpholinylmethyl)-3-amino-2-oxazolidinone (AMOZ) (4,4,5,5′,5′-D_5,98%)**	$C_8H_{10}D_5N_3O_3$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-7190-1.2	**5-(4-Morpholinylmethyl)-3-amino-2-oxazolidinone (AMOZ) (unlabeled)**	$C_8H_{15}N_3O_3$	100 µg/mL in Methanol	1.2 mL
NEW	CLM-8589-1.2	**Ammelide (ring-$^{13}C_3$,99%)**	*$C_3H_4N_4O_2$	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
NEW	ULM-8590-1.2	**Ammelide (unlabeled)**	$C_3H_4N_4O_2$	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
NEW	CLM-8316-1.2	**Ammeline (Desethyldesisopropylhydroxyatrazine) (ring-$^{13}C_3$,99%)**	*$C_3H_5N_5O$	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
NEW	ULM-8323-1.2	**Ammeline (Desethyldesisopropylhydroxyatrazine) (unlabeled)**	$C_3H_5N_5O$	100 µg/mL in Water/ Diethylamine (80/20 V/V)	1.2 mL
NEW	CLM-4748-1.2	**1,6-Anhydro-*beta*-D-glucose (Levoglucosan) ($^{13}C_6$,98%)**	*$C_6H_{10}O_5$	100 µg/mL in DMSO	1.2 mL
NEW	ULM-8000-1.2	**1,6-Anhydro-*beta*-D-glucose (Levoglucosan) (unlabeled)**	$C_6H_{10}O_5$	100 µg/mL in DMSO	1.2 mL
NEW	DLM-119-1.2	**Chloramphenicol (D_5,98%)**	$NO_2C_6D_4C_5DH_5O_3NCl_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-6687-1.2	**(+/-)-Chloramphenicol (unlabeled)**	$NO_2C_6H_4C_5H_6O_3NCl_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	DLM-4633-1.2	**3-Chloro-1,2-propanediol (~10% 2-Chloro-1,3-propanediol) (propane-D_5,98%)**	$ClCD_2CDOHCD_2OH$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-7998-1.2	**3-Chloro-1,2-propanediol (unlabeled)**	$ClCH_2CHOHCH_2OH$	1 mg/mL in Methanol	1.2 mL
NEW	CNLM-4661-1.2	**Cyanuric acid ($^{13}C_3$,99%;$^{15}N_3$,98%+)** (CP: 90%+)	*C_3H_3*N_3O_3	100 µg/mL in Water	1.2 mL
NEW	CNLM-4661-10X-1.2	**Cyanuric acid ($^{13}C_3$,99%;$^{15}N_3$,98%+)** (CP: 90%+)	*C_3H_3*N_3O_3	1000 µg/mL in Water	1.2 mL
NEW	ULM-8157-1.2	**Cyanuric acid (unlabeled)**	$C_3H_3N_3O_3$	100 µg/mL in Water	1.2 mL
NEW	DLM-1632-1.2	**Diethylene glycol (D_8,98%)**	$C_4D_8H_2O_3$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-8235-1.2	**Diethylene glycol (unlabeled)**	$C_4H_{10}O_3$	1 mg/mL in Methanol	1.2 mL
NEW	CNLM-8150-1.2	**Melamine ($^{13}C_3$,99%;amino-$^{15}N_3$,98%)**	*C_3H_6*N_3N_3	100 µg/mL in Water	1.2 mL
NEW	CNLM-8150-10X-1.2	**Melamine ($^{13}C_3$,99%;amino-$^{15}N_3$,98%)**	*C_3H_6*N_3N_3	1000 µg/mL in Water	1.2 mL
NEW	ULM-8156-1.2	**Melamine (unlabeled)**	$C_3H_6N_3N_3$	100 µg/mL in Water	1.2 mL

Food and Drinking Water Analysis Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	DLM-4412-25	**(-)-Menthol (1,2,6,6-D_4,98%)**	$C_{10}H_{16}D_4O$	Neat	25 mg
NEW	DLM-4766-1.2	**2-Methylisoborneol (2-methyl-D_3,98%)**	$C_{11}H_{17}D_3O$	100 µg/mL in Nonane	1.2 mL
	CDLM-7279-S	***N*-Nitrosodimethylamine ($^{13}C_2$,99%;D_6,98%)**	$*C_2D_6N_2O$	1 mg/mL in Methylene chloride-D_2	1 mL
	OLM-7310-1.2	**Perchloric acid, sodium salt ($^{18}O_4$,90%+)**	$NaCl*O_4$	100 µg/mL in Water	1.2 mL
NEW	ULM-7312-1.2	**Perchloric acid, sodium salt (unlabeled)**	$NaClO_4$	100 µg/ml in Water	1.2 mL
NEW	CLM-3733-1.2	***o*-Phenylphenol (phenyl-$^{13}C_6$,99%)**	$*C_6H_5C_6H_4OH$	100 µg/ml in Nonane	1.2 mL
NEW	ULM-7396-1.2	***o*-Phenylphenol (unlabeled)**	$C_6H_5C_6H_4OH$	100 µg/ml in Nonane	1.2 mL
	CLM-3748-1.2	***p*-Phenylphenol ($^{13}C_6$,99%)** (CP: 96%)	$*C_6H_5C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
NEW	OLM-8283-1.2	**Potassium bromate ($^{18}O_3$,98%)** (CP: 90-95%)	$KBr*O_3$	100 µg/mL in Water	1.2 mL
NEW	ULM-8451-1.2	**Potassium bromate (unlabeled)**	$KBrO_3$	100 µg/mL in Water	1.2 mL
	CNLM-7221-1.2	**Semicarbazide hydrochloride (SEM) (^{13}C,99%;$^{15}N_2$,98%)**	$*CH_5*N_2NO{\cdot}HCl$	100 µg/mL in Methanol	1.2 mL
	ULM-7187-1.2	**Semicarbazide hydrochloride (SEM) (unlabeled)**	$CH_5N_3O{\cdot}$ HCl	100 µg/mL in Methanol	1.2 mL
NEW	DLM-6083-1.2	**2,4,6-Trichloroanisole (D_5,98%)**	$C_6D_2Cl_3OCD_3$	1 mg/mL in Methanol-D	1.2 mL
NEW	ULM-7999-1.2	**2,4,6-Trichloroanisole (unlabeled)**	$C_6H_2Cl_3OCH_3$	1 mg/mL in Methanol	1.2 mL
	CLM-6779-1.2	**2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) ($^{13}C_{12}$,99%)**	$*C_{12}H_7Cl_3O_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6935-1.2	**2',4,4'-Trichloro-2-hydroxydiphenyl ether (Triclosan) (unlabeled)**	$C_{12}H_7Cl_3O_2$	100 µg/mL in Nonane	1.2 mL
	DLM-2080-1.2	**1,2,3-Trichloropropane (D_5,98%)** (CP: 95%)	$CD_2ClCDClCD_2Cl$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-6911-1.2	**1,2,3-Trichloropropane (unlabeled)**	$CH_2ClCHClCH_2Cl$	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	**Benzyl butyl phthalate (ring-D_4,98%)**	$C_6D_4[CO_2(CH_2)_3CH_3][CH_2C_6H_5]$	100 µg/mL in Nonane	1.2 mL
	CLM-4675-1.2	**Bis(2-ethylhexyl) adipate (adipate-$^{13}C_6$,99%)**	$(*CH_2)_4[*CO_2[CH_2CH(C_2H_5)C_4H_9]]_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6566-1.2	**Bis(2-ethylhexyl) adipate (unlabeled)**	$(CH_2)_4[CO_2[CH_2CH(C_2H_5)C_4H_9]]_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1368-1.2	**Bis(2-ethylhexyl) phthalate (ring-D_4,98%)**	$C_6D_4[CO_2CH_2CH(C_2H_5)C_4H_9]_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-6241-1.2	**Bis(2-ethylhexyl) phthalate (unlabeled)**	$C_6H_4[CO_2CH_2CH(CH_2CH_3(CH_2)_3CH_3]_2$	1000 µg/mL in Nonane	1.2 mL
	DLM-1367-1.2	**Di-*n*-butyl phthalate (ring-D_4,98%)**	$C_6D_4[CO_2(CH_2)_3CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4670-1.2	**Dicyclohexyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4(*CO_2C_6H_{11})_2$	100 µg/mL in Nonane	1.2 mL
	ULM-8785-1.2	**Dicyclohexyl phthalate (unlabeled)**	$C_6H_4(CO_2C_6H_{11})_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1629-1.2	**Diethyl phthalate (ring-D_4,98%)**	$C_6D_4(CO_2CH_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6174-1.2	**Diethyl phthalate (unlabeled)**	$C_6H_4(CO_2CH_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4669-1.2	**Di-*n*-hexyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_5CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	ULM-7434-1.2	**Di-*n*-hexyl phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_5CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1366-1.2	**Dimethyl phthalate (ring-D_4,98%)**	$C_6D_4(CO_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1630-1.2	**Di-*n*-octyl phthalate (ring-D_4,98%)**	$C_6D_4[CO_2(CH_2)_7CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6129-1.2	**Di-*n*-octyl phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_7CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4668-1.2	**Di-*n*-pentyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_4CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	ULM-7433-1.2	**Di-*n*-pentyl phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_4CH_3]_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4591-1.2	**Monobenzyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2CH_2C_6H_5][*CO_2H]$	100 µg/mL in MTBE	1.2 mL
	ULM-6149-1.2	**Monobenzyl phthalate (unlabeled)**	$C_6H_4[CO_2CH_2C_6H_5][CO_2H]$	100 µg/mL in MTBE	1.2 mL
	CLM-4590-1.2	**Mono-*n*-butyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_3CH_3][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-6148-1.2	**Mono-*n*-butyl phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_3CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8148-1.2	**Mono-(5-carboxy-2-ethylpentyl) phthalate (DEHP Metabolite V) ($^{13}C_4$,99%)**	$*C_2C_4H_4[*CO_2CH_2(CH_2CH_3)(CH_2)_3[*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8149-1.2	**Mono-(5-carboxy-2-ethylpentyl) phthalate (DEHP Metabolite V) (unlabeled)**	$C_6H_4[CO_2CH_2(CH_2CH_3)(CH_2)_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8232	**Mono-[(2-carboxymethyl) hexyl] phthalate (DEHP Metabolite IV) ($^{13}C_4$,99%)**	$*C_2C_4H_4[*CO_2CH_2(CH2)_5CH_3CO_2[*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8233-1.2	**Mono-[(2-carboxymethyl) hexyl] phthalate (DEHP Metabolite IV) (unlabeled)**	$C_6H_4[CO_2CH_2(CH2)_5CH_3CO_2][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL

Phthalate and Phthalate Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-6847-1.2	**Mono-(3-carboxypropyl) phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_3CO_2H][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-6848-1.2	**Mono-(3-carboxypropyl) phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_3CO_2H][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-4592-1.2	**Monocyclohexyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2C_6H_{11}][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7394-1.2	**Monocyclohexyl phthalate (unlabeled)**	$C_6H_4[CO_2C_6H_{11}][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4584-1.2	**Mono-2-ethylhexyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[CO_2CH_2CH(CH_2CH_3)(CH_2)_3CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-4583-1.2	**Mono-2-ethylhexyl phthalate (unlabeled)**	$C_6H_4[CO_2CH_2CH(CH_2CH_3)(CH_2)_3CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-6641-1.2	**Mono-(2-ethyl-5-hydroxyhexyl) phthalate (DEHP Metabolite IX) (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2CH_2CH(CH_2CH_3)CH_2CH_2CH(OH)CH_3][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-4662-1.2	**Mono-(2-ethyl-5-hydroxyhexyl) phthalate (DEHP Metabolite IX) (unlabeled)**	$C_2C_4H_4[CO_2CH_2CH(CH_2CH_3)CH_2CH_2CH(OH)CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-6640-1.2	**Mono-(2-ethyl-5-oxohexyl) phthalate (DEHP Metabolite VI) ($^{13}C_4$,99%)**	$*C_2C_4H_4[*CO_2CH_2CH(CH_2CH_3)CH_2CH_2COCH_3][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-4663-1.2	**Mono-(2-ethyl-5-oxohexyl) phthalate (DEHP Metabolite VI) (unlabeled)**	$C_2C_4H_4[CO_2CH_2CH(CH_2CH_3)CH_2CH_2COCH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4586-1.2	**Monoethyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2CH_2CH_3][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-4585-1.2	**Monoethyl phthalate (unlabeled)**	$C_6H_4[CO_2CH_2CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7919-1.2	**Monoisobutyl phthalate (unlabeled)**	$C_6H_4[CO_2CH_2CH(CH_3)_2][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-4652-1.2	**Monoisodecyl phthalate (Mono-3,7-dimethyloctyl phthalate) (unlabeled)**	$C_6H_4[CO_2(CH_2)_2CH(CH_3(CH_2)_3CH(CH_3)_2][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4587-1.2	**Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_6CH(CH_3)_2][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-4651-1.2	**Monoisononyl phthalate (Mono-3,5,5-trimethylhexyl phthalate) (unlabeled)**	$C_6H_4[CO_2(CH_2)_6CH(CH_3)_2][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7395-1.2	**Monoisopropyl phthalate (unlabeled)**	$C_6H_4[CO_2CH(CH_3)_2][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-6071-1.2	**Monomethyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2CH_3][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-6697-1.2	**Monomethyl phthalate (unlabeled)**	$C_6H_4[CO_2CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4589-1.2	**Mono-*n*-octyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_7CH_3][*CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-4593-1.2	**Mono-*n*-octyl phthalate (unlabeled)**	$C_2C_4H_4[CO_2(CH_2)_7CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7393-1.2	**Mono-*n*-pentyl phthalate (unlabeled)**	$C_2C_4H_4[CO_2(CH_2)_4CH_3][CO_2H]$	100 µg/mL in Acetonitrile	1.2 mL

Nonylphenol, Nonylphenol Ethoxylate and Nonylphenol Carboxylate Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-8356-1.2	**4-(1,3-Dimethyl-1-ethylpentyl) phenol (ring-$^{13}C_6$,99%)**	$(CH_3CH_2CH)(CH_3)CH_2(CH_3)(CH_2CH_3)C^*C_6H_4OH$	Inquire	1.2 mL
NEW	ULM-8360-1.2	**4-(1,3-Dimethyl-1-ethylpentyl) phenol (unlabeled)**	$(CH_3CH_2CH)(CH_3)CH_2(CH_3)(CH_2CH_3)CC_6H_4OH$	Inquire	1.2 mL
NEW	CLM-8357-1.2	**4-(1,4-Dimethyl-1-ethylpentyl) phenol (ring-$^{13}C_6$,99%)**	$(CH_3)_2C(CH_2)_2(CH_3)(CH_2CH_3)C^*C_6H_4OH$	Inquire	1.2 mL
NEW	ULM-8361-1.2	**4-(1,4-Dimethyl-1-ethylpentyl) phenol (unlabeled)**	$(CH_3)_2C(CH_2)_2(CH_3)(CH_2CH_3)CC_6H_4OH$	Inquire	1.2 mL
NEW	CLM-8359-1.2	**4-(1-Ethyl-1-methylhexyl) phenol (ring-$^{13}C_6$,99%)**	$[(CH_3)(CH_2)_4](CH_3)(CH_2CH_3)C^*C_6H_4OH$	Inquire	1.2 mL
NEW	ULM-8363-1.2	**4-(1-Ethyl-1-methylhexyl) phenol (unlabeled)**	$[(CH_3)(CH_2)_4](CH_3)(CH_2CH_3)CC_6H_4OH$	Inquire	1.2 mL
	CLM-4306-1.2	***p-n*-Nonylphenol (ring-$^{13}C_6$,99%)**	$CH_3(CH_2)_8{}^*C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	ULM-4559-1.2	***p-n*-Nonylphenol (unlabeled)**	$CH_3(CH_2)_8C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	CLM-4307-1.2	***p-n*-Nonylphenol diethoxylate (ring-$^{13}C_6$,99%)**	$CH_3(CH_2)_8{}^*C_6H_4O(CH_2)_2O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	ULM-4521-1.2	***p-n*-Nonylphenol diethoxylate (unlabeled)**	$CH_3(CH_2)_8C_6H_4O(CH_2)_2O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-4521-SA-5X-1.2	***p-n*-Nonylphenol diethoxylate (unlabeled)**	$CH_3(CH_2)_8C_6H_4O(CH_2)_2O(CH_2)_2OH$	500 µg/mL in Acetonitrile	1.2 mL
	CLM-4512-1.2	***p-n*-Nonylphenol monoethoxylate (ring-$^{13}C_6$,99%)**	$CH_3(CH_2)_8{}^*C_6H_4O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	ULM-4520-1.2	***p-n*-Nonylphenol monoethoxylate (unlabeled)**	$CH_3(CH_2)_8C_6H_4O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-4520-SA-5X-1.2	***p-n*-Nonylphenol monoethoxylate (unlabeled)**	$CH_3(CH_2)_8C_6H_4O(CH_2)_2OH$	500 µg/mL in Acetonitrile	1.2 mL
	CLM-4516-1.2	***p-n*-Nonylphenol triethoxylate (ring-$^{13}C_6$,99%)**	$CH_3(CH_2)_8{}^*C_6H_4O(CH_2)_2O(CH_2)_2O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	ES-4157	***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**			Set of 4 x 1.2 mL
	ULM-6560-1.2	***p*-Nonylphenol-Technical Grade (unlabeled)**	$C_9H_{19}C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	ULM-7146-1.2	**Nonylphenol monoethoxylate – branched isomers (unlabeled)**	$C_9H_{19}C_6H_4O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	ULM-7147-1.2	**Nonylphenol diethoxylate – branched isomers (unlabeled)**	$C_9H_{19}C_6H_4(OCH_2CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	ULM-4688-1.2	**Nonylphenoxyacetic acid – ring/chain isomers (unlabeled)**	$C_9H_{19}C_6H_4OCH_2CO_2H$	100 µg/mL in Nonane	1.2 mL
	ULM-4690-1.2	***p-n*-Nonylphenoxyethoxyacetic acid (unlabeled)**	$CH_3(CH_2)_8C_6H_4O(CH_2)_2OCH_2CO_2H$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8358-1.2	**4-(1,1,5-Trimethylhexyl) phenol (ring-$^{13}C_6$,99%)**	$(CH_3)_2C(CH_2)_3(CH_3)_2(CH_2CH_3)C^*C_6H_4OH$	Inquire	1.2 mL
NEW	ULM-8362-1.2	**4-(1,1,5-Trimethylhexyl) phenol (unlabeled)**	$(CH_3)_2C(CH_2)_3(CH_3)_2(CH_2CH_3)CC_6H_4OH$	Inquire	1.2 mL

Perfluorinated Compound Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-8340-1.2	**Perfluorohexanoic Acid (PFHxA), sodium salt ($^{13}C_6$,99%)**	$*CF_3(*CF_2)_4*CO_2Na$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8342-1.2	**Perfluorohexanoic Acid (PFHxA), sodium salt (unlabeled)**	$CF_3(CF_2)_4CO_2Na$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-8005-1.2	**Perfluorooctanoic Acid (PFOA) ($^{13}C_8$,99%)**	$*CF_3(*CF_2)_6*CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-7451-1.2	**Perfluorooctanoic Acid (PFOA) (unlabeled)**	$CF_3(CF_2)_6CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-8060-1.2	**Perfluorononanoic Acid (PFNA) ($^{13}C_9$,99%)**	$*CF_3(*CF_2)_7*CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8066-1.2	**Perfluorononanoic Acid (PFNA) (unlabeled)**	$CF_3(CF_2)_7CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-8172-1.2	**Perfluorodecanoic Acid (PFDA) ($^{13}C_9$,99%)**	$CF_3(*CF_2)_8*CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8067-1.2	**Perfluorodecanoic Acid (PFDA) (unlabeled)**	$CF_3(CF_2)_8CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-8240-1.2	**Perfluoroundecanoic Acid (PFUA) ($^{13}C_9$,99%)**	$*CF_3(*CF_2)_8CF_2CO_2H$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8084-1.2	**Perfluoroundecanoic Acid (PFUA), sodium salt (unlabeled)**	$CF_3(CF_2)_9CO_2Na$	50 µg/mL in Methanol	1.2 mL

Nitrosamine Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	DLM-7779-S	***N*-Nitrodimethylamine (dimethyl-D_6,98%)**	$C_2D_6N_2O_2$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	ULM-7780-S	***N*-Nitrodimethylamine (unlabeled)**	$C_2H_6N_2O_2$	1 mg/mL in Methylene chloride	1 mL
	ULM-7168-1.2	**Nitrosoanabasine (NAB) (unlabeled)**	$C_{10}H_{13}N_3O$	0.5 mg/mL in Acetonitrile	1.2 mL
	ULM-7207-1.2	**Nitrosoanatabine (NAT) (unlabeled)**	$C_{10}H_{11}N_3O$	2 mg/mL in Acetonitrile	1.2 mL
NEW	DLM-7982-S	***N*-Nitrosodiethylamine (D_{10},98%)**	$(C_2D_5)_2NNO$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	ULM-7984-1.2	***N*-Nitrosodiethylamine (unlabeled)**	$(C_2H_5)_2NNO$	1 mg/mL in Methylene chloride	1.2 mL
	CDLM-7279-S	***N*-Nitrosodimethylamine ($^{13}C_2$,99%;D_6,98%)**	$*C_2D_6N_2O$	1 mg/mL in Methylene chloride-D_2	1 mL
	DLM-2130-S	***N*-Nitrosodimethylamine (2,2′,4,4′,6,6′-D_6,98%)**	$C_2D_6N_2O$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	NLM-7647-S	***N*-Nitrosodimethylamine ($^{15}N_2$,98%)**	$(C_2H_5)_2*N*NO$	1 mg/mL in Methylene chloride	1 mL
	DLM-3098-S	***N*-Nitrosodiphenylamine (2,2′,4,4′,6,6′-D_6,98%)**	$(C_6D_3H_2)_2NN=O$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	ULM-7219-1.2	***N*-Nitrosodiphenylamine (unlabeled)**	$C_{12}H_{10}N_2O$	1 mg/mL in Methylene chloride	1.2 mL
	DLM-2131-S	***N*-Nitrosodi-*n*-propylamine (D_{14},98%)**	$C_6D_{14}N_2O$	1 mg/mL in Methylene chloride	1 mL
	ULM-6637-S	***N*-Nitrosodi-*n*-propylamine (unlabeled)**	$C_6H_4N_2O$	1 mg/mL in Methylene chloride	1 mL
NEW	DLM-8254-1.2	***N*-Nitrosomorpholine (D_8,98%)**	$CD_8N_2O_2$	1 mg/mL in Methylene chloride-D_2	1.2 mL
NEW	ULM-8255-1.2	***N*-Nitrosomorpholine (unlabeled)** (CP: 96%)	$CH_8N_2O_2$	1 mg/mL in Methylene chloride	1.2 mL
NEW	DLM-8252-1.2	***N*-Nitrosopyrrolidine (D_8,98%)**	$C_4D_8N_2O$	1 mg/mL in Methylene chloride-D_2	1.2 mL
NEW	ULM-8253-1.2	***N*-Nitrosopyrrolidine (unlabeled)**	$C_4H_8N_2O$	1 mg/mL in Methylene chloride	1.2 mL
	CLM-4555-1.2	**NNK (Nicotine-derived Nitrosamine Ketone) (1,2′,3′,4′,5′,6′-$^{13}C_6$,99%)**	$*C_6C_4H_{13}N_3O_2$	100 µg/mL in Nonane/Ethanol (9:1)	1.2 mL
	CLM-4557-1.2	**NNN (*N*-NitrosoNorNicotine) (2,2′,3,4,5,6-$^{13}C_6$,99%)**	$*C_6C_3H_{11}N_3O$	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	**4-Methylumbelliferone (2,3,4,methyl-$^{13}C_4$,99%)**	$*C_4C_6H_8O_3$	100 µg/mL in Acetonitrile	1.2 mL
ULM-7309-1.2	**4-Methylumbelliferone (unlabeled)**	$C_{10}H_8O_3$	100 µg/mL in Acetonitrile	1.2 mL
ULM-7168-1.2	**Nitrosoanabasine (NAB) (unlabeled)**	$C_{10}H_{13}N_3O$	0.5 mg/mL in Acetonitrile	1.2 mL
ULM-7207-1.2	**Nitrosoanatabine (NAT) (unlabeled)**	$C_{10}H_{11}N_3O$	2 mg/mL in Acetonitrile	1.2 mL
CLM-4555-1.2	**NNK (Nicotine-derived Nitrosamine Ketone) (1,2′,3′,4′,5′,6′-$^{13}C_6$,99%)**	$*C_6C_4H_{13}N_3O_2$	100 µg/mL in Nonane/Ethanol (9:1)	1.2 mL
CLM-4557-1.2	**NNN (*N*-Nitrosonornicotine) (2,2′,3,4,5,6-$^{13}C_6$,99%)**	$*C_6C_3H_{11}N_3O$	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	**4-Bromophenol ($^{13}C_6$,99%)**	*C_6H_4BrOH	100 µg/mL in Toluene	1.2 mL
	ULM-6917-1.2	**4-Bromophenol (unlabeled)**	C_6H_4BrOH	100 µg/mL in Toluene	1.2 mL
	CLM-1913-1.2	**4-Chlorophenol ($^{13}C_6$,99%)**	*C_6H_4ClOH	100 µg/mL in Toluene	1.2 mL
NEW	ULM-7420-1.2	**4-Chlorophenol (unlabeled)**	C_6H_4ClOH	100 µg/mL in Nonane	1.2 mL
	CLM-6058-1.2	**2,4-Dibromophenol ($^{13}C_6$,99%)**	*$C_6H_3Br_2OH$	100 µg/mL in Toluene	1.2 mL
	ULM-6918-1.2	**2,4-Dibromophenol (unlabeled)**	$C_6H_3Br_2OH$	100 µg/mL in Toluene	1.2 mL
NEW	CLM-8007-1.2	**2,6-Dibromophenol ($^{13}C_6$,99%)**	*$C_6H_3Br_2OH$	100 µg/mL in Toluene	1.2 mL
NEW	ULM-7603-1.2	**2,6-Dibromophenol (unlabeled)**	$C_6H_3Br_2OH$	100 µg/mL in Toluene	1.2 mL
	CLM-126-1.2	**1,2-Dichlorobenzene ($^{13}C_6$,99%)**	*$C_6H_4Cl_2$	100 µg/mL in Isooctane	1.2 mL
	CLM-4484-1.2	**1,3-Dichlorobenzene ($^{13}C_6$,99%)**	*$C_6H_4Cl_2$	100 µg/mL in Isooctane	1.2 mL
NEW	DLM-1359-0.5	**2,4-Dichlorophenol (ring-D_3,98%)**	$C_6D_3Cl_2OH$	Neat	0.5 g
	ULM-6822-1.2	**2,4-Dichlorophenol (unlabeled)**	$C_6H_3Cl_2OH$	100 µg/mL in Nonane	1.2 mL
	CLM-1365-1.2	**2,5-Dichlorophenol ($^{13}C_6$,99%)**	*$C_6H_3Cl_2OH$	100 µg/mL in Methanol	1.2 mL
NEW	CLM-1921-1.2	**Hexabromobenzene ($^{13}C_6$,99%)**	*C_6Br_6	100 µg/mL in Toluene	1.2 mL
NEW	ULM-7607-1.2	**Hexabromobenzene (unlabeled)**	C_6Br_6	100 µg/mL in Toluene	1.2 mL
	CLM-1959-1.2	**Pentabromophenol ($^{13}C_6$,99%)**	*C_6Br_5OH	100 µg/mL in Toluene	1.2 mL
	ULM-6922-1.2	**Pentabromophenol (unlabeled)**	C_6Br_5OH	100 µg/mL in Toluene	1.2 mL
NEW	CLM-8003-1.2	**Pentachloroanisole ($^{13}C_6$,99%)**	*$C_6CH_3Cl_5O$	100 µg/mL in Toluene	1.2 mL
NEW	ULM-7605-1.2	**Pentachloroanisole (unlabeled)**	$C_6CH_3Cl_5O$	100 µg/mL in Toluene	1.2 mL
	CLM-2050-1.2	**Pentachlorobenzene ($^{13}C_6$,99%)**	*C_6HCl_5	100 µg/mL in Isooctane	1.2 mL
	ULM-7234-1.2	**Pentachlorobenzene (unlabeled)**	C_6HCl_5	100 µg/mL in Isooctane	1.2 mL
	CLM-1955-1.2	**Pentachloronitrobenzene ($^{13}C_6$,99%)**	*$C_6Cl_5NO_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7597-1.2	**Pentachloronitrobenzene (unlabeled)**	$C_6Cl_5NO_2$	100 µg/mL in Nonane	1.2 mL
	CLM-661-1.2	**Pentachlorophenol ($^{13}C_6$,99%)**	*C_6Cl_5OH	100 µg/mL in Nonane	1.2 mL
	ULM-6894-1.2	**Pentachlorophenol (unlabeled)**	C_6Cl_5OH	100 µg/mL in Nonane	1.2 mL
	CLM-1996-1.2	**2,3,4,5-Tetrabromophenol ($^{13}C_6$,99%)**	*C_6HBr_4OH	100 µg/mL in Toluene	1.2 mL
	ULM-6778-1.2	**2,3,4,5-Tetrabromophenol (unlabeled)**	C_6HBr_4OH	100 µg/mL in Toluene	1.2 mL
	CLM-1982-1.2	**1,2,3,4-Tetrachlorobenzene ($^{13}C_6$,99%)**	*$C_6H_2Cl_4$	100 µg/mL in Isooctane	1.2 mL
	ULM-6195-1.2	**1,2,3,4-Tetrachlorobenzene (unlabeled)**	$C_6H_2Cl_4$	100 µg/mL in Isooctane	1.2 mL
NEW	ULM-7599-1.2	**1,2,3,5-Tetrachlorobenzene (unlabeled)**	$C_6H_2Cl_4$	100 µg/mL in Isooctane	1.2 mL
NEW	ULM-7598-1.2	**1,2,4,5-Tetrachlorobenzene (unlabeled)**	$C_6H_2Cl_4$	100 µg/mL in Isooctane	1.2 mL
NEW	CLM-7488	**2,3,4-Tribromophenol ($^{13}C_6$,99%)**	*$C_6H_2Br_3OH$		Inquire
	CLM-6151-1.2	**2,4,5-Tribromophenol ($^{13}C_6$,99%)**	*$C_6H_2Br_3OH$	100 µg/mL in Toluene	1.2 mL
	ULM-6084-1.2	**2,4,5-Tribromophenol (unlabeled)**	$C_6H_2Br_3OH$	100 µg/mL in Toluene	1.2 mL
NEW	CLM-6743-1.2	**2,4,6-Tribromophenol ($^{13}C_6$,99%)**	*$C_6H_2Br_3OH$	100 µg/mL in Toluene	1.2 mL
NEW	DLM-7506	**2,4,6-Tribromophenol (3,5-D_2,98%)**	$C_6D_2HBr_3O$		Inquire
NEW	ULM-4210-1.2	**2,4,6-Tribromophenol (unlabeled)**	$C_6H_2Br_3OH$	100 µg/mL in Toluene	1.2 mL
	CLM-1836-1.2	**3,4,5-Tribromophenol ($^{13}C_6$,98%)**	*$C_6H_2Br_3OH$	100 µg/mL in Toluene	1.2 mL
NEW	CLM-513-SI-1.2	**2,4,5-Trichlorophenol ($^{13}C_6$,99%)**	*$C_6H_2Cl_3OH$	100 µg/mL in Isooctane	1.2 mL
NEW	ULM-7525-1.2	**2,4,5-Trichlorophenol (unlabeled)**	$C_6H_2Cl_3OH$	100 µg/mL in Methanol	1.2 mL
NEW	CLM-1804-SI-1.2	**2,4,6-Trichlorophenol ($^{13}C_6$,99%)**	*$C_6H_2Cl_3OH$	100 µg/mL in Isooctane	1.2 mL
NEW	ULM-7600-1.2	**2,4,6-Trichlorophenol (unlabeled)**	$C_6H_2Cl_3OH$	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	**Acenaphthene ($^{13}C_6$,99%)**	$*C_6C_6H_{10}$	100 µg/mL in Nonane	1.2 mL
DLM-108-1.2	**Acenaphthene (D_{10},98%)**	$C_{12}D_{10}$	200 µg/mL in Isooctane	1.2 mL
ULM-7413-1.2	**Acenaphthene (unlabeled)**	$C_{12}H_{10}$	200 µg/mL in Isooctane	1.2 mL
CLM-3727-1.2	**Alachlor (ring-$^{13}C_6$,99%)** (CP: 96%+)	$*C_6C_8H_{20}ClNO_2$	100 µg/mL in Nonane	1.2 mL
CLM-4725-1.2	**Aldrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
CLM-1333-1.2	**Anthracene ($^{13}C_6$,99%)**	$*C_6C_8H_{10}$	100 µg/mL in Nonane	1.2 mL
DLM-102-1.2	**Anthracene (D_{10},98%)**	$C_{14}D_{10}$	200 µg/mL in Isooctane	1.2 mL
ULM-7412-1.2	**Anthracene (unlabeled)**	$C_{14}H_{10}$	200 µg/mL in Isooctane	1.2 mL
CLM-3737-1.2	**Atrazine (ring-$^{13}C_3$,99%)**	$*C_3C_5H_{14}ClN_5$	100 µg/mL in Nonane	1.2 mL
CLM-3602-1.2	**Benz[*a*]anthracene ($^{13}C_6$,99%)**	$*C_6C_{12}H_{12}$	100 µg/mL in Nonane	1.2 mL
DLM-610-1.2	**Benz[*a*]anthracene (D_{12},98%)**	$C_{18}D_{12}$	200 µg/mL in Isooctane	1.2 mL
ULM-2415-1.2	**Benz[*a*]anthracene (unlabeled)**	$C_{18}H_{12}$	1mg/mL in Methanol	1.2 mL
CLM-2722-1.2	**Benzo[*a*]pyrene ($^{13}C_4$,99%)**	$*C_4C_{16}H_{12}$	100 µg/mL in Nonane	1.2 mL
DLM-258-1.2	**Benzo[*a*]pyrene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Isooctane	1.2 mL
ULM-8717-1.2	**Benzo[*a*]pyrene (unlabeled)**	$C_{20}H_{12}$	200 µg/mL in Isooctane	1.2 mL
CLM-3599-1.2	**Benzo[*b*]fluoranthene ($^{13}C_6$,99%)**	$*C_6C_{14}H_1$	100 µg/mL in Nonane	1.2 mL
DLM-2136-1.2	**Benzo[*b*]fluoranthene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Isooctane	1.2 mL
ULM-2416-1.2	**Benzo[*b*]fluoranthene (unlabeled)**	$C_{20}H_{12}$	1 mg/mL in Acetone	1.2 mL
CLM-3756-1.2	**Benzo[*k*]fluoranthene ($^{13}C_6$,99%)**	$*C_6C_{14}H_1$	100 µg/mL in Nonane	1.2 mL
DLM-1923-1.2	**Benzo[*k*]fluoranthene (D_{12},98%)**	$C_{20}D_{12}$	200 µg/mL in Isooctane	1.2 mL
DLM-1369-1.2	**Benzyl butyl phthalate (ring-D_4,98%)**	$C_6D_4[CO_2(CH_2)_3CH_3][CH_2C_6H_5]$	100 µg/mL in Nonane	1.2 mL
CLM-2482-1.2	**α-BHC (α-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
CLM-3623-1.2	**β-BHC (β-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	50 µg/mL in Nonane	2 x 1.2 mL
CLM-1282-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
CLM-4675-1.2	**Bis(2-ethylhexyl) adipate (adipate-$^{13}C_6$,99%)**	$(*CH_2)_4[*CO_2[CH_2CH(C_2H_5)C_4H_9]]$	100 µg/mL in Nonane	1.2 mL
DLM-1368-1.2	**Bis(2-ethylhexyl) phthalate (ring-D_4,98%)**	C_6D_4-1,2-$[CO_2C_8H_{17}]_2$	100 µg/mL in Nonane	1.2 mL
NEW ULM-6241-1.2	**Bis(2-ethylhexyl) phthalate (unlabeled)**	$C_6H_4[CO_2CH_2CH(CH_2CH_3)(CH_2)_3CH_3]_2$	1000 µg/mL in Nonane	1.2 mL
CLM-4325-1.2	**Bisphenol A (ring-$^{13}C_{12}$,99%)**	$(*C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
ULM-7106-1.2	**Bisphenol A (unlabeled)**	$(C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW ULM-8654-1.2	**2,4′-Bisphenol A (unlabeled)**	$(C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4674-1.2	***n*-Butylbenzene (ring-$^{13}C_6$,99%)**	$*C_6H_5C_4H_9$	100 µg/mL in Nonane	1.2 mL
CLM-4682-1.2	**Carbaryl (ring-$^{13}C_6$,99%)**	$*C_6C_6H_{11}NO_2$	100 µg/mL in Nonane	1.2 mL
ULM-8096-1.2	**Carbaryl (unlabeled)**	$C_{10}H_7CO_2NHCH_3$	100 µg/mL in Nonane	1.2 mL
CLM-4792-1.2	***trans*-Chlordane (γ-Chlordane) ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_8$	100 µg/mL in Nonane	1.2 mL
CLM-4814-1.2	**Chlordecone (Kepone) ($^{13}C_{10}$,99%)**	$*C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
ULM-2301-1.2	**Chlordecone (Kepone) (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
CLM-4758-1.2	**Chlordene ($^{13}C_{10}$,99%)**	$*C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
ULM-7443-1.2	**Chlordene (unlabeled)**	$C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
DLM-4360-1.2	**Chlorpyrifos (diethyl-D_{10},99%)**	$C_9D_{10}H_1Cl_3NO_3PS$	100 µg/mL in Nonane	1.2 mL
CLM-3757-1.2	**Chrysene ($^{13}C_6$,99%)**	$*C_6C_{12}H_{12}$	100 µg/mL in Nonane	1.2 mL
DLM-261-1.2	**Chrysene (D_{12},98%)**	$C_{18}D_{12}$	200 µg/mL in Toluene-D_8	1.2 mL
ULM-7424-1.2	**Chrysene (unlabeled)**	$C_{18}H_{12}$	200 µg/mL in Toluene	1.2 mL
DLM-4461-1.2	**Daidzein (3′,5′,8-D_3,97%)**	$C_{15}D_3H_7O_4$	60 µg/mL in Acetonitrile-D_8	2 x 1.2 mL
ULM-4459-1.2	**Daidzein (unlabeled)**	$C_{15}H_{10}O_4$	60 µg/mL in Acetonitrile	1.2 mL
CLM-6999-1.2	**2,4′-DDD (ring-$^{13}C_{12}$,99%)**	$*C_{12}C_2H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL
DLM-3533-1.2	**4,4′-DDD (ring-D_8,98%)**	$C_{14}D_8H_4Cl_4$	100 µg/mL in Nonane	1.2 mL
CLM-4693-1.2	**2,4′-DDE (ring-$^{13}C_{12}$,99%)**	$(Cl*C_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
ULM-6251-1.2	**2,4′-DDE (unlabeled)**	$(ClC_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
CLM-1627-1.2	**4,4′-DDE (ring-$^{13}C_{12}$,99%)**	$(Cl*C_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
CLM-4692-1.2	**2,4′-DDT (ring-$^{13}C_{12}$,99%)**	$(Cl*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
ULM-6134-1.2	**2,4′-DDT (unlabeled)**	$(ClC_6H_4)CHCCl_3$	100 µg/mL in Nonane	1.2 mL
CLM-1281-1.2	**4,4′-DDT (ring-$^{13}C_{12}$,99%)**	$(Cl*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
ULM-6135-1.2	**4,4′-DDT (unlabeled)**	$(ClC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL

Endocrine Disrupting Compounds and Xenoestrogen Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-1148-1.2	**Diazinon (diethyl-D_{10},98%)**	$C_{12}D_{10}H_{11}N_2O_3PS$	100 µg/mL in Nonane	1.2 mL
DLM-2943-1.2	**2,6-Di(*tert*-butyl)-4-methylphenol (BHT) (D_{21},98%)**	$C_6H_2(C(CD_3)_3)_2CH_3OH$	100 µg/mL in Nonane	1.2 mL
DLM-1367-1.2	**Di-*n*-butyl phthalate (ring-D_4,98%)**	$C_6D_4(CO_2CH_2CH_2CH_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
DLM-1669-0.1	**2,4-Dichlorophenol (ring-D_3, OD,98%)**	$C_6D_3Cl_2OD$	Neat	0.1 g
CLM-1858-1.2	**2,4-Dichlorophenoxyacetic acid (ring-$^{13}C_6$,99%)**	$Cl_2{*}C_6H_3OCH_2CO_2H$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4726-1.2	**Dieldrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
ULM-7230-1.2	**Dieldrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
DLM-1629-1.2	**Diethyl phthalate (ring-D_4,98%)**	$*C_6D_4(CO_2CH_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
	Diethyl phthalate (unlabeled)	$C_6H_4(CO_2CH_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
CLM-4669-1.2	**Di-*n*-hexyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_4C_4H_4(*CO_2(CH_2)_5CH_3)_2$	100 µg/mL in Nonane	1.2 mL
ULM-7434-1.2	**Di-*n*-hexyl phthalate (unlabeled)**	$C_6H_4(CO_2(CH_2)_5CH_3)_2$	100 µg/mL in Nonane	1.2 mL
CLM-4668-1.2	**Di-*n*-pentyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_4CH_3]_2$	100 µg/mL in Nonane	1.2 mL
ULM-7433-1.2	**Di-*n*-pentyl phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_4CH_3]_2$	100 µg/mL in Nonane	1.2 mL
CLM-4671-1.2	**Di-*n*-propyl phthalate (ring-1,2-$^{13}C_2$, dicarboxyl-$^{13}C_2$,99%)**	$*C_2C_4H_4[*CO_2(CH_2)_2CH_3]_2$	100 µg/mL in Nonane	1.2 mL
ULM-7436-1.2	**Di-*n*-propyl phthalate (unlabeled)**	$C_{14}H_{18}O_4$	100 µg/mL in Nonane	1.2 mL
CLM-6025-1.2	**Endosulfan I ($^{13}C_9$,99%)**	$*C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
DLM-2862-1.2	**Endosulfan I (D_4,97%)**	$C_9D_4H_2Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
ULM-7447-1.2	**Endosulfan I (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
CLM-6026-1.2	**Endosulfan II ($^{13}C_9$,99%)**	$*C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
ULM-7448-1.2	**Endosulfan II (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
CLM-4782-1.2	**Endrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
ULM-7444-1.2	**Endrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
CLM-4815-50	**Endrin aldehyde ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6O$	Neat	50 µg
CLM-4816-50	**Endrin ketone ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6O$	Neat	50 µg
DLM-4460-1.2	**Genistein (3',5',6,8-D_4,95%)**	$C_{15}D_4H_5O_5$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4759-1.2	**Heptachlor ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
ULM-2424-1.2	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
CLM-4734-1.2	***cis*-Heptachlor epoxide ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
ULM-2425-1.2	**Heptachlor epoxide (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
CLM-351-1.2	**Hexachlorobenzene ($^{13}C_6$,99%)**	$*C_6Cl_6$	100 µg/mL in Nonane	1.2 mL
ULM-6130-1.2	**Hexachlorobenzene (unlabeled)**	C_6Cl_6	100 µg/mL in Nonane	1.2 mL
CLM-3600-1.2	**Indeno[1,2,3-*cd*]pyrene ($^{13}C_6$,99%)**	$*C_6C_{14}H_{12}$	100 µg/mL in Nonane	1.2 mL
DLM-2148-1.2	**Indeno[1,2,3-*cd*]pyrene (D_{12},98%)**	$C_{22}D_{12}$	200 µg/mL in Isooctane	1.2 mL
CLM-4727-1.2	**Isodrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
ULM-7442-1.2	**Isodrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
DLM-4476-1.2	**Malathion (D_{10},99%)**	$C_{10}D_{10}H_9O_6PS_2$	100 µg/mL in Nonane	1.2 mL
ULM-8122-1.2	**Malathion (unlabeled)**	$(CH_3O)_2P{=}SSCH(CO_2CH_2CH_3)CH_2CO_2CH_2CH_3$	100 µg/mL in Nonane	1.2 mL
CLM-4683-1.2	**Methoxychlor (ring-$^{13}C_{12}$,99%)**	$(H_3C{*}C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
ULM-7440-1.2	**Methoxychlor (unlabeled)**	$(H_3CC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
CLM-3712-1.2	**Metolachlor (ring-$^{13}C_6$,99%)**	$*C_6C_9H_{22}ClNO_2$	100 µg/mL in Nonane	1.2 mL
NEW ULM-7314-1.2	**Metolachor (unlabeled)**	$C_{15}H_{22}ClNO_2$	100 µg/mL in Nonane	1.2 mL
CLM-4813-1.2	**Mirex ($^{13}C_{10}$,99%)**	$*C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
ULM-2427-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
CLM-3913-S	**4-Nitrotoluene (ring-$^{13}C_6$,99%)**	$*C_6H_4CH_3NO_2$	1 mg/mL in Acetonitrile	1 mL
ULM-3891-1.2	**4-Nitrotoluene (unlabeled)**	$C_6H_4CH_3NO_2$	1 mg/mL in Acetonitrile	1.2 mL
CLM-4811-1.2	***cis*-Nonachlor ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
ULM-7445-1.2	***cis*-Nonachlor (unlabeled)**	$C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
CLM-4735-1.2	***trans*-Nonachlor ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
ULM-7229-1.2	***trans*-Nonachlor (unlabeled)**	$C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL

Endocrine Disrupting Compounds and Xenoestrogen Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-4306-1.2	***p-n*-Nonylphenol (ring-$^{13}C_6$,99%)**	$CH_3(CH_2)_8{*}C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	ULM-4559-1.2	***p-n*-Nonylphenol (unlabeled)**	$CH_3(CH_2)_8C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	CLM-4512-1.2	***p-n*-Nonylphenol monoethoxylate (ring-$^{13}C_6$,99%)**	$CH_3(CH_2)_8{*}C_6H_4O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	ULM-4520-1.2	***p-n*-Nonylphenol monoethoxylate (unlabeled)**	$CH_3(CH_2)_8C_6H_4O(CH_2)_2OH$	100 µg/mL in Nonane	1.2 mL
	CLM-4729-1.2	**Oxychlordane ($^{13}C_{10}$,99%)**	$*C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	DLM-2970-1.2	**Parathion (diethyl-D_{10},98%)**	$C_{10}D_{10}H_4NOPS$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8144-1.2	**Parathion (unlabeled)**	$NO_2(C_6H_4)OP(=S)(OC_2H_5)_2$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-7930-1.2	**Parlar 26 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{10}Cl_8$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7828-1.2	**Parlar 26 (unlabeled)**	$C_{10}H_{10}Cl_8$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8705-1.2	**Parlar 32 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8665-1.2	**Parlar 32 (unlabeled)**	$C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8719-1.2	**Parlar 39 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8767-1.2	**Parlar 39 (unlabeled)**	$C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-7931-1.2	**Parlar 50 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7829-1.2	**Parlar 50 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-7932-1.2	**Parlar 62 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7830-1.2	**Parlar 62 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8720-1.2	**Parlar 69 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8768-1.2	**Parlar 69 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8721-1.2	**Parlar 70 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8769-1.2	**Parlar 70 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
	EC-1404-3	**PCB-77 (3,3',4,4'-TetraCB) ($^{13}C_{12}$,99%)**	$(*C_6Cl_2H_3)_2$	40 µg/mL in Nonane	3 mL
	EC-1425-3	**PCB-126 (3,3',4,4',5-PentaCB) ($^{13}C_{12}$,99%)**	$*C_6Cl_3H_2{*}C_6Cl_2H_3$	40 µg/mL in Nonane	3 mL
	EC-1416-3	**PCB-169 (3,3',4,4',5,5'-HexaCB) ($^{13}C_{12}$,99%)**	$(*C_6Cl_3H_2)_2$	40 µg/mL in Nonane	3 mL
	CLM-2050-1.2	**Pentachlorobenzene ($^{13}C_6$,99%)**	$*C_6HCl_5$	100 µg/mL in Isooctane	1.2 mL
	ULM-7234-1.2	**Pentachlorobenzene (unlabeled)**	C_6HCl_5	100 µg/mL in Isooctane	1.2 mL
	CLM-1955-1.2	**Pentachloronitrobenzene ($^{13}C_6$,99%)**	$*C_6Cl_5NO_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7597-1.2	**Pentachloronitrobenzene (unlabeled)**	$C_6Cl_5NO_2$	100 µg/mL in Nonane	1.2 mL
	CLM-661-1.2	**Pentachlorophenol ($^{13}C_6$,99%)**	$*C_6Cl_5OH$	100 µg/mL in Nonane	1.2 mL
	ULM-6894-1.2	**Pentachlorophenol (unlabeled)**	C_6Cl_5OH	100 µg/mL in Nonane	1.2 mL
	CLM-7322-1.2	***cis*-Permethrin (phenoxy-$^{13}C_6$,99%)**	$*C_6C_{15}H_{20}Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8526-1.2	***cis*-Permethrin (unlabeled)**	$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
	CLM-7323-1.2	***trans*-Permethrin (phenoxy-$^{13}C_6$,99%)**	$*C_6C_{15}H_{20}Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
	ULM-8527-1.2	***trans*-Permethrin (unlabeled)**	$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
	CLM-2451-1.2	**Phenanthrene ($^{13}C_6$,99%)**	$*C_6C_8H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-371-1.2	**Phenanthrene (D_{10},98%)**	$C_{14}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	ULM-7427-1.2	**Phenanthrene (unlabeled)**	$C_{14}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	CLM-3739-1.2	**Simazine (ring-$^{13}C_3$,99%)**	$*C_3C_4H_{12}ClN_5$	100 µg/mL in Methanol	1.2 mL
	CLM-4694-1.2	**Tetrabromobisphenol A (ring-$^{13}C_{12}$,99%)**	$(*C_6Br_2H_2OH)_2C(CH_3)_2$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8734-1.2	**Tetrabromobisphenol A (unlabeled)**	$(C_6Br_2H_2OH)_2C(CH_3)_2$	50 µg/mL in Methanol	1.2 mL
	ED-900	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**	$(*C_6H_2Cl_2)_2O_2$	50 µg/mL in Nonane	1.2 mL
	ED-901	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (unlabeled)**	$(C_6H_2Cl_2)_2O_2$	50 µg/mL in Nonane	4 x 1.2 mL
	CLM-4551-1.2	**2,4,5-Trichlorophenoxyacetic acid (ring-$^{13}C_6$,99%)**	$*C_6C_2H_5Cl_3O_3$	100 µg/mL in Methylene chloride	1.2 mL
	ULM-7213-1.2	**2,4,5-Trichlorophenoxyacetic acid (unlabeled)**	$C_8C_2H_5Cl_3O_3$	100 µg/mL in Methylene chloride	1.2 mL
	DLM-4479-1.2	**Trifluralin (di-*n*-propyl-D_{14},98%)**	$C_{13}D_{14}H_2F_3N_3O_4$	100 µg/mL in Nonane	1.2 mL

Chlorinated Diphenyl Ether Standards

Catalog #	Compound	Formula	Concentration	Amount
EO-1449	**3,3′,4,4′-Tetrachlorodiphenyl ether ($^{13}C_{12}$,99%)**	$(*C_6Cl_2H_3)_2O$	50 µg/mL in Nonane	1.2 mL
EO-1469	**2,3,3′,4,4′,5-Hexachlorodiphenyl ether ($^{13}C_{12}$,99%)**	$*C_6Cl_4HO*C_6Cl_2H_3$	50 µg/mL in Nonane	1.2 mL
EO-4119	**4-Monochlorodiphenyl ether (unlabeled)**	$C_6ClH_4OC_6H_5$	50 µg/mL in Nonane	1.2 mL

Other Industrial Chemical Standards

	DLM-183-1.2	**Benzophenone (D_{10},98%)**	$(C_6D_5)_2C{=}O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8303-1.2	**Benzophenone (unlabeled)**	$(C_6H_5)_2CO$	100 µg/mL in Nonane	1.2 mL
	CLM-4325-1.2	**Bisphenol A (ring-$^{13}C_{12}$,99%)**	$(*C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7106-1.2	**Bisphenol A (unlabeled)**	$(C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8654-1.2	**2,4′-Bisphenol A (unlabeled)**	$C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4674-1.2	***n*-Butylbenzene (ring-$^{13}C_6$,99%)**	$*C_6H_5(CH_2)_3CH_3$	100 µg/mL in Nonane	1.2 mL
	CLM-4695-1.2	**1,2-Dibromo-3-chloropropane ($^{13}C_3$,99%)**	$*C_3H_5Br_2Cl$	100 µg/mL in Methanol	1.2 mL
	CLM-6144-1.2	**1,1-Dichloroethylene (random-^{13}C,99%) (stabilized with Hydroquinone)**	$*CCH_2Cl_2$	100 µg/mL in Methanol	1.2 mL
	ULM-7214-1.2	**1,1-Dichloroethylene (unlabeled) (stabilized with Hydroquinone)**	CCH_2Cl_2	100 µg/mL in Methanol	1.2 mL
	CLM-6145-1.2	**1,2-Dichloroethylene ($^{13}C_1$,99%) (*cis/trans* mix) (stabilized with Hydroquinone)**	$*CCH_2Cl_2$	100 µg/mL in Methanol	1.2 mL
	ULM-7215-1.2	**1,2-Dichloroethylene (unlabeled) (*cis/trans* mix) (stabilized with Hydroquinone)**	CCH_2Cl_2	100 µg/mL in Methanol	1.2 mL
	CLM-1305-1.2	**2,4-Dichlorophenol ($^{13}C_6$,99%)**	$*C_6H_3Cl_2OH$	100 µg/mL in Nonane	1.2 mL
	CLM-3374-1.2	**Epichlorohydrin ($^{13}C_3$,99%)**	$*C_3H_5ClO$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-1008-1	**Epichlorohydrin (D_5,98%)**	$ClCD_2CDCD_2O$	Neat	1 g
	ULM-7403-1.2	**Epichlorohydrin (unlabeled)**	$ClCH_2CHCH_2O$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8008-1.2	**Hexachlorophene ($^{13}C_{13}$,99%)**	$*CH_2[*C_6H(Cl)_3OH]_2$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8009-1.2	**Hexachlorophene (unlabeled)**	$CH_2[C_6H(Cl)_3OH]_2$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-4745-1.2	**4-Hydroxybenzoic acid (ring-$^{13}C_6$,99%)**	$*C_6CH_6O_3HO(*C_6H_4)CO_2H$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-8251-1.2	**4-Hydroxybenzoic acid (unlabeled)**	$C_6CH_6O_3HO(C_6H_4)CO_2H$	1 mg/mL in Methanol	1.2 mL
	CLM-4694-1.2	**Tetrabromobisphenol A (ring-$^{13}C_{12}$,99%)**	$(*C_6Br_2H_2OH)_2C(CH_3)_2$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-8734-1.2	**Tetrabromobisphenol A (unlabeled)**	$(C_6Cl_2H_2OH)_2C(CH_3)_2$	50 µg/mL in Methanol	1.2 mL
NEW	CLM-8006-1.2	**Tetrachlorobisphenol A (ring-$^{13}C_{12}$,99%)**	$*C_{12}C_3H_{12}Cl_4O_2$	50 µg/mL in Methanol	1.2 mL
NEW	ULM-7606-1.2	**Tetrachlorobisphenol A (unlabeled)**	$C_{12}C_3H_{12}Cl_4O_2$	50 µg/mL in Methanol	1.2 mL
NEW	DLM-7136-1.2	**Tributyltin chloride (D_{27},98%)**	$(C_4D_9)_3ClSn$	100 µg/mL in Methylene chloride-D_2	1.2 mL
NEW	ULM-8061-1.2	**Tributyltin chloride (unlabeled)**	$(C_4H_9)_3ClSn$	100 µg/mL in Methylene chloride	1.2 mL
	CLM-6185-1.2	**1,1,1-Trichloroethane (2-^{13}C,99%)**	$*CCH_3Cl_3$	100 µg/mL in Methanol	1.2 mL
	DLM-2080-1.2	**1,2,3-Trichloropropane (D_5,98%)** (CP: 95%)	$CD_2ClCDClCD_2Cl$	100 µg/mL in Methanol	1.2 mL
	ULM-6911-1.2	**1,2,3-Trichloropropane (unlabeled)**	$CH_2ClCHClCH_2Cl$	1 mg/mL in Methanol	1.2 mL

Explosives Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-1519-S	**1,3-Dinitrobenzene ($^{13}C_6$,99%)**	$*C_6H_4(NO_2)_2$	1 mg/mL in Acetonitrile	1 mL
NEW	CLM-1519-0.1	**1,3-Dinitrobenzene ($^{13}C_6$,99%)**	$*C_6H_4(NO_2)_2$	Neat	0.1 g
	ULM-3850-1.2	**1,3-Dinitrobenzene (unlabeled)**	$C_6H_4(NO_2)_2$	1 mg/mL in Acetonitrile	1.2 mL
NEW	DLM-299-10	**2,4-Dinitrophenol (ring-D_3,98%) (contains 0.35 mg/mL deuterium oxide)**	$(NO_2)_2C_6D_3OH$	1 mg/mL in Methanol-OD	10 mL
	DLM-2207-S	**2,4-Dinitrotoluene (ring-D_3,98%)**	$C_6D_3CH_3(NO_2)_2$	1 mg/mL in Acetonitrile	1 mL
	ULM-3888-S	**2,4-Dinitrotoluene (unlabeled)**	$C_6H_3CH_3(NO_2)_2$	1 mg/mL in Acetonitrile	1.2 mL
	DLM-1939-S	**2,6-Dinitrotoluene (methyl-D_3,98%)**	$C_6H_3CD_3(NO_2)_2$	1 mg/mL in Acetonitrile	1 mL
	ULM-3889-S	**2,6-Dinitrotoluene (unlabeled)**	$C_6H_3CH_3(NO_2)_2$	1 mg/mL in Acetonitrile	1 mL
NEW	CNLM-7963-S	**HMX ($^{13}C_4$,99%;ring-$^{15}N_4$,98%)**	$*C_4H_8N_4*N_4O_8$	1 mg/mL in Acetonitrile	1 mL
NEW	ULM-7969-1	**HMX (unlabeled)**	$C_4H_8N_4N_4O_8$	1 mg/mL in Acetonitrile	1 mL
	ULM-3892-1.2	**Nitrobenzene (unlabeled)**	$C_6H_5NO_2$	1 mg/mL in Acetonitrile	1.2 mL
	ULM-3893-S	**Nitroglycerin (Trinitroglycerol) (unlabeled)**	$C_3H_5(NO_3)_3$	1 mg/mL in Acetonitrile	1 mL
	CLM-3912-S	**2-Nitrotoluene (ring-$^{13}C_6$,99%)**	$*C_6H_4CH_3NO_2$	1 mg/mL in Acetonitrile	1 mL
	ULM-3890-1.2	**2-Nitrotoluene (unlabeled)**	$C_6H_4CH_3NO_2$	1 mg/mL in Acetonitrile	1.2 mL
	CLM-3913-S	**4-Nitrotoluene (ring-$^{13}C_6$,99%)**	$*C_6H_4CH_3NO_2$	1 mg/mL in Acetonitrile	1 mL
	ULM-3891-1.2	**4-Nitrotoluene (unlabeled)**	$C_6H_4CH_3NO_2$	1 mg/mL in Acetonitrile	1.2 mL
NEW	CNLM-7987-S	**RDX ($^{13}C_3$,99%;$^{15}N_3$,98%)**	$*C_3H_6N_3(*NO_2)_3$	1 mg/mL in Acetonitrile	1 mL
	CLM-3846-S	**RDX ($^{13}C_3$,99%)**	$*C_3H_6N_3(NO_2)_3$	1 mg/mL in Acetonitrile	1.2 mL
	ULM-3847-S	**RDX (unlabeled)**	$C_3H_6N_3(NO_2)_3$	1 mg/mL in Acetonitrile	1.2 mL
	CLM-3848-S	**1,3,5-Trinitrobenzene ($^{13}C_6$,99%)**	$*C_6H_3(NO_2)_3$	1 mg/mL in Acetonitrile	1.2 mL
	ULM-3849-1.2	**1,3,5-Trinitrobenzene (unlabeled)**	$C_6H_3(NO_2)_3$	1 mg/mL in Acetonitrile	1.2 mL
	CNLM-3643-S	**2,4,6-Trinitrotoluene (TNT) ($^{13}C_7$,99%;$^{15}N_3$,98%)**	$*C_7H_5(*NO_2)_3$	(1 mg/mL in Benzene; wetted with H_2O 33% by weight)	1.2 mL
	ULM-3845-S	**2,4,6-Trinitrotoluene (TNT) (unlabeled)**	$C_7H_5(NO_2)_3$	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	***n*-Pentane (D_{12},98%)**	$CD_3(CD_2)_3CD_3$	1 g
DLM-1213-5	***n*-Pentane (D_{12},98%)**	$CD_3(CD_2)_3CD_3$	5 g
DLM-139-1	***n*-Hexane (D_{14},98%)**	$CD_3(CD_2)_4CD_3$	1 g
DLM-139-5	***n*-Hexane (D_{14},98%)**	$CD_3(CD_2)_4CD_3$	5 g
DLM-423-1	***n*-Heptane (D_{16},98%)**	$CD_3(CD_2)_5CD_3$	1 g
DLM-423-5	***n*-Heptane (D_{16},98%)**	$CD_3(CD_2)_5CD_3$	5 g
DLM-50-1	***n*-Octane (D_{18},99%)**	$CD_3(CD_2)_6CD_3$	1 g
DLM-50-5	***n*-Octane (D_{18},99%)**	$CD_3(CD_2)_6CD_3$	5 g
DLM-2438-1	***n*-Nonane (D_{20},98%)**	$CD_3(CD_2)_7CD_3$	1 g
DLM-2438-5	***n*-Nonane (D_{20},98%)**	$CD_3(CD_2)_7CD_3$	5 g
DLM-133-1	***n*-Decane (D_{22},99%)**	$CD_3(CD_2)_8CD_3$	1 g
DLM-133-5	***n*-Decane (D_{22},99%)**	$CD_3(CD_2)_8CD_3$	5 g
DLM-338-1	***n*-Dodecane (D_{26},98%)**	$CD_3(CD_2)_{10}CD_3$	1 g
DLM-338-5	***n*-Dodecane (D_{26},98%)**	$CD_3(CD_2)_{10}CD_3$	5 g
DLM-1354-0.5	***n*-Tridecane (D_{28},98%)**	$CD_3(CD_2)_{11}CD_3$	0.5 g
DLM-670-1	***n*-Tetradecane (D_{30},98%)**	$CD_3(CD_2)_{12}CD_3$	1 g
DLM-670-5	***n*-Tetradecane (D_{30},98%)**	$CD_3(CD_2)_{12}CD_3$	5 g
DLM-1283-1	***n*-Pentadecane (D_{32},98%)**	$CD_3(CD_2)_{13}CD_3$	1 g
DLM-1283-5	***n*-Pentadecane (D_{32},98%)**	$CD_3(CD_2)_{13}CD_3$	5 g
DLM-203-0.1	***n*-Hexadecane (D_{34},98%)**	$CD_3(CD_2)_{14}CD_3$	0.1 g
DLM-203-5	***n*-Hexadecane (D_{34},98%)**	$CD_3(CD_2)_{14}CD_3$	5 g
DLM-1342-5	***n*-Heptadecane (D_{36},98%)**	$CD_3(CD_2)_{15}CD_3$	5 g
DLM-1346-0.1	***n*-Nonadecane (D_{40},98%)**	$CD_3(CD_2)_{17}CD_3$	0.1 g
DLM-1346-1	***n*-Nonadecane (D_{40},98%)**	$CD_3(CD_2)_{17}CD_3$	1 g
DLM-2208-0.5	***n*-Eicosane (D_{42},98%)**	$CD_3(CD_2)_{18}CD_3$	0.5 g
DLM-2208-1	***n*-Eicosane (D_{42},98%)**	$CD_3(CD_2)_{18}CD_3$	1 g
DLM-3336-1	***n*-Tricosane (D_{48},98%)**	$CD_3(CD_2)_{21}CD_3$	1 g
DLM-2209-0.5	***n*-Tetracosane (D_{50},98%)**	$CD_3(CD_2)_{22}CD_3$	0.5 g
DLM-2210-0.5	***n*-Triacontane (D_{62},98%)**	$CD_3(CD_2)_{28}CD_3$	0.5 g
DLM-2724-1	***n*-Dotriacontane (D_{66},98%)**	$CD_3(CD_2)_{30}CD_3$	1 g
DLM-2634-1	***n*-Hexatriacontane (D_{74},98%)**	$CD_3(CD_2)_{34}CD_3$	1 g

Priority Pollutant Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-1643-1.2	**Acenaphthene ($^{13}C_6$,99%)**	$*C_6C_6H_{10}$	100 µg/mL in Nonane	1.2 mL
	ULM-7413-1.2	**Acenaphthene (unlabeled)**	$C_{12}H_{10}$	100 µg/mL in Nonane	1.2 mL
	CLM-2477-1.2	**Acenaphthylene ($^{13}C_6$,99%)**	$*C_6C_6H_8$	100 µg/mL in Nonane	1.2 mL
	ULM-7422-1.2	**Acenaphthylene (unlabeled)**	$C_{12}H_8$	100 µg/mL in Nonane	1.2 mL
	DLM-9-10	**Acetone (D_6,99.9%)**	CD_3COCD_3	Neat	10 g
	CLM-856-0.1	**Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) ($^{13}C_3$,99%)**	$H_2*C=*CH*CN$	Neat	0.1 g
	DLM-820-1	**Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) (D_3,98%)**	$D_2C=CDCN$	Neat	1 g
	DLM-820-5	**Acrylonitrile (inhibited with 0.1% 4-Methoxy phenol) (D_3,98%)**	$D_2C=CDCN$	Neat	5 g
	CLM-4725-1.2	**Aldrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7441-1.2	**Aldrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	DLM-2030-1.2	**2-Aminonaphthalene (ring-D_7,98%)**	$C_{10}D_7NH_2$	1 mg/mL in Benzene	1.2 mL
NEW	DLM-7658	**1-Amino-2-propanol (D_9,98%)**	C_3D_9NO	Neat	
	CLM-714-0.1	**Aniline ($^{13}C_6$,99%)**	$*C_6H_5NH_2$	Neat	0.1 g
	CLM-714-0.25	**Aniline ($^{13}C_6$,99%)**	$*C_6H_5NH_2$	Neat	0.25 g
	DLM-862-1	**Aniline (ring-D_5,98%)**	$C_6D_5NH_2$	Neat	1 g
	DLM-862-5	**Aniline (ring-D_5,98%)**	$C_6D_5NH_2$	Neat	5 g
	DLM-106-5	**Aniline (D_7,98%)**	$C_6D_5ND_2$	Neat	5 g
	CLM-1333-1.2	**Anthracene ($^{13}C_6$,99%)**	$*C_6C_8H_{10}$	100 µg/mL in Nonane	1.2 mL
	ULM-7412-1.2	**Anthracene (unlabeled)**	$C_{14}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	CLM-3602-1.2	**Benz[*a*]anthracene ($^{13}C_6$,99%)**	$*C_6C_{12}H_{12}$	100 µg/mL in Nonane	1.2 mL
	ULM-2415-I-1.2	**Benz[*a*]anthracene (unlabeled)**	$C_{18}H_{12}$	200 µg/mL in Isooctane	1.2 mL
	CLM-182-0.1	**Benzene ($^{13}C_6$,99%)**	$*C_6H_6$	Neat	0.1 g
	CLM-182-0.5	**Benzene ($^{13}C_6$,99%)**	$*C_6H_6$	Neat	0.5 g
	DLM-1101-5	**Benzene (D_1,98%)**	C_6H_5D	Neat	5 g
	DLM-256	**Benzene (D_5,98%)**	C_6HD_5	Neat	
	DLM-1-5	**Benzene (D_6,99.5%)**	C_6D_6	Neat	5 g
	CDLM-629-0.1	**Benzene ($^{13}C_6$,99%;D_6,98%)**	$*C_6D_6$	Neat	0.1 g
	DLM-1338-1.2	**Benzidine (ring-D_8,98%)**	$C_{12}D_8(NH_2)_2$	100 µg/mL in Toluene	1.2 mL
	DLM-122-1	**Benzoic acid (ring-D_5,98%)**	$C_8D_5CO_2H$	Neat	1 g
	DLM-122-5	**Benzoic acid (ring-D_5,98%)**	$C_8D_5CO_2H$	Neat	5 g
	CLM-2722-1.2	**Benzo[*a*]pyrene ($^{13}C_4$,99%)**	$*C_4C_{16}H_{12}$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8717-1.2	**Benzo[*a*]pyrene (unlabeled)**	$C_{20}H_{12}$	200 µg/mL in Isooctane	1.2 mL
	CLM-3599-1.2	**Benzo[*b*]fluoranthene ($^{13}C_6$,99%)**	$*C_6C_{14}H_{12}$	100 µg/mL in Nonane	1.2 mL
	CLM-3756-1.2	**Benzo[*k*]fluoranthene ($^{13}C_6$,99%)**	$*C_6C_{14}H_{12}$	100 µg/mL in Nonane	1.2 mL
	CLM-1364-1.2	**Benzo[*g,h,i*]perylene ($^{13}C_{12}$,99%)**	$*C_{12}C_{10}H_{12}$	100 µg/mL in Nonane	1.2 mL
	ULM-2418-1.2	**Benzo[*g,h,i*]perylene (unlabeled)**	$C_{22}H_{12}$	200 µg/mL in Toluene	1.2 mL
	DLM-1663-1	**1,4-Benzoquinone (D_4,98%)**	$O(C_6D_4)O$	Neat	1 g
	DLM-1369-1.2	**Benzyl butyl phthalate (ring-D_4,98%)**	C_6D_4-1-[$CO_2CH_2C_6H_5$]-2-[CO_2-*n*-C_4H_9]	100 µg/mL in Nonane	1.2 mL
	DLM-1369-0.1	**Benzyl butyl phthalate (ring-D_4,98%)**	C_6D_4-1-[$CO_2CH_2C_6H_5$]-2-[CO_2-*n*-C_4H_9]	Neat	0.1 g
	CLM-2482-1.2	**α-BHC (α-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7232-1.2	**α-BHC (α-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-3623-1.2	**β-BHC (β-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	50 µg/mL in Nonane	2 x 1.2 mL
	ULM-6132-1.2	**β-BHC (β-HCH) (unlabeled)**	$C_6H_6Cl_6$	50 µg/mL in Nonane	2 x 1.2 mL
	ULM-6132-SM-1.2	**β-BHC (β-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Methanol	1.2 mL
	CDLM-624-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%;D_6,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-1282-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6133-1.2	**γ-BHC (γ-HCH) (Lindane) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6133-SM-1.2	**γ-BHC (γ-HCH) (Lindane) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Methanol	1.2 mL
	CLM-3648-1.2	**δ-BHC (δ-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7233-1.2	**δ-BHC (δ-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL

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	Catalog #	Compound	Formula	Concentration	Amount
	CLM-3235-1.2	**Biphenyl ($^{13}C_{12}$,99%)**	*$C_{12}H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-494-1	**Biphenyl (D_{10},98%)**	$C_{12}D_{10}$	Neat	1 g
	DLM-494-5	**Biphenyl (D_{10},98%)**	$C_{12}D_{10}$	Neat	5 g
	ULM-1710-1.2	**Biphenyl (unlabeled)**	$C_{12}H_{10}$	50 µg/mL in Nonane	1.2 mL
	ULM-1710-0.5	**Biphenyl (unlabeled)**	$C_{12}H_{10}$	Neat	0.5 g
	DLM-1945-0.1	**Bis(2-chloroethoxy) methane (chloroethoxy-D_8,98%)**	$CH_2(OCD_2CD_2Cl)_2$	Neat	0.1 g
	DLM-2004-0.05	**Bis(2-chloroethyl) ether (D_8,98%)**	$ClCD_2CD_2OCD_2CD_2Cl$	Neat	0.05 g
	DLM-2004-0.1	**Bis(2-chloroethyl) ether (D_8,98%)**	$ClCD_2CD_2OCD_2CD_2Cl$	Neat	0.1 g
NEW	DLM-2138	**Bis(2-chloroisopropyl) ether (D_{12},95%)**	$C_6D_{12}C_{12}O$		Inquire
NEW	ULM-3693	**Bis(2-chloroisopropyl) ether (unlabeled)**	$C_6H_{12}C_{12}O$		Inquire
	CLM-4325-1.2	**Bisphenol A (ring-$^{13}C_{12}$,99%)**	*$(C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7106-1.2	**Bisphenol A (unlabeled)**	$(C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8654-1.2	**2,4'-Bisphenol A (2-(2-hydroxyphenyl)-2-(4-hydroxyphenyl) propane) (unlabeled)**	$(C_6H_4OH)_2C(CH_3)_2$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-1368-1.2	**Bis(2-ethylhexyl) phthalate (ring-D_4,98%)**	$C_6D_4[CO_2CH_2CH(C_2H_5)C_4H_9]_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1368-0.1	**Bis(2-ethylhexyl) phthalate (ring-D_4,98%)**	$C_6D_4[CO_2CH_2CH(C_2H_5)C_4H_9]_2$	Neat	0.1 g
	DLM-1368-0.25	**Bis(2-ethylhexyl) phthalate (ring-D_4,98%)**	$C_6D_4[CO_2CH_2CH(C_2H_5)C_4H_9]_2$	Neat	0.25 g
	CLM-871-0.5	**Bromobenzene ($^{13}C_6$,99%)**	*C_6H_5Br	Neat	0.5 g
	DLM-398-5	**Bromobenzene (D_5,99%)**	C_6D_5Br	Neat	5 g
	DLM-398-10	**Bromobenzene (D_5,99%)**	C_6D_5Br	Neat	10 g
	DLM-398-25	**Bromobenzene (D_5,99%)**	C_6D_5Br	Neat	25 g
	DLM-872-0.1	**Bromochloromethane (D_2,98%)**	CD_2ClBr	Neat	0.1 g
	CLM-2090-1	**Bromodichloromethane (^{13}C,99%) (stabilized with K_2CO_3)**	Br*$CHCl_2$	Neat	1 g
	ULM-8480	**Bromodichloromethane (unlabeled)**	$BrCHCl_2$		Inquire
	DLM-874-10	**Bromoethane (D_5,98%)**	CD_3CD_2Br	Neat	10 g
	DLM-103-1	**2-Bromoethanol (1,1,2,2-D_4,98%)** (CP: 95%+)	$BrCD_2CD_2OH$	Neat	1 g
	DLM-103-5	**2-Bromoethanol (1,1,2,2-D_4,98%)** (CP: 95%+)	$BrCD_2CD_2OH$	Neat	5 g
	CLM-726-0.1	**Bromoform (stabilized with copper wire) (^{13}C,99%)**	*$CHBr_3$	Neat	0.1 g
	CLM-726-0.5	**Bromoform (stabilized with copper wire) (^{13}C,99%)**	*$CHBr_3$	Neat	0.5 g
	DLM-400-10	**Bromoform (stabilized with copper wire) (D,99.5%)**	$CDBr_3$	Neat	10 g
	DLM-400-25	**Bromoform (stabilized with copper wire) (D,99.5%)**	$CDBr_3$	Neat	25 g
	CLM-1217-1	**Bromomethane (^{13}C,99%) ****	*CH_3Br	Neat	1 L
	DLM-401-5	**Bromomethane (D_3,99%) ****	CD_3Br	Neat	5 g
	EO-4999	**4-MonoBDE ($^{13}C_{12}$,99%) (BDE-3)**	*$C_{12}H_9BrO$	50 µg/mL in Nonane	1.2 mL
	DLM-1947-0.1	**4-Bromophenyl phenyl ether (phenyl-D_5,98%) (BDE-3)**	$BrC_6H_4OC_6D_5$	Neat	0.1 g
	BDE-3-CS	**4-MonoBDE (unlabeled) (BDE-3)**	$C_{12}H_9BrO$	50 µg/mL in Nonane	1.2 mL
	DLM-1910-0.1	**2-Butanone (Methyl ethyl ketone; MEK) (4,4,4-D_3,98%)**	$CD_3CH_2COCH_3$	Neat	0.1 g
	DLM-1910-1	**2-Butanone (Methyl ethyl ketone; MEK) (4,4,4-D_3,98%)**	$CD_3CH_2COCH_3$	Neat	1 g
	DLM-663-0.1	**2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D_5,98%)**	$CH_3CD_2COCD_3$	Neat	0.1 g
	DLM-663-1	**2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D_5,98%)**	$CH_3CD_2COCD_3$	Neat	1 g
	DLM-663-5	**2-Butanone (Methyl ethyl ketone; MEK) (1,1,1,3,3-D_5,98%)**	$CH_3CD_2COCD_3$	Neat	5 g

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	DLM-2134-0.1	**Carbazole (D_8,98%)**	$C_{12}D_8NH$	Neat	0.1 g
	CLM-731-0.1	**Carbon tetrachloride (^{13}C,99%)**	$*CCl_4$	Neat	0.1 g
	CLM-731-0.5	**Carbon tetrachloride (^{13}C,99%)**	$*CCl_4$	Neat	0.5 g
	CLM-731-1	**Carbon tetrachloride (^{13}C,99%)**	$*CCl_4$	Neat	1 g
	CLM-1520-1	**Catechol ($^{13}C_6$,99%)**	$*C_6H_4(OH)_2$	Neat	1 mg
	DLM-1912-5	**Catechol (D_6,98%)**	$C_6D_4(OD)_2$	Neat	5 g
	DLM-263-1	**Chlorobenzene (D_5,99%)**	C_6D_5Cl	Neat	1 g
	DLM-263-5	**Chlorobenzene (D_5,99%)**	C_6D_5Cl	Neat	5 g
	CLM-2284-1	**4-Chlorocatechol ($^{13}C_6$,99%)**	$Cl*C_6H_3(OH)_2$	Neat	1 mg
	ULM-1701-0.1	**4-Chlorocatechol (unlabeled)** (CP: 90-95%)	$ClC_6H_3(OH)_2$	Neat	0.1 g
NEW	CLM-8087-1.2	***cis*-Chlordane (α) ($^{13}C_{10}$,99%)**	$*C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2419-25	***cis*-Chlordane (α) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
	CLM-4792-1.2	***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	$*C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2420-25	***trans*-Chlordane (γ) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
	CLM-2091	**Chlorodibromomethane (^{13}C,99%)**	Br_2*CHCl		Inquire
	DLM-1171-5	**Chloroethane (D_5,98%) ****	CD_3CD_2Cl	Neat	5 g
	DLM-1928-0.5	**2-Chloroethanol (1,1,2,2-D_4,98%)**	$ClCD_2CD_2OH$	Neat	0.5 g
	CLM-262-0.1	**Chloroform (^{13}C,99%)**	$*CHCl_3$	Neat	0.1 g
	CLM-262-0.5	**Chloroform (^{13}C,99%)**	$*CHCl_3$	Neat	0.5 g
	CLM-262-1	**Chloroform (^{13}C,99%)**	$*CHCl_3$	Neat	1 g
	ULM-1705-0.1	**4-Chloroguaiacol (unlabeled)** (CP: 85-90%)	$ClC_6H_3(OH)(OCH_3)$	Neat	0.1 g
	DLM-2037-1	**Chloroiodomethane (stabilized with copper wire) (D_2,98%)**	$ClCD_2I$	Neat	1 g
NEW	DLM-337-1-BS	**Chloromethane (D_3,99%)**	CD_3Cl	Neat	1 L
NEW	DLM-337-1-LB	**Chloromethane (D_3,99%)**	CD_3Cl	Neat	1 L
	CLM-339-1	**Chloromethane (^{13}C,99%)**	$*CH_3Cl$	Neat	1 L
	DLM-2205-0.01	**4-Chloro-3-methylphenol (ring-2,6-D_2,98%)**	$C_7D_2H_4ClO$	Neat	0.01 g
	DLM-2205-0.1	**4-Chloro-3-methylphenol (ring-2,6-D_2,98%)**	$C_7D_2H_4ClO$	Neat	0.1 g
	DLM-2005-1.2	**2-Chloronaphthalene (D_7,98%)**	$C_{10}D_7Cl$	100 µg/mL in Nonane	1.2 mL
	DLM-2005-0.01	**2-Chloronaphthalene (D_7,98%)**	$C_{10}D_7Cl$	Neat	0.01 g
	DLM-2005-0.1	**2-Chloronaphthalene (D_7,98%)**	$C_{10}D_7Cl$	Neat	0.1 g
	CLM-1559-1	**4-Chloronitrobenzene ($^{13}C_6$,99%)**	$*C_6H_4NO_2Cl$	Neat	1 mg
	DLM-1638-0.1	**2-Chlorophenol (ring-D_4,99%)**	ClC_6D_4OH	Neat	0.1 g
	DLM-1638-0.25	**2-Chlorophenol (ring-D_4,99%)**	ClC_6D_4OH	Neat	0.25 g
	DLM-1930-0.1	**4-Chlorophenyl phenyl ether (phenyl-D_5,98%)**	$ClC_6H_4OC_6D_5$	Neat	0.1 g
	ULM-2421-0.1	**4-Chlorophenyl phenyl ether (unlabeled)**	$ClC_6H_4OC_6H_5$	Neat	0.1 g
	DLM-3014-1	**2-Chloropropene (D_5,98%)**	$D_3CClC{=}CD_2$	Neat	1 g
	DLM-3014-5	**2-Chloropropene (D_5,98%)**	$D_3CClC{=}CD_2$	Neat	5 g
	DLM-3016-5	***o*-Cresol (D_8,98%)**	$D_3CC_6D_4OD$	Neat	5 g
	DLM-3017-5	***p*-Cresol (D_8,98%)**	$D_3CC_6D_4OD$	Neat	5 g
NEW	CLM-7341	***p*-Cresol (ring-$^{13}C_6$,99%)**	$*C_6CH_8O$		Inquire
	CLM-6999-1.2	**2,4′-DDD (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	$*C_{12}C_2H_{10}Cl_4$	50 µg/mL in Nonane	1.2 mL
	ULM-7450-1.2	**2,4′-DDD (unlabeled) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}H_{10}Cl_4$	50 µg/mL in Nonane	1.2 mL
	CLM-7100-1.2	**4,4′-DDD (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$*C_{12}C_2H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL
	DLM-3533-1.2	**4,4′-DDD (ring-D_8,98%) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}D_8H_2Cl_4$	100 µg/mL in Nonane	1.2 mL
	ULM-7216-1.2	**4,4′-DDD (unlabeled) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL

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CLM-4693-1.2	**2,4′-DDE (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl^*C_6H_4)_2C=CCl_2$	100 µg/mL in Nonane	1.2 mL
ULM-6251-1.2	**2,4′-DDE (unlabeled) [(*o,p*′-Dichlorodiphenyl) dichloroethylene]**	$C_{14}H_8Cl_4$	100 µg/mL in Nonane	1.2 mL
CLM-1627-1.2	**4,4′-DDE (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl^*C_6H_4)_2C=CCl_2$	100 µg/mL in Nonane	1.2 mL
CLM-1627-5	**4,4′-DDE (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl^*C_6H_4)_2C=CCl_2$	Neat	5 mg
ULM-6137-1.2	**4,4′-DDE (unlabeled) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(ClC_6H_4)_2C=CCl_2$	100 µg/mL in Nonane	1.2 mL
CLM-4692-1.2	**2,4′-DDT (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl^*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
ULM-6134-1.2	**2,4′-DDT (unlabeled) [(*o,p*′-Dichlorodiphenyl) trichloroethane]**	$ClC_6H_4CH(CCl_3)C_6H_4Cl$	100 µg/mL in Nonane	1.2 mL
CLM-1281-1.2	**4,4′-DDT (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl^*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
CLM-1281-5	**4,4′-DDT (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl^*C_6H_4)_2CHCCl_3$	Neat	5 mg
ULM-6135-1.2	**4,4′-DDT (unlabeled) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(ClC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
DLM-1386-1	**Decalin (D_{18},99%) (*cis/trans* mixture)**	$C_{10}D_{18}$	Neat	1 g
DLM-1386-5	**Decalin (D_{18},99%) (*cis/trans* mixture)**	$C_{10}D_{18}$	Neat	5 g
DLM-1843-5	***trans*-Decalin (D_{18},98%)**	$C_{10}D_{18}$	Neat	5 g
CLM-3598-1.2	**Dibenz[*a,h*]anthracene ($^{13}C_6$,99%)**	$^*C_6C_{16}H_{14}$	100 µg/mL in Nonane	1.2 mL
DLM-677-1.2	**Dibenz[*a,h*]anthracene (D_{14},98%)**	$C_{22}D_{14}$	200 µg/mL in Toluene-D_8	1.2 mL
DLM-677-0.1	**Dibenz[*a,h*]anthracene (D_{14},98%)**	$C_{22}D_{14}$	Neat	0.1 g
ULM-2422-1.2	**Dibenz[*a,h*]anthracene (unlabeled)**	$C_{22}H_{14}$	200 µg/mL in Toluene-D_8	1.2 mL
ULM-2422-0.1	**Dibenz[*a,h*]anthracene (unlabeled)**	$C_{22}H_{14}$	Neat	0.1 g
CLM-1544-1.2	**Dibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**	$^*C_{12}H_8O_2$	50 µg/mL in Nonane	1.2 mL
ULM-1711-1.2	**Dibenzo-*p*-dioxin (unlabeled)**	$C_{12}H_8O_2$	50 µg/mL in Nonane	1.2 mL
ULM-1711-0.01	**Dibenzo-*p*-dioxin (unlabeled)**	$C_{12}H_8O_2$	Neat	0.01 g
CLM-1561-1.2	**Dibenzofuran ($^{13}C_{12}$,99%)**	$^*C_{12}H_8O$	50 µg/mL in Nonane	1.2 mL
DLM-2276-0.05	**Dibenzofuran (D_8,98%)**	$C_{12}D_8O$	Neat	0.05 g
ULM-1712-1.2	**Dibenzofuran (unlabeled)**	$C_{12}H_8O$	50 µg/mL in Nonane	1.2 mL
ULM-1712-0.05	**Dibenzofuran (unlabeled)**	$C_{12}H_8O$	Neat	0.05 g
DLM-2206-0.1	**Dibenzothiophene (D_8,98%)**	$C_{12}D_8S$	Neat	0.1 g
CLM-1340-0.1	**1,4-Dibromobenzene ($^{13}C_6$,99%)**	$^*C_6H_4Br_2$	Neat	0.1 g
DLM-341-5	**1,4-Dibromobenzene (D_4,98%)**	$C_6D_4Br_2$	Neat	5 g
CLM-483-0.1	**1,2-Dibromoethane ($^{13}C_2$,99%)**	$Br^*CH_2{}^*CH_2Br$	Neat	0.1 g
CLM-483-1	**1,2-Dibromoethane ($^{13}C_2$,99%)**	$Br^*CH_2{}^*CH_2Br$	Neat	1 g
DLM-1367-1.2	**Di-*n*-butyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$[CO_2C_4H_9]_2$	100 µg/mL in Nonane	1.2 mL
DLM-1367-0.1	**Di-*n*-butyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$[CO_2C_4H_9]_2$	Neat	0 .1 g
DLM-1367-0.25	**Di-*n*-butyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$[CO_2C_4H_9]_2$	Neat	0.25 g
CLM-735-1	**3,4-Dichloroaniline ($^{13}C_6$,99%)**	$^*C_6H_3Cl_3NH_2$	Neat	1 mg
DLM-158-1	**1,2-Dichlorobenzene (D_4,99%)**	$C_6D_4Cl_2$	Neat	1 g
DLM-158-5	**1,2-Dichlorobenzene (D_4,99%)**	$C_6D_4Cl_2$	Neat	5 g
CLM-4484-1.2	**1,3-Dichlorobenzene ($^{13}C_6$,99%)**	$^*C_6H_4Cl_2$	100 µg/mL in Isooctane	1.2 mL
CLM-1518-1	**1,4-Dichlorobenzene ($^{13}C_6$,99%)**	$^*C_6H_4Cl_2$	Neat	1 mg
DLM-268-5	**1,4-Dichlorobenzene (D_4,98%)**	$C_6D_4Cl_2$	Neat	5 g
DLM-3022-1.2	**3,3′-Dichlorobenzidine (ring-D_6,98%)**	$C_{12}D_6H_4N_2Cl_2$	1 mg/mL in Benzene	1.2 mL
ULM-1702-0.1	**4,5-Dichlorocatechol (unlabeled)** (CP: 95-99%)	$Cl_2C_6H_2(OH)_2$	Neat	0.1 g

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	Catalog #	Compound	Formula	Concentration	Amount
	DLM-1934-0.1	**1,1-Dichloroethane (2,2,2-D_3,98%)**	CD_3CHCl_2	Neat	0.1 g
	DLM-1934-0.25	**1,1-Dichloroethane (2,2,2-D_3,98%)**	CD_3CHCl_2	Neat	0.25 g
	DLM-18-1	**1,2-Dichloroethane (D_4,99%)**	$ClCD_2CD_2Cl$	Neat	1 g
	DLM-18-5	**1,2-Dichloroethane (D_4,99%)**	$ClCD_2CD_2Cl$	Neat	5 g
	DLM-1935-0.1	**1,1-Dichloroethylene (inhibited with hydroquinone) (2,2-D_2,98%)**	$CD_2=CCl_2$	Neat	0.1 g
	DLM-1935-1	**1,1-Dichloroethylene (inhibited with hydroquinone) (2,2-D_2,98%)**	$CD_2=CCl_2$	Neat	1 g
	DLM-1936-0.1	**1,2-Dichloroethylene (*cis/trans* mixture) (1,2-D_2,98%)**	ClCD=CDCl	Neat	0.1 g
	DLM-1936-1	**1,2-Dichloroethylene (*cis/trans* mixture) (1,2-D_2,98%)**	ClCD=CDCl	Neat	1 g
	DLM-1359-0.1	**2,4-Dichlorophenol (ring-D_3,98%)**	$C_6D_3Cl_2OH$	Neat	0.1 g
	DLM-1669-0.1	**2,4-Dichlorophenol (D_4,98%)**	$C_6D_3Cl_2OD$	Neat	0.1 g
	DLM-1937-0.1	**1,2-Dichloropropane (D_6,98%)**	$ClCD_2CDClCD_3$	Neat	0.1 g
NEW	DLM-1937-0.25	**1,2-Dichloropropane (D_6,98%)**	$CD_3CD(Cl)CD_2Cl$	Neat	0.25 g
NEW	DLM-2112-1.2	**1,3-Dichloro-2-propanol (D_5,98%)**	$ClCD_2CD(OH)CD_2Cl$	1 mg/mL in Methanol	1.2 mL
NEW	ULM-8092-1.2	**1,3-Dichloro-2-propanol (unlabeled)**	$ClCH_2CH(OH)CH_2Cl$	1 mg/mL in Methanol	1.2 mL
	DLM-1938-0.1	**1,3-Dichloropropene (*cis/trans* mixture) (D_4,98%)**	$ClCD_2CD=CDCl$	Neat	0.1 g
	ULM-1700-0.1	**5,6-Dichlorovanillin (unlabeled)**	$Cl_2C_6H(CHO)(OH)(OCH_3)$	Neat	0.1 g
	CLM-4726-1.2	**Dieldrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7230-1.2	**Dieldrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	DLM-1592-1	**Diethyl ether (D_{10},99%)**	$O(CD_3CD_2)_2$	Neat	1 g
	DLM-1592-5	**Diethyl ether (D_{10},99%)**	$O(CD_3CD_2)_2$	Neat	5 g
	DLM-1629-1.2	**Diethyl phthalate (ring-D_4,99%)**	$C_6D_4(CO_2CH_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1629-0.1	**Diethyl phthalate (ring-D_4,99%)**	$C_6D_4(CO_2CH_2CH_3)_2$	Neat	0.1 g
	DLM-1629-0.25	**Diethyl phthalate (ring-D_4,99%)**	$C_6D_4(CO_2CH_2CH_3)_2$	Neat	0.25 g
	CLM-1006-0.5	**Diiodomethane (stabilized with copper wire) (^{13}C,99%)**	$*CH_2I_2$	Neat	0.5 g
	DLM-3190-1	***N,N*-Dimethylaniline (D_{11},98%)**	$C_6D_5N(CD_3)_2$	Neat	1 g
	CLM-503-0.5	***N,N*-Dimethylformamide (carbonyl-^{13}C,99%)**	$H*CON(CH_3)_2$	Neat	0.5 g
	CLM-503-1	***N,N*-Dimethylformamide (carbonyl-^{13}C,99%)**	$H*CON(CH_3)_2$	Neat	1 g
	DLM-3073-0.1	**2,4-Dimethylphenol (ring-D_3,98%)**	$(CH_3)_2C_6D_3OH$	Neat	0.1 g
	DLM-3073-0.25	**2,4-Dimethylphenol (ring-D_3,98%)**	$(CH_3)_2C_6D_3OH$	Neat	0.25 g
	DLM-1366-1.2	**Dimethyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$(CO_2CH_3)_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1366-0.1	**Dimethyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$(CO_2CH_3)_2$	Neat	0.1 g
	DLM-3024-5	**1,3-Dinitrobenzene (D_4,98%)**	$C_6D_4N_2O_4$	Neat	5 g
	DLM-3173-0.1	**4,6-Dinitro-2-methylphenol (ring-D_2,98%)**	$CH_3C_6D_2(NO_2)_2OH$	Neat	0.1 g
NEW	DLM-299-10	**2,4-Dinitrophenol (ring-D_3,98%)**	$C_6D_3(NO_2)_2OH$	1 mg/mL in Methanol-OD	10 mL
	DLM-2207-S	**2,4-Dinitrotoluene (ring-D_3,98%)**	$H_3CC_6D_3(NO_2)_2$	1 mg/mL in Acetonitrile	1 mL
	DLM-1939-S	**2,6-Dinitrotoluene (methyl-D_3,98%)**	$D_3CC_6H_5(NO_2)_2$	1 mg/mL in Acetonitrile	1 mL
	DLM-1630-1.2	**Di-*n*-octyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$[CO_2C_8H_{17}]_2$	100 µg/mL in Nonane	1.2 mL
	DLM-1630-0.1	**Di-*n*-octyl phthalate (ring-D_4,98%)**	C_6D_4-1,2-$[CO_2C_8H_{17}]_2$	Neat	0.1 g
	ULM-6129-1.2	**Di-*n*-octyl phthalate (unlabeled)**	$C_6H_4[CO_2(CH_2)_7CH_3]_2$	100 µg/mL in Nonane	1.2 mL
NEW	DLM-28-SM-1.2	**1,4-Dioxane (*p*-Dioxane) (D_8,99%)**	$C_4D_8O_2$	1 mg/mL in Methanol	1.2 mL
	DLM-28-5	**1,4-Dioxane (*p*-Dioxane) (D_8,99%)**	$C_4D_8O_2$	Neat	5 g
NEW	ULM-7840-1.2	**1,4-Dioxane (*p*-Dioxane) (unlabeled)**	$C_4H_8O_2$	1 mg/mL in Methanol	1.2 mL
	DLM-2133-0.1	**Diphenylamine (diphenyl-D_{10},98%)**	$C_6D_5NHC_6D_5$	Neat	0.1 g
	CLM-1587-1.2	**Diphenyl ether ($^{13}C_{12}$,99%)**	$(*C_6H_5)_2O$	50 µg/mL in Nonane	1.2 mL
	DLM-2211-0.1	**Diphenyl ether (D_{10},98%)**	$(C_6D_5)_2O$	Neat	0.1 g
	DLM-3026-0.05	**1,2-Diphenylhydrazine (diphenyl-D_{10},98%)**	$C_{12}D_{10}H_5N_2$	Neat	0.05 g
	DLM-3026-0.1	**1,2-Diphenylhydrazine (diphenyl-D_{10},98%)**	$C_{12}D_{10}H_5N_2$	Neat	0.1 g

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	Catalog #	Compound	Formula	Concentration	Amount
	DLM-2943-1.2	**2,6-Di(*tert*-butyl)-4-methyl-phenol (BHT) (D_{21},98%)**	$[(CD_3)_3C]_2C_6D_2(CH_3)OH$	100 µg/mL in Nonane	1.2 mL
	DLM-411-5	**Durene (1,2,4,5-Tetramethylbenzene) (D_{14},98%)**	$C_6D_2(CD_3)_4$	Neat	5 g
	CLM-6025-1.2	**Endosulfan I ($^{13}C_9$,99%)**	$*C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	DLM-2862-1.2	**Endosulfan I (D_4,97%)**	$C_9D_4H_2Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7447-1.2	**Endosulfan I (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	CLM-6026-1.2	**Endosulfan II ($^{13}C_9$,99%)**	$*C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7448-1.2	**Endosulfan II (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-7531-1.2	**Endosulfan sulfate ($^{13}C_9$,99%)**	$*C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7990-1.2	**Endosulfan sulfate (unlabeled)**	$C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
	CLM-4782-1.2	**Endrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7444-1.2	**Endrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	CLM-4815-50	**Endrin aldehyde ($^{13}C_{12}$,99%)**	$*C_{10}C_2H_{10}Cl_6O$	Neat	50 µg
	CLM-3374-1.2	**Epichlorohydrin ($^{13}C_3$,99%)**	$*C_3H_5ClO$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-1008-1	**Epichlorohydrin (D_5,98%)**	$ClCD_2CDCD_2O$	Neat	1 g
	ULM-7403-1.2	**Epichlorohydrin (unlabeled)**	$ClCH_2CHCH_2O$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-686-5	**Ethylbenzene (ethyl-D_5,98%)**	$C_6H_5CD_2CD_3$	Neat	5 g
	DLM-199-10	**Ethylbenzene (D_{10},98%)**	$C_6D_5CD_2CD_3$	Neat	10 g
NEW	DLM-4304-10	**Ethylbenzene (D_{10},99%)**	$C_6D_5CD_2CD_3$	Neat	10 g
	CLM-473-0.1	**Ethylene oxide ($^{13}C_2$,99%) ** (airfreight forbidden)**	$*CH_2*CH_2O$	Neat	0.1 g
	CLM-473-0.5	**Ethylene oxide ($^{13}C_2$,99%) ** (airfreight forbidden)**	$*CH_2*CH_2O$	Neat	0.5 g
	DLM-271-5	**Ethylene oxide (D_4,99%) ** (airfreight forbidden)**	CD_2CD_2O	Neat	5 g
	CLM-3597-1.2	**Fluoranthene ($^{13}C_6$,99%)**	$*C_6C_{10}H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-2140-1.2	**Fluoranthene (D_{10},98%)**	$C_{16}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-2140-0.1	**Fluoranthene (D_{10},98%)**	$C_{16}D_{10}$	Neat	0.1 g
	ULM-7421-1.2	**Fluoranthene (unlabeled)**	$C_{16}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	CLM-3596-1.2	**Fluorene ($^{13}C_6$,99%)**	$*C_6C_7H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-1123-1.2	**Fluorene (D_{10},98%)**	$C_{13}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-1123-0.1	**Fluorene (D_{10},98%)**	$C_{13}D_{10}$	Neat	0.1 g
	DLM-1123-1	**Fluorene (D_{10},98%)**	$C_{13}D_{10}$	Neat	1 g
	ULM-7414-1.2	**Fluorene (unlabeled)**	$C_{13}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	CLM-810-1	**Guaiacol (ring-$^{13}C_6$,99%)**	$CH_3O*C_6H_4OH$	Neat	1 mg
	CLM-4759-1.2	**Heptachlor ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-1.2	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-0.1	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	Neat	0.1 g
	CLM-4734-1.2	***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-1.2	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-0.1	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	Neat	0.1 g
NEW	ULM-7869-1.2	***trans*-Heptachlor epoxide (A isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	CLM-351-1.2	**Hexachlorobenzene ($^{13}C_6$,99%)**	$*C_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-351-0.01	**Hexachlorobenzene ($^{13}C_6$,99%)**	$*C_6Cl_6$	Neat	0.01 g
	ULM-6130-1.2	**Hexachlorobenzene (unlabeled)**	C_6Cl_6	100 µg/mL in Nonane	1.2 mL
NEW	CLM-2145-1.2	**Hexachloro-1,3-butadiene ($^{13}C_4$,99%)**	$*CCl_2=*CCl*CCl=*CCl_2$	100 µg/mL in Isooctane	1.2 mL
	CLM-2145-0.01	**Hexachloro-1,3-butadiene ($^{13}C_4$,99%)**	$*CCl_2=*CCl*CCl=*CCl_2$	Neat	0.01 g
	CLM-2110-5	**Hexachlorocyclopentadiene ($^{13}C_4$,99%)**	C_5Cl_6	Neat	5 mg
	CLM-2110-10	**Hexachlorocyclopentadiene ($^{13}C_4$,99%)**	C_5Cl_6	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.

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	Catalog #	Compound	Formula	Concentration	Amount
	CLM-2003-0.1	**Hexachloroethane (1-^{13}C,99%)**	$CCl_3{*}CCl_3$	Neat	0.1 g
	CLM-2003-0.5	**Hexachloroethane (1-^{13}C,99%)**	$CCl_3{*}CCl_3$	Neat	0.5 g
	ULM-6074-60	**1,2,4,5,7,8-Hexachloroxanthene (unlabeled)**	$C_{13}H_4Cl_6O$	Neat	60 µg
	DLM-277-0.1	**Hexanoic acid (D_{11},98%)**	$CD_3(CD_2)_4CO_2H$	Neat	0.1 g
	DLM-277-1	**Hexanoic acid (D_{11},98%)**	$CD_3(CD_2)_4CO_2H$	Neat	1 g
	DLM-1522-1	**Hydroquinone (ring-D_4,98%)**	HOC_6D_4OH	Neat	1 g
NEW	ULM-2-4X25	**Isooctane (unlabeled)**	$(CH_3)_3CCH_2CH(CH_3)_2$	Neat	4 x 25 mL
	DLM-1943-0.1	**Isophorone (3-methyl-D_3;2,4,4,6,6-D_5,98%)**	$CD_2C(CH_3)_2CD_2C(CD_3)=CDCO$	Neat	0.1 g
NEW	CLM-7864-1.2	**Leucomalachite Green (phenyl-$^{13}C_6$,99%)**	$*C_6H_5CH[C_6H_4N(CH_3)_2]_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7870-1.2	**Leucomalachite Green (unlabeled)**	$C_6H_5CH[C_6H_4N(CH_3)_2]_2$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-24-5	**Methanol (D_4,99.8%)**	CD_3OD	Neat	5 g
	DLM-24-10	**Methanol (D_4,99.8%)**	CD_3OD	Neat	10 g
	CLM-1593-0.25	**Methylene chloride (^{13}C,99%)**	$*CH_2Cl_2$	Neat	0.25 g
	CLM-1593-0.5	**Methylene chloride (^{13}C,99%)**	$*CH_2Cl_2$	Neat	0.5 g
	DLM-23-5	**Methylene chloride (D_2,99.9%)**	CD_2Cl_2	Neat	5 g
	DLM-2277-1	**2-(4-Methylphenyl) propane (D_{14},98%)**	$D_3CC_6D_4CD(CD_3)_2$	Neat	1 g
	CLM-1332-1.2	**Naphthalene ($^{13}C_6$,99%)**	$*C_6C_4H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-365-1.2	**Naphthalene (D_8,99%)**	$C_{10}D_8$	200 µg/mL in Isooctane	1.2 mL
	DLM-365-1	**Naphthalene (D_8,99%)**	$C_{10}D_8$	Neat	1 g
	DLM-365-5	**Naphthalene (D_8,99%)**	$C_{10}D_8$	Neat	5 g
	DLM-365-10	**Naphthalene (D_8,99%)**	$C_{10}D_8$	Neat	10 g
NEW	DLM-3875-10	**Naphthalene (D_8,99.5%)**	$C_{10}D_8$	Neat	10 g
	ULM-7425-1.2	**Naphthalene (unlabeled)**	$C_{10}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	CLM-675-S	**Nitrobenzene ($^{13}C_6$,99%)**	$*C_6H_5NO_2$	1 mg/mL in Acetonitrile	1 mL
	DLM-294-5	**Nitrobenzene (D_5,99%)**	$C_6D_5NO_2$	Neat	5 g
	DLM-294-10	**Nitrobenzene (D_5,99%)**	$C_6D_5NO_2$	Neat	10 g
	ULM-3892-1.2	**Nitrobenzene (unlabeled)**	$C_6H_5NO_2$	1 mg/mL in Acetonitrile	1.2 mL
NEW	DLM-7779-S	***N*-Nitrodimethylamine (dimethyl-D_6,98%)**	$C_2D_6N_2O_2$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	ULM-7780-S	***N*-Nitrodimethylamine (unlabeled)**	$C_2H_6N_2O_2$	1 mg/mL in Methylene chloride	1 mL
	DLM-295-0.1	**2-Nitrophenol (ring-D_4,98%)**	$O_2NC_6D_4OH$	Neat	0.1 g
	DLM-295-0.25	**2-Nitrophenol (ring-D_4,98%)**	$O_2NC_6D_4OH$	Neat	0.25 g
	DLM-296-0.1	**4-Nitrophenol (ring-D_4,98%)**	$O_2NC_6D_4OH$	Neat	0.1 g
	DLM-296-0.25	**4-Nitrophenol (ring-D_4,98%)**	$O_2NC_6D_4OH$	Neat	0.25 g
NEW	DLM-7982-S	***N*-Nitrosodiethylamine (D_{10},98%)**	$(C_2D_5)_2NNO$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	ULM-7984-1.2	***N*-Nitrosodiethylamine (unlabeled)**	$(C_2H_5)_2NNO$	1 mg/mL in Methylene chloride	1.2 mL
	CDLM-7279-S	***N*-Nitrosodimethylamine ($^{13}C_2$,99%;D_6,98%)**	$*C_2D_6NNO$	1 mg/mL in Methylene chloride-D_2	1 mL
NEW	NLM-7647-S	***N*-Nitrosodimethylamine ($^{15}N_2$,98%)**	$C_2H_6{*}NNO$	1 mg/mL in Methylene chloride	1 mL
	DLM-2130-S	***N*-Nitrosodimethylamine (2,2',4,4',6,6'-D_6,98%)**	C_2D_6NNO	1 mg/mL in Methylene chloride-D_2	1 mL
	DLM-3098-S	***N*-Nitrosodiphenylamine (2,2',4,4',6,6'-D_6,98%)**	$(C_6D_3H_2)_2NN{=}O$	1 mg/mL in Methylene chloride-D_2	1 mL
	DLM-3098-0.01	***N*-Nitrosodiphenylamine (2,2',4,4',6,6'-D_6,98%)**	$(C_6D_3H_2)_2NN{=}O$	Neat	0.01 g
NEW	ULM-7219-1.2	***N*-Nitrosodiphenylamine (unlabeled)**	$(C_6H_5)_2NN{=}O$	1 mg/mL in Methylene chloride	1.2 mL

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	Catalog #	Compound	Formula	Concentration	Amount
	DLM-2131-S	***N*-Nitrosodi-*n*-propylamine (D_{14},98%)**	$C_6D_{14}N_2O$	1 mg/mL in Methylene chloride-D_2	1 mL
	DLM-2131-0.05	***N*-Nitrosodi-*n*-propylamine (D_{14},98%)**	$C_6D_{14}N_2O$	Neat	0.05 g
	ULM-6637-S	***N*-Nitrosodi-*n*-propylamine (unlabeled)**	$C_6H_4N_2O$	1 mg/mL in Methylene chloride	1.2 mL
NEW	DLM-8254-1.2	***N*-Nitrosomorpholine (D_8,98%)**	$CD_8N_2O_2$	1 mg/mL in Methylene chloride-D_2	1.2 mL
NEW	ULM-8255-1.2	***N*-Nitrosomorpholine (unlabeled)** (CP: 96%)	$CH_8N_2O_2$	1 mg/mL in Methylene chloride	1.2 mL
NEW	DLM-8252-1.2	***N*-Nitrosopyrrolidine (D_8,98%)**	$C_4D_8N_2O$	1 mg/mL in Methylene chloride-D_2	1.2 mL
NEW	ULM-8253-1.2	***N*-Nitrosopyrrolidine (unlabeled)**	$C_4H_8N_2O$	1 mg/mL in Methylene chloride	1.2 mL
NEW	ULM-2323-4X25	***n*-Nonane (unlabeled)**	$CH_3(CH_2)_7CH_3$	Neat	4 x 25 mL
	CLM-6680-1.2	**Octachlorostyrene ($^{13}C_8$,99%)**	$*C_6Cl_5*CCl=*CCl_2$	100 µg/mL in Isooctane	1.2 mL
	ULM-1709-1.2	**Octachlorostyrene (unlabeled)**	$C_6Cl_5CCl=CCl_2$	100 µg/mL in Isooctane	1.2 mL
NEW	CLM-7930-1.2	**Parlar 26 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{10}Cl_8$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7828-1.2	**Parlar 26 (unlabeled)**	$C_{10}H_{10}Cl_8$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8705-1.2	**Parlar 32 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8665-1.2	**Parlar 32 (unlabeled)**	$C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8719-1.2	**Parlar 39 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8767-1.2	**Parlar 39 (unlabeled)**	$C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-7931-1.2	**Parlar 50 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7829-1.2	**Parlar 50 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-7932-1.2	**Parlar 62 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7830-1.2	**Parlar 62 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8720-1.2	**Parlar 69 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8768-1.2	**Parlar 69 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8721-1.2	**Parlar 70 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8769-1.2	**Parlar 70 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
	CLM-2050-1.2	**Pentachlorobenzene ($^{13}C_6$,99%)**	$*C_6HCl_5$	100 µg/mL in Isooctane	1.2 mL
	CLM-1955-1.2	**Pentachloronitrobenzene ($^{13}C_6$,99%)**	$*C_6Cl_5NO_2$	100 µg/mL in Nonane	1.2 mL
	CLM-661-1.2	**Pentachlorophenol ($^{13}C_6$,99%)**	$*C_6Cl_5OH$	100 µg/mL in Nonane	1.2 mL
	CLM-661-0.01	**Pentachlorophenol ($^{13}C_6$,99%)**	$*C_6Cl_5OH$	Neat	0.01 g
	ULM-6894-1.2	**Pentachlorophenol (unlabeled)**	C_6Cl_5OH	100 µg/mL in Nonane	1.2 mL
	OLM-7310-1.2	**Perchloric acid, sodium salt ($^{18}O_4$,90%+)**	$Cl^{18}O_4{\cdot}Na$	100 µg/mL in Water	1.2 mL
	ULM-7312-1.2	**Perchloric acid, sodium salt (unlabeled)**	$ClO_4{\cdot}Na$	100 µg/mL in Water	1.2 mL
	CLM-2451-1.2	**Phenanthrene ($^{13}C_6$,99%)**	$*C_6C_8H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-371-1.2	**Phenanthrene (D_{10},98%)**	$C_{14}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-371-0.1	**Phenanthrene (D_{10},98%)**	$C_{14}D_{10}$	Neat	0.1 g
	DLM-371-1	**Phenanthrene (D_{10},98%)**	$C_{14}D_{10}$	Neat	1 g
	ULM-7427-1.2	**Phenanthrene (unlabeled)**	$C_{14}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	CLM-216-0.1	**Phenol ($^{13}C_6$,99%)**	$*C_6H_5OH$	Neat	0.1 g
	DLM-695-1	**Phenol (ring-D_5,98%)**	C_6D_5OH	Neat	1 g
	DLM-695-5	**Phenol (ring-D_5,98%)**	C_6D_5OH	Neat	5 g
	DLM-370-5	**Phenol (D_6,98%)**	C_6D_5OD	Neat	5 g
	DLM-3039	**Phenylbutazone (diphenyl-D_{10},98%)**	$C_{19}D_{10}H_{10}N_2O_2$		Inquire
NEW	ULM-7378	**Phenylbutazone (unlabeled)**	$C_{19}H_{20}N_2O_2$		Inquire
	CLM-3733-1.2	***o*-Phenylphenol ($^{13}C_6$,99%)**	$C_6H_5C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	ULM-7396-1.2	***o*-Phenylphenol (unlabeled)**	$C_{12}H_9OH$	100 µg/mL in Nonane	1.2 mL
	CLM-3748-1.2	***p*-Phenylphenol ($^{13}C_6$,99%)** (CP: 96%)	$*C_6H_5C_6H_4OH$	100 µg/mL in Nonane	1.2 mL
	CLM-3040-0.5	**Phthalic acid (carboxyl-^{13}C,99%)**	$C_6H_4(*CO_2H)CO_2H$	Neat	0.5 g
	DLM-787-5	**Phthalic acid (ring-D_4,98%)**	$C_6D_4(CO_2H)_2$	Neat	5 g
	DLM-1293-0.1	**2-Picoline (2-methylpyridine) (D_7,98%)**	$C_5D_4NCD_3$	Neat	0.1 g
	DLM-1293-1	**2-Picoline (2-methylpyridine) (D_7,98%)**	$C_5D_4NCD_3$	Neat	1 g
	DLM-1541-1	**3-Picoline (3-methylpyridine) (D_7,98%)**	$C_5D_4NCD_3$	Neat	1 g
	DLM-1294-1	**4-Picoline (4-methylpyridine) (D_7,98%)**	$C_5D_4NCD_3$	Neat	1 g
	DLM-1067-5	**1,2-Propylene oxide (D_6,98%) ****	CD_3CDCD_2O	Neat	5 g

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	Catalog #	Compound	Formula	Concentration	Amount
	CLM-3601-1.2	**Pyrene ($^{13}C_3$,99%)**	$^*C_3C_{13}H_{10}$	100 µg/mL in Nonane	1.2 mL
	DLM-155-1.2	**Pyrene (D_{10},98%)**	$C_{16}D_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-155-0.1	**Pyrene (D_{10},98%)**	$C_{16}D_{10}$	Neat	0.1 g
	DLM-155-0.5	**Pyrene (D_{10},98%)**	$C_{16}D_{10}$	Neat	0.5 g
	ULM-7417-1.2	**Pyrene (unlabeled)**	$C_{16}H_{10}$	200 µg/mL in Isooctane	1.2 mL
	DLM-1158-0.1	**Quinoline (D_7,98%)**	C_9D_7N	Neat	0.1 g
	DLM-1158-1	**Quinoline (D_7,98%)**	C_9D_7N	Neat	1 g
	DLM-3322-0.5	***trans*-Stilbene (D_{12},98%)**	$C_6D_5CD{=}CDC_6D_5$	Neat	0.5 g
	DLM-1083-5	**Styrene (stabilized with BHT) (vinyl-D_3,98%)**	$C_6H_5CD{=}CD_2$	Neat	5 g
	DLM-809-5	**Styrene (stabilized with BHT) (ring-D_5,98%)**	$C_6D_5CH{=}CH_2$	Neat	5 g
	DLM-380-1.2	**Styrene (stabilized with BHT) (D_8,98%)**	$C_6D_5CD{=}CD_2$	100 µg/mL in Nonane	1.2 mL
	DLM-380-1	**Styrene (stabilized with BHT) (D_8,98%)**	$C_6D_5CD{=}CD_2$	Neat	1 g
	DLM-380-5	**Styrene (stabilized with BHT) (D_8,98%)**	$C_6D_5CD{=}CD_2$	Neat	5 g
	DLM-1088-1	**Terephthalic acid (ring-D_4,98%)**	$C_6D_4(CO_2H)_2$	Neat	1 g
	DLM-1088-5	**Terephthalic acid (ring-D_4,98%)**	$C_6D_4(CO_2H)_2$	Neat	5 g
	DLM-450-1	***o*-Terphenyl (D_{14},98%)**	$C_{18}D_{14}$	Neat	1 g
	DLM-450-5	***o*-Terphenyl (D_{14},98%)**	$C_{18}D_{14}$	Neat	5 g
	DLM-382-1.2	***p*-Terphenyl (D_{14},98%)**	$C_{18}D_{14}$	200 µg/mL in Isooctane	1.2 mL
	DLM-382-1	***p*-Terphenyl (D_{14},98%)**	$C_{18}D_{14}$	Neat	1 g
	DLM-382-5	***p*-Terphenyl (D_{14},98%)**	$C_{18}D_{14}$	Neat	5 g
NEW	ULM-7428-1.2	***p*-Terphenyl (unlabeled)**	$C_{18}H_{14}$	200 µg/mL in Isooctane	1.2 mL
	DLM-2279-0.1	**α-Terpineol (propyl methyl-D_3,98%)**	$CD_3C_6H_7C_3H_7OH$	Neat	0.1 g
	DLM-2279-0.5	**α-Terpineol (propyl methyl-D_3,98%)**	$CD_3C_6H_7C_3H_7OH$	Neat	0.5 g
	CLM-585-5	**1,2,4,5-Tetrachlorobenzene ($^{13}C_6$,99%)**	$^*C_6H_2Cl_4$	Neat	5 mg
	CLM-585-0.1	**1,2,4,5-Tetrachlorobenzene ($^{13}C_6$,99%)**	$^*C_6H_2Cl_4$	Neat	0.1 g
	DLM-1177-1	**1,2,4,5-Tetrachlorobenzene (D_2,98%)**	$C_6D_2Cl_4$	Neat	1 g
	DLM-1177-5	**1,2,4,5-Tetrachlorobenzene (D_2,98%)**	$C_6D_2Cl_4$	Neat	5 g
	ULM-1704-0.1	**3,4,5,6-Tetrachlorocatechol (unlabeled)**	$Cl_4C_6(OH)_2$	Neat	0.1 g
	ED-900	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin ($^{13}C_{12}$,99%)**	$^*C_{12}H_4Cl_4O_2$	50 µg/mL in Nonane	1.2 mL
	ED-901	**2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (unlabeled)**	$C_{12}H_4Cl_4O_2$	50 µg/mL in Nonane	4x1.2mL
	DLM-35-5	**1,1,2,2-Tetrachloroethane (D_2,99.6%)**	$Cl_2CDCDCl_2$	Neat	5 g
	CLM-1965-0.1	**Tetrachloroethylene ($^{13}C_2$,99%)**	$Cl_2{}^*C{=}{}^*CCl_2$	Neat	0.1 g
	ULM-1708-0.1	**3,4,5,6-Tetrachloroguaiacol (unlabeled)**	$Cl_4C_6(OH)(OCH_3)$	Neat	0.1g
	ULM-2428-0.1	**2,3,4,5-Tetrachlorophenol (unlabeled)**	C_6HCl_4OH	Neat	0.1 g
	ULM-2429-0.1	**2,3,4,6-Tetrachlorophenol (unlabeled)**	C_6HCl_4OH	Neat	0.1 g
	ULM-2430-0.1	**2,3,5,6-Tetrachlorophenol (unlabeled)**	C_6HCl_4OH	Neat	0.1 g
	DLM-2053-0.1	***cis*-1,2,3,6-Tetrahydrophthalic anhydride (3,3,4,5,6,6-D_6,98%)**	$C_8D_6H_2O_3$	Neat	0.1 g
	DLM-2054-0.1	***cis*-1,2,3,6-Tetrahydrophthalimide (3,3,4,5,6,6-D_6,98%)**	$C_8D_6H_3NO_2$	Neat	0.1 g
NEW	CLM-6069-0.1	**Toluene (ring-$^{13}C_6$,99%)**	$^*C_6H_5CH_3$	Neat	0.1 g
	CLM-309-0.5	**Toluene (methyl-^{13}C,99%)**	$C_6H_5{}^*CH_3$	Neat	0.5 g
	CLM-309-1	**Toluene (methyl-^{13}C,99%)**	$C_6H_5{}^*CH_3$	Neat	1 g
	DLM-1175-1	**Toluene (methyl-D_3,98%)**	$C_6H_5CD_3$	Neat	1 g
	DLM-1175-5	**Toluene (methyl-D_3,98%)**	$C_6H_5CD_3$	Neat	5 g
	DLM-1176-1	**Toluene (ring-D_5,98%)**	$C_6H_5CD_3$	Neat	1 g
	DLM-1176-5	**Toluene (ring-D_5,98%)**	$C_6H_5CD_3$	Neat	5 g
	DLM-5-5	**Toluene (D_8,99.5%)**	$C_6H_5CD_3$	Neat	5 g
NEW	DLM-7136-1.2	**Tributyltin chloride (D_{27},98%)**	$C_{12}D_{27}ClSn$	100 µg/mL in Methylene chloride-D_2	1.2 mL
NEW	ULM-8061-1.2	**Tributyltin chloride (unlabeled)**	$C_{12}H_{27}ClSn$	100 µg/mL in Methylene chloride	1.2 mL

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	Catalog #	Compound	Formula	Concentration	Amount
NEW	DLM-6083-1.2	**2,4,6-Trichloroanisole (D_5,98%)**	$C_6D_2Cl_3OCD_3$	1 mg/mL in Methanol-D	1.2 mL
	DLM-6083-0.1	**2,4,6-Trichloroanisole (D_5,98%)**	$C_7Cl_3D_5O$	Neat	0.1 g
NEW	ULM-7999-1.2	**2,4,6-Trichloroanisole (unlabeled)**	$C_6H_2Cl_3OCH_3$	1 mg/mL in Methanol	1.2 mL
	DLM-1972-0.1	**1,2,3-Trichlorobenzene (D_3,98%)**	$C_6D_3Cl_3$	Neat	0.1 g
	DLM-1178-0.1	**1,2,4-Trichlorobenzene (D_3,98%)**	$C_6D_3Cl_3$	Neat	0.1 g
	DLM-1178-1	**1,2,4-Trichlorobenzene (D_3,98%)**	$C_6D_3Cl_3$	Neat	1 g
	DLM-1178-5	**1,2,4-Trichlorobenzene (D_3,98%)**	$C_6D_3Cl_3$	Neat	5 g
	DLM-799-1	**1,3,5-Trichlorobenzene (D_3,98%)**	$C_6D_3Cl_3$	Neat	1 g
	ULM-1703-0.1	**3,4,5-Trichlorocatechol (unlabeled)** (CP: 95-99%)	$Cl_3C_6H(OH)_2$	Neat	0.1 g
	DLM-1974-0.1	**1,1,1-Trichloroethane (D_3,98%)**	CD_3CCl_3	Neat	0.1 g
	DLM-1974-1	**1,1,1-Trichloroethane (D_3,98%)**	CD_3CCl_3	Neat	1 g
	CLM-2075-0.1	**1,1,2-Trichloroethane ($^{13}C_2$,99%)**	Cl_2*CH*CH_2Cl	Neat	0.1 g
	DLM-1975-0.1	**1,1,2-Trichloroethane (1,2,2-D_3,98%)**	Cl_2CDCD_2Cl	Neat	0.1 g
	DLM-1975-0.5	**1,1,2-Trichloroethane (1,2,2-D_3,98%)**	Cl_2CDCD_2Cl	Neat	0.5 g
	CLM-129-0.1	**Trichloroethylene ($^{13}C_2$,99%) (stabilized with diisopropylamine)**	Cl_2*C=*CHCl	Neat	0.1 g
	DLM-3049-1	**Trichloroethylene (D,98%)**	Cl_2C=CDCl	Neat	1 g
	CLM-513-1	**2,4,5-Trichlorophenol ($^{13}C_6$,99%)**	*$C_6H_2Cl_3OH$	100 µg/mL in Methanol	1 mL
	DLM-2143-0.1	**2,4,5-Trichlorophenol (ring-D_2,98%)**	$C_6D_2Cl_3OH$	Neat	0.1 g
	CLM-1804-1	**2,4,6-Trichlorophenol ($^{13}C_6$,99%)**	*$C_6H_2Cl_3OH$	100 µg/mL in Methanol	1 mL
	DLM-3093-0.01	**2,4,6-Trichlorophenol (ring-D_2,98%)**	$C_6D_2Cl_3OH$	Neat	0.01 g
	DLM-3093-0.1	**2,4,6-Trichlorophenol (ring-D_2,98%)**	$C_6D_2Cl_3OH$	Neat	0.1 g
	DLM-2080-0.1	**1,2,3-Trichloropropane (D_5,98%)** (CP: 95%)	$CD_2ClCDClCD_2Cl$	Neat	0.1 g
NEW	DLM-7663	**Triethanolamine (D_{15},98%)** (CP: 97% – contains 2-Amino-1-propanol)	$(DOCD_2CD_2)_3N$		Inquire
	DLM-3344-5	**Vinyl bromide (D_3,98%) ** (inhibited with Hydroquinone)**	CD_2=CDBr	Neat	5 g
	DLM-167-5	**Vinyl chloride (D_3,98%) ** (inhibited with Hydroquinone)**	CD_2=CDCl	Neat	5 g
	DLM-167-1.2	**Vinyl chloride (D_3,98%)**	CD_2=CDCl	50 µg/mL in Methanol-OD	1.2 mL
	DLM-808-5	***o*-Xylene (D_{10},98%)**	$C_6D_4(CD_3)_2$	Neat	5 g
	DLM-2398-5	***m*-Xylene (D_{10},98%)**	$C_6D_4(CD_3)_2$	Neat	5 g
	DLM-313-5	***p*-Xylene (D_{10},98%)**	$C_6D_4(CD_3)_2$	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 ^{13}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	**Aldrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7441-1.2	**Aldrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8087-1.2	***cis*-Chlordane (α) ($^{13}C_{10}$,99%)**	*$C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2419-25	***cis*-Chlordane (α) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
	CLM-4792-1.2	***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	*$C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2420-1.2	***trans*-Chlordane (γ) (unlabeled)**	$C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-4814-1.2	**Chlordecone (Kepone) ($^{13}C_{10}$,99%)**	*$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-2301-1.2	**Chlordecone (Kepone) (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	CLM-4758-1.2	**Chlordene ($^{13}C_{10}$,99%)**	*$C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7443-1.2	**Chlordene (unlabeled)**	$C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-4726-1.2	**Dieldrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7230-1.2	**Dieldrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	CLM-6025-1.2	**Endosulfan I ($^{13}C_9$,99%)**	*$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	DLM-2862-1.2	**Endosulfan I (D_4,97%)**	$C_9D_4H_2Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7447-1.2	**Endosulfan I (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	CLM-6026-1.2	**Endosulfan II ($^{13}C_9$,99%)**	*$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7448-1.2	**Endosulfan II (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-7531-1.2	**Endosulfan sulfate ($^{13}C_9$,99%)**	*$C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7990-1.2	**Endosulfan sulfate (unlabeled)**	$C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
	CLM-4782-1.2	**Endrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7444-1.2	**Endrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	CLM-4815-50	**Endrin aldehyde ($^{13}C_{12}$,99%)**	*$C_{10}C_2H_{10}Cl_6O$	Neat	50 µg
	CLM-4816-50	**Endrin ketone ($^{13}C_{12}$,99%)**	*$C_{10}C_2H_8Cl_6O$	Neat	50 µg
	CLM-4759-1.2	**Heptachlor ($^{13}C_{10}$,99%)**	*$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-1.2	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	CLM-4734-1.2	***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	*$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-1.2	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7869-1.2	***trans*-Heptachlor epoxide (A isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	CLM-4727-1.2	**Isodrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7442-1.2	**Isodrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-4814-1.2	**Kepone (Chlordecone) ($^{13}C_{10}$,99%)**	*$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	ULM-2301-1.2	**Kepone (Chlordecone) (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	CLM-4813-1.2	**Mirex ($^{13}C_{10}$,99%)**	*$C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
	ULM-2427-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
	ULM-2427-SM-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Methanol	1.2 mL
	CLM-4811-1.2	***cis*-Nonachlor ($^{13}C_{10}$,99%)**	*$C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	ULM-7445-1.2	***cis*-Nonachlor (unlabeled)**	$C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	CLM-4735-1.2	***trans*-Nonachlor ($^{13}C_{10}$,99%)**	*$C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	ULM-7229-1.2	***trans*-Nonachlor (unlabeled)**	$C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	CLM-4729-1.2	**Oxychlordane ($^{13}C_{10}$,99%)**	*$C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-SM-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	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	**Aldrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7441-1.2	**Aldrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-2482-1.2	**α-BHC (α-HCH) ($^{13}C_6$,99%)**	*$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7232-1.2	**α-BHC (α-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-3623-1.2	**β-BHC (β-HCH) ($^{13}C_6$,99%)**	*$C_6H_6Cl_6$	50 µg/mL in Nonane	2 x 1.2 mL
	ULM-6132-1.2	**β-BHC (β-HCH) (unlabeled)**	$C_6H_6Cl_6$	50 µg/mL in Nonane	2 x 1.2 mL
	ULM-6132-SM-1.2	**β-BHC (β-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Methanol	1.2 mL
	CDLM-624-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%;D_6,99%)**	*$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-1282-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%)**	*$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6133-1.2	**γ-BHC (γ-HCH) (Lindane) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6133-SM-1.2	**γ-BHC (γ-HCH) (Lindane) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Methanol	1.2 mL
	CLM-3648-1.2	**δ-BHC (δ-HCH) ($^{13}C_6$,99%)**	*$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7233-1.2	**δ-BHC (δ-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8087-1.2	***cis*-Chlordane (α) ($^{13}C_{10}$,99%)**	*$C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2419-25	***cis*-Chlordane (α) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
	CLM-4792-1.2	***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	*$C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2420-25	***trans*-Chlordane (γ) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
NEW	CLM-4814-1.2	**Chlordecone (Kepone) ($^{13}C_{10}$,99%)**	*$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-2301-1.2	**Chlordecone (Kepone) (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-2301-0.1	**Chlordecone (Kepone) (unlabeled)**	$C_{10}Cl_{10}O$	Neat	0.1 g
	CLM-4758-1.2	**Chlordene ($^{13}C_{10}$,99%)**	*$C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7443-1.2	**Chlordene (unlabeled)**	$C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-6999-1.2	**2,4′-DDD (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	*$C_{12}C_2H_{10}Cl_4$	50 µg/mL in Nonane	1.2 mL
	ULM-7450-1.2	**2,4′-DDD (unlabeled) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}H_{10}Cl_4$	50 µg/mL in Nonane	1.2 mL
	CLM-7100-1.2	**4,4′-DDD (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	*$C_{12}C_2H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL
	DLM-3533-1.2	**4,4′-DDD (ring-D_8,98%) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}D_8H_2Cl_4$	100 µg/mL in Nonane	1.2 mL
	ULM-7216-1.2	**4,4′-DDD (unlabeled) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL
	CLM-4693-1.2	**2,4′-DDE (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl*C_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6251-1.2	**2,4′-DDE (unlabeled) [(*o,p*′-Dichlorodiphenyl) dichloroethylene]**	$C_{14}H_8Cl_4$	100 µg/mL in Nonane	1.2 mL
	CLM-1627-1.2	**4,4′-DDE (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl*C_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	CLM-1627-5	**4,4′-DDE (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl*C_6H_4)_2C{=}CCl_2$	Neat	5 mg
	ULM-6137-1.2	**4,4′-DDE (unlabeled) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(ClC_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4692-1.2	**2,4′-DDT (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
	ULM-6134-1.2	**2,4′-DDT (unlabeled) [(*o,p*′-Dichlorodiphenyl) trichloroethane]**	$ClC_6H_4CH(CCl_3)C_6H_4Cl$	100 µg/mL in Nonane	1.2 mL
	CLM-1281-1.2	**4,4′-DDT (ring-$^{13}C_{12}$,99%) [(p,p′-Dichlorodiphenyl) trichloroethane]**	$(Cl*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
	CLM-1281-5	**4,4′-DDT (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl*C_6H_4)_2CHCCl_3$	Neat	5 mg
	ULM-6135-1.2	**4,4′-DDT (unlabeled) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(ClC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL

Organochlorine (OC) Pesticide and Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-816-1.2	**2,6-Dichloro-4-nitroaniline (Dicloran) (ring-$^{13}C_6$,99%)**	$Cl_2{}^*C_6H_2(NO_2)NH_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4726-1.2	**Dieldrin ($^{13}C_{12}$,99%)**	$^*C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7230-1.2	**Dieldrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	CLM-6025-1.2	**Endosulfan I ($^{13}C_9$,99%)**	$^*C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	DLM-2862-1.2	**Endosulfan I (D_4,97%)**	$C_9D_4H_2Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7447-1.2	**Endosulfan I (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	CLM-6026-1.2	**Endosulfan II ($^{13}C_9$,99%)**	$^*C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7448-1.2	**Endosulfan II (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-7531-1.2	**Endosulfan sulfate ($^{13}C_9$,99%)**	$^*C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7990-1.2	**Endosulfan sulfate (unlabeled)**	$C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
	CLM-4782-1.2	**Endrin ($^{13}C_{12}$,99%)**	$^*C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7444-1.2	**Endrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	CLM-4815-50	**Endrin aldehyde ($^{13}C_{12}$,99%)**	$^*C_{10}C_2H_{10}Cl_6O$	Neat	50 µg
	CLM-4816-50	**Endrin ketone ($^{13}C_{12}$,99%)**	$^*C_{10}C_2H_8Cl_6O$	Neat	50 µg
	CLM-4759-1.2	**Heptachlor ($^{13}C_{10}$,99%)**	$^*C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-1.2	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-0.1	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	Neat	0.1 g
	CLM-4734-1.2	***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	$^*C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-1.2	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-0.1	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	Neat	0.1 g
NEW	ULM-7869-1.2	***trans*-Heptachlor epoxide (A isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	CLM-351-1.2	**Hexachlorobenzene ($^{13}C_6$,99%)**	$^*C_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6130-1.2	**Hexachlorobenzene (unlabeled)**	C_6Cl_6	100 µg/mL in Nonane	1.2 mL
	CLM-4727-1.2	**Isodrin ($^{13}C_{12}$,99%)**	$^*C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7442-1.2	**Isodrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-4814-1.2	**Kepone (Chlordecone) ($^{13}C_{10}$,99%)**	$^*C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	ULM-2301-1.2	**Kepone (Chlordecone) (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	ULM-2301-0.1	**Kepone (Chlordecone) (unlabeled)**	$C_{10}Cl_{10}O$	Neat	0.1 g
	CLM-4683-1.2	**Methoxychlor (ring-$^{13}C_{12}$,99%)**	$(^*C_6OC)_2C_2Cl_3$	100 µg/mL in Nonane	1.2 mL
	ULM-7440-1.2	**Methoxychlor (unlabeled)**	$(CH_3OC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
	CLM-4813-1.2	**Mirex ($^{13}C_{10}$,99%)**	$^*C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
	CLM-2078-1	**Mirex ($^{13}C_8$,99%)**	$^*C_8C_2Cl_{12}$	100 µg/mL in Toluene	1 mL
	ULM-2427-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
	ULM-2427-SM-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Methanol	1.2 mL
	ULM-2427-0.1	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	Neat	0.1 g
	CLM-4811-1.2	***cis*-Nonachlor ($^{13}C_{10}$,99%)**	$^*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	ULM-7445-1.2	***cis*-Nonachlor (unlabeled)**	$^*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	CLM-4735-1.2	***trans*-Nonachlor ($^{13}C_{10}$,99%)**	$^*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	ULM-7229-1.2	***trans*-Nonachlor (unlabeled)**	$^*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	CLM-4729-1.2	**Oxychlordane ($^{13}C_{10}$,99%)**	$^*C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-SM-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	100 µg/mL in Methanol	1.2 mL

Organophosphate (OP) Pesticide and Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
	DLM-6000-1.2	**Acephate (D_6,98%)**	$C_4D_6H_4NO_3PS$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-7263-1.2	**Acephate (unlabeled)**	$C_4H_{10}NO_3PS$	100 µg/mL in Acetonitrile	1.2 mL
	CDNLM-6786-1.2	**Aminomethylphosphonic acid (AMPA) (^{13}C,99%;^{15}N,98%, methylene-D_2,98%)**	$*CH_4D_2*NO_3P$	100 µg/mL in H_2O	1.2 mL
NEW	DLM-7152	**Bensulide (isopropoxy-D_{14},98%)**	$C_{14}D_{14}H_{10}NO_4PS_3$		Inquire
	DLM-4360-1.2	**Chlorpyrifos (diethyl-D_{10},99%)**	$C_9D_{10}HCl_3NO_3PS$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7489-1.2	**Chlorpyrifos (unlabeled)**	$C_9H_{11}Cl_3NO_3PS$	100 µg/mL in Nonane	1.2 mL
NEW	DLM-7153	**Chlorpyrifos methyl (dimethyl-D_6,98%)**	$C_7HCl_3D_6NO_3PS$		Inquire
	ERC-034	**Cyclohexyl methylphosphonic acid (unlabeled)**	$C_7H_{15}O_3P$	1000 µg/mL in Methanol	1.2 mL
	DLM-1148-1.2	**Diazinon (diethyl-D_{10},98%)**	$C_{12}H_{11}D_{10}N_2O_3PS$	100 µg/mL in Nonane	1.2 mL
	ULM-6575-S-10X-1.2	**Diazinon (unlabeled)**	$C_{12}H_{21}N_2O_3PS$	1000 µg/mL in Nonane	1.2 mL
	DLM-2829-0.01	**Dichlorvos (dimethyl-D_6,98%)**	$C_4D_6HCl_2O_4P$	Neat	10 mg
	ULM-7217-1.2	**Dichlorvos (unlabeled)**	$(H_3CO)_2POOCH{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	ERD-117	***O,O*-Diethyl dithiophosphate, potassium salt (unlabeled)**	$C_4H_{11}KO_2PS_2$	1000 µg/mL in Methanol	1.2 mL
NEW	ERD-155	***O,O*-Dimethyl dithiophosphate, sodium salt (unlabeled)**	$C_2H_6NaO_2PS_2$	1000 µg/mL in Methanol	1.2 mL
	ERD-118	**Diethyl phosphate (unlabeled)**	$C_4H_{10}O_4P$	1000 µg/mL in Methanol	1.2 mL
	DLM-4852-1.2	***O,O*-Diethyl thiophosphate, potassium salt (diethyl-D_{10},98%)**	$C_4D_{10}KO_3PS$	100 µg/mL in Methanol	1.2 mL
	ERD-119	***O,O*-Diethyl thiophosphate, potassium salt (unlabeled)**	$C_4H_{11}KO_3PS$	1000 µg/mL in Methanol	1.2 mL
	ERD-086	**Diisopropyl methylphosphonate (D_{14},98%)**	$C_7H_3D_{14}O_3P$	1000 µg/mL in Methanol	1.2 mL
	ERD-083	**Diisopropyl methylphosphonate (unlabeled)**	$C_7H_{17}O_3P$	1000 µg/mL in Methanol	1.2 mL
NEW	DLM-7151-1.2	**Dimethoate (*O,O*-dimethyl-D_6,98%)**	$C_5D_6H_6NO_3PS_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7972-1.2	**Dimethoate (unlabeled)**	$C_5H_{12}NO_3PS_2$	100 µg/mL in Acetonitrile	1.2 mL
	ERD-121	**Dimethyl phosphate (unlabeled)**	$(CH_3O)_2P(O)OH$	1000 µg/mL in Methanol	1.2 mL
	ULM-4617-1.2	***O,O*-Dimethyl thiophosphate (unlabeled)**	$C_2H_6NaO_3PS$	1000 µg/mL in Methanol	1.2 mL
	ULM-6089	***O,S*-Dimethyl thiophosphate, sodium salt (unlabeled)**	$C_2H_6NaO_3PS$		Inquire
NEW	DLM-7183	**Disulfoton (*O,O*-diethyl-D_{10},98%)**	$C_8D_{10}H_9O_2PS_3$		Inquire
	CLM-6090	**Ethyl dimethylamidophosphate, sodium salt ($^{13}C_4$,99%)**	$*C_4H_{11}NPO_3Na$		Inquire
	ULM-6091-1.2	**Ethyl dimethylamidophosphate, sodium salt (unlabeled)**	$C_4H_{11}NO_3PNa$	1000 µg/mL in Methanol	1.2 mL
	DLM-6098-1.2	**Ethyl methylphosphonate (ethyl-D_5,98%)**	$C_3H_4D_5O_3P$	100 µg/mL in Methanol	1.2 mL
	ERE-024	**Ethyl methylphosphonic acid (unlabeled)**	$C_3H_9O_3P$	1000 µg/mL in Methanol	1.2 mL
	DLM-2878-0.01	**Fenitrothion (*O,O*-dimethyl-D_6,98%)**	$C_9D_6H_6NO_5PS$	Neat	10 mg
	CLM-4545-1.2	**Fonofos (ring-$^{13}C_6$,99%)**	$*C_6C_4H_{15}OPS_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6694-1.2	**Fonofos (unlabeled)**	$CH_2CH_3P(S)(OCH_2CH_3)(SC_6H_5)$	100 µg/mL in Nonane	1.2 mL
	CNLM-4666-1.2	**Glyphosate (2-^{13}C,99%;^{15}N,98+%)**	$HOO*CCH_2*NHCH_2PO(OH)_2$	100 µg/mL in Water	1.2 mL
NEW	CNLM-4666-10	**Glyphosate (2-^{13}C,99%;^{15}N,98+%)**	$HOO*CCH_2*NHCH_2PO(OH)_2$	100 µg/mL in Water	10 mL
	ULM-6876-1.2	**Glyphosate (unlabeled)**	$HOOCCH_2NHCH_2PO(OH)_2$	100 µg/mL in Water	1.2 mL

Organophosphate (OP) Pesticide and Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	ERI-026	**Isobutyl hydrogen methylphosphonate (unlabeled)**	$C_5H_{13}O_3P$	1000 µg/mL in Methanol	1.2 mL
	ERI-015	**Isopropyl methylphosphonic acid (unlabeled)**	$C_4H_{11}O_3P$	1000 µg/mL in Methanol	1.2 mL
	DLM-4476-1.2	**Malathion (D_{10},99%)**	$C_{10}D_{10}H_9O_6PS_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8122-1.2	**Malathion (unlabeled)**	$C_{10}H_{15}O_6PS_2$	100 µg/mL in Nonane	1.2 mL
NEW	DLM-7149	**Methamidophos (dimethyl-D_6,98%)**	$C_2D_6H_2NO_2PS$		Inquire
	DLM-6196-1.2	**Methylphosphonic acid (methyl-D_3, 98%)**	$CD_3H_2O_3P$	100 µg/mL in Methanol	1.2 mL
	CDLM-6100-1.2	**Methylphosphonic acid (^{13}C,99%;methyl-D_3,98%)**	$*CD_3H_2O_3P$	100 µg/mL in Methanol	1.2 mL
	ERM-038	**Methylphosphonic acid (unlabeled)**	$CH_3P(O)(OH)_2$	1000 µg/mL in Methanol	1.2 mL
NEW	DLM-7150-1.2	**Oxydemeton methyl (*O,O*-dimethyl-D_6,98%)**	$C_6D_6H_9O_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8579-1.2	**Oxydemeton methyl (unlabeled)**	$C_6H_{15}O_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-2970-1.2	**Parathion (diethyl-D_{10},98%)**	$NO_2(C_6H_4)OP(=S)(OC_2D_5)_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8144-1.2	**Parathion (unlabeled)**	$NO_2(C_6H_4)OP(=S)(OC_2H_5)_2$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-4544-1.2	**Phorate (diethoxy-$^{13}C_4$,99%)**	$(*C_2H_5O)_2P(S)SCH_2SC_2H_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7567-1.2	**Phorate (unlabeled)**	$(C_2H_5O)_2P(S)SCH_2SC_2H_5$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-4667-1.2	**Phosmet (dimethyl-D_6,98%)**	$C_{11}D_6H_6NO_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8454-1.2	**Phosmet (unlabeled)**	$C_{11}H_{12}NO_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
	ERP-083	**Pinacolyl methylphosphonic acid (unlabeled)**	$C_7H_{17}O_3P$	1000 µg/mL in Methanol	1.2 mL
	CLM-4543	**Terbufos (diethoxy-$^{13}C_4$,99%)**	$C(CH_3)_3SCH_2SP(S)(O*CH_2*CH_3)_2$		Inquire
	CLM-6620-1.2	**1,2,2-Trimethylpropyl hydrogen methylphosphonate (trimethylpropyl-$^{13}C_6$,99%)**	$*C_6CH_{17}O_3P$	100 µg/mL in Methanol	1.2 mL

Carbamate Pesticide and Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-7140	**Bendiocarb ($^{13}C_3$,99%)**	*$C_3C_8H_{13}NO_4$		Inquire
NEW	ULM-8638	**Bendiocarb (unlabeled)**	$C_{11}H_{13}NO_4$		Inquire
	CLM-4682-1.2	**Carbaryl (ring-$^{13}C_6$,99%)**	*$C_6C_6H_{11}NO_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8096-1.2	**Carbaryl (unlabeled)**	$C_{10}H_7CO_2NHCH_3$	100 µg/mL in Nonane	1.2 mL
	CLM-1911-1.2	**Carbofuran (ring-$^{13}C_6$,99%)**	*$C_6C_6H_{15}NO_3$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	ULM-7419-1.2	**Carbofuran (unlabeled)**	$C_{12}H_{15}NO_3$	100 µg/mL in *p*-Dioxane	1.2 mL
NEW	CLM-1859-1.2	**Carbofuran phenol (ring-$^{13}C_6$,98%)**	*$C_6C_4H_{12}O_2$	200 µg/mL in Nonane	1.2 mL
	ULM-6875-1.2	**Carbofuran phenol (unlabeled)**	$C_{10}H_{12}O_2$	200 µg/mL in Nonane	1.2 mL
NEW	CNLM-7148-1.2	**Methomyl (acetohydroxamate-$^{13}C_2$,99%;^{15}N 98%)**	*$C_2C_3H_{10}N*NO_2S$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-8639-1.2	**Methomyl (unlabeled)**	$C_5H_{10}NNO_2S$	100 µg/mL in Methanol	1.2 mL
NEW	DLM-7141	**Propoxur (isopropyl-D_7,98%)**	$C_{11}D_7H_8NO_3$		Inquire

Pyrethroid Pesticide and Metabolite Standards

	CLM-7293-1.2	**Cyfluthrin (mix of stereoisomers) (phenoxy-$^{13}C_6$,99%)**	*$C_6C_{16}H_{19}Cl_2NO_3$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7454-1.2	**Cyfluthrin (mix of stereoisomers) (unlabeled)**	$C_{22}H_{18}Cl_2FNO_3$	100 µg/mL in Nonane	1.2 mL
	CLM-7292-1.2	**Cypermethrin (mix of stereoisomers) (phenoxy-$^{13}C_6$,99%)**	*$C_6C_{16}Cl_2NO_3$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7453-1.2	**Cypermethrin (mix of stereoisomers) (unlabeled)**	$C_{22}H_{19}Cl_2NO_3$	100 µg/mL in Nonane	1.2 mL
NEW	CDLM-6002-1.2	**DCCA (3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid) (carboxyl-$^{13}C_2$,99%;1-D,98%)**	*$C_2C_6H_9DCl_2O_2$	100 µg/mL in Acetonitrile-D_3	1.2 mL
NEW	ULM-7303-1.2	**DCCA (3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid) (unlabeled)**	$C_8H_9HCl_2O_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-7389-1.2	**4-Fluoro-3-phenoxybenzoic acid ($^{13}C_6$,99%)**	*$C_6C_7H_9FO_3$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7391-1.2	**4-Fluoro-3-phenoxybenzoic acid (unlabeled)**	$C_{13}H_9FO_3$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-7322-1.2	***cis*-Permethrin (phenoxy-$^{13}C_6$,99%)**	*$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8526-1.2	***cis*-Permethrin (unlabeled)**	$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
	CLM-7323-1.2	***trans*-Permethrin (phenoxy-$^{13}C_6$,99%)**	*$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8527-1.2	***trans*-Permethrin (unlabeled)**	$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
NEW	CLM-4542-1.2	**3-Phenoxybenzoic acid (phenoxy-$^{13}C_6$,99%)**	*$C_6H_5OC_6H_4CO_2H$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-4542-SA-1.2	**3-Phenoxybenzoic acid (phenoxy-$^{13}C_6$,99%)**	*$C_6H_5OC_6H_4CO_2H$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-6781-1.2	**3-Phenoxybenzoic acid (unlabeled)**	$C_6H_5OC_6H_4CO_2H$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-6781-SA-1.2	**3-Phenoxybenzoic acid (unlabeled)**	$C_6H_5OC_6H_4CO_2H$	100 µg/mL in Acetonitrile	1.2 mL

Triazine Herbicide and Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-3737-1.2	**Atrazine (ring-$^{13}C_3$,99%)**	$(CH_3)_2CHNH(*C_3N_3Cl)NHCH_2CH_3$	100 µg/mL in Nonane	1.2 mL
	DLM-1149-1.2	**Atrazine (ethylamine-D_5,98%)**	$(CH_3)_2CHNH(C_3N_3Cl)NHCD_2CD_3$	100 µg/mL in Nonane	1.2 mL
	ULM-7235-1.2	**Atrazine (unlabeled)**	$(CH_3)_2CHNH(C_3N_3Cl)NHCH_2CH_3$	100 µg/mL in Nonane	1.2 mL
	CLM-3894-1.2	**Atrazine mercapturate (ring-$^{13}C_3$,99%)**	$*C_3C_{10}H_{22}N_6O_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7346-1.2	**Atrazine mercapturate (unlabeled)**	$C_{13}H_{22}N_6O_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8311-1.2	**Atrazinethiol (ring-$^{13}C_3$,99%)**	$(CH_3CH_2NH)*C_3N_3(SH)(NHCH(CH_3)_2)$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8318-1.2	**Atrazinethiol (unlabeled)**	$(CH_3CH_2NH)C_3N_3(SH)(NHCH(CH_3)_2)$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8313-1.2	**Desethylatrazine (ring-$^{13}C_3$,99%)** (CP: 97%)	$(CH_3)_2CHNH(*C_3N_3Cl)NH_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8320-1.2	**Desethylatrazine (unlabeled)**	$(CH_3)_2CHNH(C_3N_3Cl)NH_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-7528-1.2	**Desethyl desisopropyl atrazine ($^{13}C_3$,99%)** (CP: 95%)	$*C_3H_4ClN_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8001-1.2	**Desethyl desisopropyl atrazine (unlabeled)**	$C_3H_4ClN_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8316-1.2	**Desethyldesisopropyl-hydroxyatrazine (Ammeline) (ring-$^{13}C_3$,99%)**	$NH_2(*C_3N_3OH)NH_2$	100 µg/mL in 80%H_2O/ 20%Diethylamine	1.2 mL
NEW	ULM-8323-1.2	**Desethyldesisopropyl-hydroxyatrazine (Ammeline) (unlabeled)**	$NH_2(C_3N_3OH)NH_2$	100 µg/mL in 80%H_2O/ 20%Diethylamine	1.2 mL
NEW	CLM-8315-1.2	**Desethylhydroxyatrazine (ring-$^{13}C_3$,99%)**	$(CH_2N)*C_3N_3(OH)(NHCH(CH_3)_2)$	100 µg/mL in 80%Water/ 20%Diethylamine	1.2 mL
NEW	ULM-8322-1.2	**Desethylhydroxyatrazine (unlabeled)**	$(CH_2N)C_3N_3(OH)(NHCH(CH_3)_2)$	100 µg/mL in 80%Water/ 20%Diethylamine	1.2 mL
NEW	CLM-8312-1.2	**Desisopropylatrazine (ring-$^{13}C_3$,99%)**	$CH_3CH_2NH(*C_3N_3Cl)NH_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8319-1.2	**Desisopropylatrazine (unlabeled)**	$CH_3CH_2NH(C_3N_3Cl)NH_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8314-1.2	**Desisopropylhydroxyatrazine (ring-$^{13}C_3$,99%)**	$(CH_3CH_2NH)*C_3N_3(OH)(NH_2)$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8321-1.2	**Desisopropylhydroxyatrazine (unlabeled)**	$(CH_3CH_2NH)C_3N_3(OH)(NH_2)$	100 µg/mL in 80%Water/ 20%Diethylamine	1.2 mL
NEW	CLM-8310-1.2	**Hydroxyatrazine (ring-$^{13}C_3$,99%)**	$(CH_3CH_2NH)*C_3N_3(OH)(NHCH(CH_3)_2)$	100 µg/mL in 80%Water/ 20%Diethylamine	1.2 mL
NEW	ULM-8317-1.2	**Hydroxyatrazine (unlabeled)**	$(CH_3CH_2NH)C_3N_3(OH)(NHCH(CH_3)_2)$	100 µg/mL in 80%Water/ 20%Diethylamine	1.2 mL
	CLM-3738-1.2	**Propazine (ring-$^{13}C_3$,99%)**	$*C_3C_6H_{16}ClN_5$	100 µg/mL in Methanol	1.2 mL
	CLM-3739-1.2	**Simazine (ring-$^{13}C_3$,99%)**	$*C_3C_4H_{12}ClN_5$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-7893-1.2	**Simazine (unlabeled)**	$C_7H_{12}ClN_5$	100 µg/mL in Methanol	1.2 mL

Toxaphene Standards

NEW	CLM-7930-1.2	**Parlar 26 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{10}Cl_8$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7828-1.2	**Parlar 26 (unlabeled)**	$C_{10}H_{10}Cl_8$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8705-1.2	**Parlar 32 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8665-1.2	**Parlar 32 (unlabeled)**	$C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8719-1.2	**Parlar 39 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8767-1.2	**Parlar 39 (unlabeled)**	$C_{10}H_{11}Cl_7$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-7931-1.2	**Parlar 50 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7829-1.2	**Parlar 50 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-7932-1.2	**Parlar 62 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-7830-1.2	**Parlar 62 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8720-1.2	**Parlar 69 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8768-1.2	**Parlar 69 (unlabeled)**	$C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	CLM-8721-1.2	**Parlar 70 (U-$^{13}C_{10}$,99%)**	$*C_{10}H_9Cl_9$	10 µg/mL in Nonane	1.2 mL
NEW	ULM-8769-1.2	**Parlar 70 (unlabeled)**	$C_{10}H_9Cl_9$	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	**Acephate (D_6,98%)**	$C_4D_6H_4NO_3PS$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-7263-1.2	**Acephate (unlabeled)**	$C_4H_{10}NO_3PS$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3727-1.2	**Alachlor (ring-$^{13}C_6$,99%)** (CP: 96%)	$*C_6C_8H_{20}ClNO_2$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-3687-1.2	**Alachlor acetylcysteine adduct (ring-$^{13}C_6$,99%)**	$*C_6C_{13}H_{28}N_2O_5S$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4725-1.2	**Aldrin ($^{13}C_{12}$,99%)**	$*C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7441-1.2	**Aldrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-3737-1.2	**Atrazine (ring-$^{13}C_3$,99%)**	$*C_3C_5H_{14}ClN_5$	100 µg/mL in Nonane	1.2 mL
	DLM-1149-1.2	**Atrazine (ethylamine-D_5,98%)**	$C_8H_9D_5ClN_5$	100 µg/mL in Nonane	1.2 mL
	DLM-1149-5	**Atrazine (ethylamine-D_5,98%)**	$C_8H_9D_5ClN_5$	Neat	5 mg
	ULM-7235-1.2	**Atrazine (unlabeled)**	$C_8H_{14}ClN_5$	100 µg/mL in Nonane	1.2 mL
	CLM-3894-1.2	**Atrazine mercapturate (ring-$^{13}C_3$,99%)**	$*C_3C_{10}H_{22}N_6O_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7346-1.2	**Atrazine mercapturate (unlabeled)**	$C_{13}H_{22}N_6O_3S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8311-1.2	**Atrazinethiol (ring-$^{13}C_3$,99%)**	$*C_3C_5H_{15}N_5S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8318-1.2	**Atrazinethiol (unlabeled)**	$C_8H_{15}N_5S$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-7140	**Bendiocarb ($^{13}C_3$,99%)**	$*C_3C_8H_{13}NO_4$		Inquire
NEW	DLM-7152	**Bensulide (isopropoxy-D_{14},98%)**	$C_{14}D_{14}H_{10}NO_4PS_3$		Inquire
	CLM-2482-1.2	**α-BHC (α-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7232-1.2	**α-BHC (α-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-3623-1.2	**β-BHC (β-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	50 µg/mL in Nonane	2 x 1.2 mL
	ULM-6132-1.2	**β-BHC (β-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	2 x 1.2 mL
	ULM-6132-SM-1.2	**β-BHC (β-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Methanol	1.2 mL
	CDLM-624-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%;D_6,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-1282-1.2	**γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6133-1.2	**γ-BHC (γ-HCH) (Lindane) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-6133-SM-1.2	**γ-BHC (γ-HCH) (Lindane) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Methanol	1.2 mL
	CLM-3648-1.2	**δ-BHC (δ-HCH) ($^{13}C_6$,99%)**	$*C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7233-1.2	**δ-BHC (δ-HCH) (unlabeled)**	$C_6H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	CLM-3741-1.2	**Bromoxynil (ring-$^{13}C_6$,99%)**	$*C_6CH_3Br_2NO$	50 µg/mL in Nonane	2 x 1.2 mL
	ULM-6205-1.2	**Bromoxynil (unlabeled)**	$C_7H_3Br_2NO$	50 µg/mL in Nonane	1.2 mL
	CLM-4682-1.2	**Carbaryl (ring-$^{13}C_6$,99%)**	$*C_6C_6H_{11}NO_2$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8096-1.2	**Carbaryl (unlabeled)**	$C_{10}H_7CO_2NHCH_3$	100 µg/mL in Nonane	1.2 mL
	CLM-1911-1.2	**Carbofuran (ring-$^{13}C_6$,99%)**	$*C_6C_6H_{15}NO_3$	100 µg/mL in 1,4-Dioxane	1.2 mL
	ULM-7419-1.2	**Carbofuran (unlabeled)**	$C_{12}H_{15}NO_3$	100 µg/mL in 1,4-Dioxane	1.2 mL
NEW	CLM-1859-1.2	**Carbofuran phenol (ring-$^{13}C_6$,98%)**	$*C_6C_4H_{12}O_2$	200 µg/mL in Methanol	1.2 mL
NEW	ULM-6875-1.2	**Carbofuran phenol (unlabeled)**	$C_{10}H_{12}O_2$	200 µg/mL in Nonane	1.2 mL
NEW	CLM-8087-1.2	***cis*-Chlordane (α) ($^{13}C_{10}$,99%)**	$*C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2419-25	***cis*-Chlordane (α) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
	CLM-4792-1.2	***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	$*C_{10}H_6Cl_8$	100 µg/mL in Nonane	1.2 mL
	ULM-2420-25	***trans*-Chlordane (γ) (unlabeled)**	$C_{10}H_6Cl_8$	Neat	25 mg
NEW	CLM-4814-1.2	**Chlordecone (Kepone) ($^{13}C_{10}$,99%)**	$*C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-2301-1.2	**Chlordecone (Kepone) (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-2301-0.1	**Chlordecone (Kepone) (unlabeled)**	$C_{10}Cl_{10}O$	Neat	0.1 g
	CLM-4758-1.2	**Chlordene ($^{13}C_{10}$,99%)**	$*C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7443-1.2	**Chlordene (unlabeled)**	$C_{10}H_6Cl_6$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-6759	**4-Chloro-2-hydroxymethyl phenoxyacetic acid (HMCPA) (ring-$^{13}C_6$, 99%)**	$ClOH*C_6H_3OCH_2CO_2H$		Inquire
NEW	CLM-6758	**4-Chloro-2-methylphenoxyacetic acid (MCPA) (ring-$^{13}C_6$, 99%)**	$ClCH_3*C_6H_3OCH_2CO_2H$		Inquire

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	Catalog #	Compound	Formula	Concentration	Amount
NEW	CLM-1913-1.2	**4-Chlorophenol ($^{13}C_6$,99%)**	*C_6H_4ClOH	100 µg/mL in Nonane	1.2 mL
	ULM-7420-1.2	**4-Chlorophenol (unlabeled)**	C_6H_4ClOH	100 µg/mL in Nonane	1.2 mL
	DLM-4360-1.2	**Chlorpyrifos (diethyl-D_{10},99%)**	$C_9D_{10}HCl_3NO_3PS$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7489-1.2	**Chlorpyrifos (unlabeled)**	$C_9H_{11}Cl_3NO_3PS$	100 µg/mL in Nonane	1.2 mL
NEW	DLM-7153	**Chlorpyrifos methyl (dimethyl-D_6,98%)**	$C_7HCl_3D_6NO_3PS$		Inquire
	DLM-3760-0.01	**Chlortoluron (*N,N*-dimethyl-D_6,98%)**	$C_{10}H_7D_6ClN_2O$	Neat	10 mg
	ERC-034	**Cyclohexyl methylphosphonic acid (unlabeled)**	$CH_3PO_3HC_6H_{11}$	1000 µg/mL in Methanol	1.2 mL
	CLM-7293-1.2	**Cyfluthrin, mix of stereoisomers (phenoxy-$^{13}C_6$,99%)**	*$C_6C_{16}H_{18}Cl_2FNO_3$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7454-1.2	**Cyfluthrin, mix of stereoisomers (unlabeled)**	$C_{22}H_{18}Cl_2FNO_3$	100 µg/mL in Nonane	1.2 mL
	CLM-7292-1.2	**Cypermethrin, mix of stereoisomers (phenoxy-$^{13}C_6$,99%)**	*$C_6C_{16}H_{19}Cl_2NO_3$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7453-1.2	**Cypermethrin, mix of stereoisomers (unlabeled)**	$C_{22}H_{19}Cl_2NO_3$	100 µg/mL in Nonane	1.2 mL
	CLM-6999-1.2	**2,4′-DDD (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	*$C_{12}C_2H_{10}Cl_4$	50 µg/mL in Nonane	1.2 mL
	ULM-7450-1.2	**2,4′-DDD (unlabeled) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}H_{10}Cl_4$	50 µg/mL in Nonane	1.2 mL
	CLM-7100-1.2	**4,4′-DDD (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethane]**	*$C_{12}C_2H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL
	DLM-3533-1.2	**4,4′-DDD (ring-D_8,98%) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}D_8H_2Cl_4$	100 µg/mL in Nonane	1.2 mL
	ULM-7216-1.2	**4,4′-DDD (unlabeled) [(*p,p*′-Dichlorodiphenyl) dichloroethane]**	$C_{14}H_{10}Cl_4$	100 µg/mL in Nonane	1.2 mL
	CLM-4693-1.2	**2,4′-DDE (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl*C_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6251-1.2	**2,4′-DDE (unlabeled) [(*o,p*′-Dichlorodiphenyl) dichloroethylene]**	$C_{14}H_8Cl_4$	100 µg/mL in Nonane	1.2 mL
	CLM-1627-1.2	**4,4′-DDE (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl*C_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	CLM-1627-5	**4,4′-DDE (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(Cl*C_6H_4)_2C{=}CCl_2$	Neat	5 mg
	ULM-6137-1.2	**4,4′-DDE (unlabeled) [(*p,p*′-Dichlorodiphenyl) dichloroethylene]**	$(ClC_6H_4)_2C{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4692-1.2	**2,4′-DDT (ring-$^{13}C_{12}$,99%) [(*o,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
	ULM-6134-1.2	**2,4′-DDT (unlabeled) [(*o,p*′-Dichlorodiphenyl) trichloroethane]**	$ClC_6H_4CH(CCl_3)C_6H_4Cl$	100 µg/mL in Nonane	1.2 mL
	CLM-1281-1.2	**4,4′-DDT (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl*C_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
	CLM-1281-5	**4,4′-DDT (ring-$^{13}C_{12}$,99%) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(Cl*C_6H_4)_2CHCCl_3$	Neat	5 mg
	ULM-6135-1.2	**4,4′-DDT (unlabeled) [(*p,p*′-Dichlorodiphenyl) trichloroethane]**	$(ClC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8313-1.2	**Desethylatrazine (ring-$^{13}C_3$,99%)** (CP: 97%)	*$C_3C_3H_{10}ClN_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8320-1.2	**Desethylatrazine (unlabeled)**	$C_6H_{10}ClN_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8316-1.2	**Desethyldesisopropylhydroxyatrazine (Ammeline) (ring-$^{13}C_3$,99%)**	*$C_3H_5N_5O$	100 µg/mL in 80% H_2O/ 20% Diethylamine	1.2 mL
NEW	ULM-8323-1.2	**Desethyldesisopropylhydroxyatrazine (Ammeline) (unlabeled)**	$C_3H_5N_5O$	100 µg/mL in 80% H_2O/ 20%Diethylamine	1.2 mL
NEW	CLM-8315-1.2	**Desethylhydroxyatrazine (ring-$^{13}C_3$,99%)**	$C_3{*}C_3H_{11}N_5O$	100 µg/mL in 80% H_2O/ 20% Diethylamine	1.2 mL
NEW	ULM-8322-1.2	**Desethylhydroxyatrazine (unlabeled)**	$C_6H_{11}N_5O$	100 µg/mL in 80% H_2O/ 20% Diethylamine	1.2 mL

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NEW	CLM-8312-1.2	**Desisopropylatrazine (ring-$^{13}C_3$,99%)**	*$C_3C_2H_8ClN_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8319-1.2	**Desisopropylatrazine (unlabeled)**	$C_5H_8ClN_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-8314-1.2	**Desisopropylhydroxyatrazine (ring-^{13}C,99%)**	*$CC_4H_9N_5O$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8321-1.2	**Desisopropylhydroxyatrazine (ring-$^{13}C_3$,99%)**	$C_5H_9N_5O$	100 µg/mL in 80%H_2O/ 20%Diethylamine	1.2 mL
	DLM-1148-1.2	**Diazinon (diethyl-D_{10},98%)**	$C_{12}H_{11}D_{10}N_2O_3PS$	100 µg/mL in Nonane	1.2 mL
	DLM-1148-5	**Diazinon (diethyl-D_{10},98%)**	$C_{12}H_{11}D_{10}N_2O_3PS$	Neat	5 mg
NEW	ULM-6575-S-10X-1.2	**Diazinon (unlabeled)**	$C_{12}H_{21}N_2O_3PS$	1000 µg/mL in Nonane	1.2 mL
	CLM-816-1.2	**2,6-Dichloro-4-nitroaniline (Dicloran) (ring-$^{13}C_6$,99%)**	Cl_2*$C_6H_2(NO_2)NH_2$	100 µg/mL in Nonane	1.2 mL
	CLM-1858-1.2	**2,4-Dichlorophenoxyacetic acid (2,4-D) (ring-$^{13}C_6$,99%)**	Cl_2*$C_6H_3OCH_2CO_2H$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-1146-5	**2,4-Dichlorophenoxyacetic acid (2,4-D) (ring-D_3,98%)**	$Cl_2C_6D_3OCH_2CO_2H$	Neat	5 mg
	ULM-7418-1.2	**2,4-Dichlorophenoxyacetic acid (2,4-D) (unlabeled)**	$Cl_2C_6H_3OCH_2CO_2H$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CDLM-6002-1.2	**3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid (DCCA) (carboxyl-$^{13}C_2$,99%;1-D,98%)**	*$C_2C_6H_9DCl_2O_2$	100 µg/mL in Acetonitrile-D_3	1.2 mL
NEW	ULM-7303-1.2	**3-(2,2-Dichlorovinyl)-2,2-dimethyl-1-cyclopropane carboxylic acid (DCCA) (unlabeled)**	$C_8H_9HCl_2O_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3722-1.2	**Dichlorprop (ring-$^{13}C_6$,99%)**	*$C_6C_3H_8Cl_2O_3$	100 µg/mL in Nonane	1.2 mL
	ULM-7313-1.2	**Dichlorprop (unlabeled)**	$(Cl)_2C_6H_3OCH(CH_3)CO_2H$	100 µg/mL in Nonane	1.2 mL
	DLM-2829-0.01	**Dichlorvos (dimethyl-D_6,98%)**	$C_4D_6HCl_2O_4P$	Neat	10 mg
	ULM-7217-1.2	**Dichlorvos (unlabeled)**	$(H_3CO)_2POOCH{=}CCl_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4726-1.2	**Dieldrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7230-1.2	**Dieldrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ERD-117	***O,O*-Diethyl dithiophosphate, potassium salt (unlabeled)**	$C_4H_{11}KO_2PS_2$	1000 µg/mL in Methanol	1.2 mL
	ERD-118	**Diethyl hydrogen phosphate (unlabeled)**	$C_4H_{10}O_4P$	1000 µg/mL in Methanol	1.2 mL
	DLM-4852-1.2	***O,O*-Diethyl thiophosphate, potassium salt (diethyl-D_{10},98%)**	$C_4D_{10}KO_3PS$	1000 µg/mL in Methanol	1.2 mL
	ERD-119	***O,O*-Diethyl thiophosphate, potassium salt (unlabeled)**	$C_4H_{11}KO_3PS$	1000 µg/mL in Methanol	1.2 mL
NEW	ERD-155	***O,O*-Dimethyl dithiophosphate, sodium salt (unlabeled)**	$C_2H_6NaO_2PS_2$	1000 µg/mL in Methanol	1.2 mL
	ERD-121	**Dimethyl hydrogen phosphate (unlabeled)**	$(CH_3O)_2P(O)OH$	1000 µg/mL in Methanol	1.2 mL
	ULM-4617-1.2	***O,O*-Dimethyl hydrogen thiophosphate (unlabeled)**	$C_2H_6NaO_3PS$	1000 µg/mL in Methanol	1.2 mL
	ULM-6089	***O,S*-Dimethyl thiophosphate, sodium salt (unlabeled)**	$C_2H_6NaO_3PS$		Inquire
NEW	DLM-4762-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (dimethyl-D_6,98%)**	$CH_3C_6H_4CON(CH_2CD_3)_2$	100 µg/mL in Methylene chloride-D_2	1.2 mL
NEW	DLM-4762-D-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (dimethyl-D_6,98%)**	$CH_3C_6H_4CON(CH_2CD_3)_2$	100 µg/mL in Dioxane	1.2 mL
NEW	ULM-7975-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (unlabeled)**	$CH_3C_6H_4CON(CH_2CH_3)_2$	100 µg/mL in Methylene chloride	1.2 mL
NEW	ULM-7975-D-1.2	***N,N*-Diethyl-*m*-toluamide (DEET) (unlabeled)**	$CH_3C_6H_4CON(CH_2CH_3)_2$	100 µg/mL in Dioxane	1.2 mL
NEW	DLM-7151-1.2	**Dimethoate (*O,O*-dimethyl-D_6,98%)**	$C_5D_6H_6NO_3PS_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7972-1.2	**Dimethoate (unlabeled)**	$C_5H_{12}NO_3PS_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3373-1.2	**Dinocap (ring-$^{13}C_6$,99%)**	*$C_6C_{12}H_{24}N_2O_6$	100 µg/mL in Nonane	1.2 mL
NEW	DLM-7183	**Disulfoton (*O,O*-diethyl-D_{10},98%)**	$C_8D_{10}H_9O_2PS_3$		Inquire

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	CLM-6025-1.2	**Endosulfan I ($^{13}C_9$,99%)**	*$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	DLM-2862-1.2	**Endosulfan I (D_4,97%)**	$C_9D_4H_2Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7447-1.2	**Endosulfan I (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	CLM-6026-1.2	**Endosulfan II ($^{13}C_9$,99%)**	*$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
	ULM-7448-1.2	**Endosulfan II (unlabeled)**	$C_9H_6Cl_6O_3S$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-7531-1.2	**Endosulfan sulfate ($^{13}C_9$,99%)**	*$C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-7990-1.2	**Endosulfan sulfate (unlabeled)**	$C_9H_6Cl_6O_4S$	100 µg/mL in Nonane	1.2 mL
	CLM-4782-1.2	**Endrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	ULM-7444-1.2	**Endrin (unlabeled)**	$C_{12}H_8Cl_6O$	100 µg/mL in Nonane	1.2 mL
	CLM-4815-50	**Endrin aldehyde ($^{13}C_{12}$,99%)**	*$C_{10}C_2H_{10}Cl_6O$	Neat	50 µg
	CLM-4816-50	**Endrin ketone ($^{13}C_{12}$,99%)**	*$C_{10}C_2H_8Cl_6O$	Neat	50 µg
	ERE-024	**Ethyl methylphosphonic acid (unlabeled)**	$C_3H_9O_3P$	1000 µg/mL in Methanol	1.2 mL
	DLM-2878-0.01	**Fenitrothion (*O,O*-dimethyl-D_6,98%)**	$C_9D_6H_6NO_5PS$	Neat	10 mg
NEW	CLM-7389-1.2	**4-Fluoro-3-phenoxybenzoic acid ($^{13}C_6$,99%)**	*$C_6C_7H_9FO_3$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7391-1.2	**4-Fluoro-3-phenoxybenzoic acid (unlabeled)**	$C_{13}H_9FO_3$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4545-1.2	**Fonofos (ring-$^{13}C_6$,99%)**	*$C_6C_4H_{15}OPS_2$	100 µg/mL in Nonane	1.2 mL
	ULM-6694-1.2	**Fonofos (unlabeled)**	$CH_2CH_3P(S)(OCH_2CH_3)(SC_6H_5)$	100 µg/mL in Nonane	1.2 mL
	CNLM-4666-1.2	**Glyphosate (2-^{13}C,99%;^{15}N,98+%)**	HO_2*CCH_2*$NHCH_2PO(OH)_2$	100 µg/mL in H_2O	1.2 mL
NEW	CNLM-4666-10	**Glyphosate (2-^{13}C,99%;^{15}N,98+%)**	HO_2*CCH_2*$NHCH_2PO(OH)_2$	100 µg/mL in H_2O	10 mL
	ULM-6876-1.2	**Glyphosate (unlabeled)**	$HO_2CCH_2NHCH_2PO(OH)_2$	100 µg/mL in H_2O	1.2 mL
	CLM-4759-1.2	**Heptachlor ($^{13}C_{10}$,99%)**	*$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-1.2	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	100 µg/mL in Nonane	1.2 mL
	ULM-2424-0.1	**Heptachlor (unlabeled)**	$C_{10}H_5Cl_7$	Neat	0.1 g
	CLM-4734-1.2	***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	*$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-1.2	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	ULM-2425-0.1	***cis*-Heptachlor epoxide (B isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	Neat	0.1 g
NEW	ULM-7869-1.2	***trans*-Heptachlor epoxide (A isomer) (unlabeled)**	$C_{10}H_5Cl_7O$	100 µg/mL in Nonane	1.2 mL
	CLM-351-1.2	**Hexachlorobenzene ($^{13}C_6$,99%)**	*C_6Cl_6	100 µg/mL in Nonane	1.2 mL
	ULM-6130-1.2	**Hexachlorobenzene (unlabeled)**	C_6Cl_6	100 µg/mL in Nonane	1.2 mL
NEW	CLM-8310-1.2	**Hydroxyatrazine (ring-$^{13}C_3$,99%)**	(CH_3CH_2NH)*$C_3N_3(OH)$ $(NHCH(CH_3)_2)$	100 µg/mL in 80%H_2O/ 20% Diethylamine	1.2 mL
NEW	ULM-8317-1.2	**Hydroxyatrazine (unlabeled)**	$(CH_3CH_2NH)C_3N_3(OH)$ $(NHCH(CH_3)_2)$	100 µg/mL in 80%H_2O/ 20% Diethylamine	1.2 mL
NEW	DLM-8512-1.2	**Imidacloprid (4,4,5,5-D_4,98%)**	$C_9H_6D_4ClN_5O_2$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-8513-1.2	**Imidacloprid (unlabeled)**	$C_9H_{10}ClN_5O_2$	100 µg/mL in Methanol	1.2 mL
	CLM-4727-1.2	**Isodrin ($^{13}C_{12}$,99%)**	*$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
	ULM-7442-1.2	**Isodrin (unlabeled)**	$C_{12}H_8Cl_6$	100 µg/mL in Nonane	1.2 mL
NEW	ERI-026	**Isobutyl hydrogen methylphosphonate (unlabeled)**	$C_5H_{13}O_3P$	1000 µg/mL in Methanol	1.2 mL
	ERI-015	**Isopropyl methylphosphonic acid (unlabeled)**	$C_4H_{11}O_3P$	100 µg/mL in Methanol	1.2 mL
	CLM-4814-1.2	**Kepone (Chlordecone) ($^{13}C_{10}$,99%)**	*$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	ULM-2301-1.2	**Kepone (unlabeled)**	$C_{10}Cl_{10}O$	100 µg/mL in Nonane	1.2 mL
	ULM-2301-0.1	**Kepone (unlabeled)**	$C_{10}Cl_{10}O$	Neat	0.1 g
	DLM-4476-1.2	**Malathion (D_{10},99%)**	$C_{10}D_{10}H_9O_6PS_2$	100 µg/mL in Nonane	1.2 mL
	ULM-8122-1.2	**Malathion (unlabeled)**	$(CH_3O)_2P$=SSCH$(CO_2CH_2CH_3)$ $CH_2CO_2CH_2CH_3$	100 µg/mL in Nonane	1.2 mL
NEW	DLM-7149	**Methamidophos (dimethyl-D_6,98%)**	$C_2D_6H_2NO_2PS$		Inquire

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NEW	CNLM-7148-1.2	**Methomyl (acetohydroxamate-$^{13}C_2$,99%;^{15}N 98%)**	$*C_2C_3H_{10}N*NO_2S$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-8639-1.2	**Methomyl (unlabeled)**	$C_5H_{10}NNO_2S$	100 µg/mL in Methanol	1.2 mL
	CLM-4683-1.2	**Methoxychlor (ring-$^{13}C_{12}$,99%)**	$(*C_6OC)_2C_2Cl_3$	100 µg/mL in Nonane	1.2 mL
	ULM-7440-1.2	**Methoxychlor (unlabeled)**	$(CH_3OC_6H_4)_2CHCCl_3$	100 µg/mL in Nonane	1.2 mL
	DLM-6196-1.2	**Methylphosphonic acid (methyl-D_3, 98%)**	$CD_3P(O)(OH)_2$	100 µg/mL in Methanol	1.2 mL
	ERM-038	**Methylphosphonic acid (unlabeled)**	$CH_3P(O)(OH)_2$	100 µg/mL in Methanol	1.2 mL
	CLM-3712-1.2	**Metolachlor (ring-$^{13}C_6$,99%)**	$*C_6C_9H_{22}ClNO_2$	100 µg/mL in Nonane	1.2 mL
	ULM-7314-1.2	**Metolachlor (unlabeled)**	$CH_3CH_2(CH_3)H_3N(COCHCl)$ $CH(CH_3CH_2OCH_3$	100 µg/mL in Nonane	1.2 mL
	CLM-4813-1.2	**Mirex ($^{13}C_{10}$,99%)**	$*C_{10}Cl_1$	100 µg/mL in Nonane	1.2 mL
	CLM-2078-1	**Mirex ($^{13}C_8$,99%)**	$*C_8C_2Cl_{12}$	200 µg/mL in Toluene	1 mL
	ULM-2427-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Nonane	1.2 mL
	ULM-2427-SM-1.2	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	100 µg/mL in Methanol	1.2 mL
	ULM-2427-0.1	**Mirex (unlabeled)**	$C_{10}Cl_{12}$	Neat	0.1 g
	CLM-4811-1.2	***cis*-Nonachlor ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	ULM-7445-1.2	***cis*-Nonachlor (unlabeled)**	$*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	CLM-4735-1.2	***trans*-Nonachlor ($^{13}C_{10}$,99%)**	$*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	ULM-7229-1.2	***trans*-Nonachlor (unlabeled)**	$*C_{10}H_5Cl_9$	100 µg/mL in Nonane	1.2 mL
	CLM-4729-1.2	**Oxychlordane ($^{13}C_{10}$,99%)**	$*C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	100 µg/mL in Nonane	1.2 mL
	ULM-6139-SM-1.2	**Oxychlordane (unlabeled)**	$C_{10}H_4Cl_8O$	100 µg/mL in Methanol	1.2 mL
NEW	DLM-7150-1.2	**Oxydemeton methyl (*O,O*-dimethyl-D_6,98%)**	$C_6D_6H_9O_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8579-1.2	**Oxydemeton methyl (unlabeled)**	$C_6H_{15}O_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4538-1.2	**Oxypyrimidine (Diazinon Metabolite) (methyl,4,5,6-$^{13}C_4$,99%)**	$*C_4C_4H_{12}N_2O$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-7432-1.2	**Oxypyrimidine (unlabeled)**	$C_8H_{12}N_2O$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-2970-1.2	**Parathion (diethyl-D_{10},98%)**	$C_{10}D_{10}H_4NO_5PS$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-8144-1.2	**Parathion (unlabeled)**	$NO_2(C_6H_4)OP(=S)(OC_2H_5)_2$	100 µg/mL in Nonane	1.2 mL
	CLM-7322-1.2	***cis*-Permethrin (phenoxy-$^{13}C_6$,99%)**	$*C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8526-1.2	***cis*-Permethrin (unlabeled)**	$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
	CLM-7323-1.2	***trans*-Permethrin (phenoxy-$^{13}C_6$,99%)**	$*C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
NEW	ULM-8527-1.2	***trans*-Permethrin (unlabeled)**	$C_6H_5OC_6H_4CH_2CO_2C_7H_9Cl_2O_3$	50 µg/mL in Nonane	1.2 mL
	CLM-3733-1.2	***o*-Phenylphenol (phenyl-$^{13}C_6$,99%)**	$*C_6C_6H_{10}O$	100 µg/mL in Nonane	1.2 mL
	ULM-7396-1.2	***o*-Phenylphenol (unlabeled)**	$C_{12}H_9OH$	100 µg/mL in Nonane	1.2 mL
	CLM-3748-1.2	***p*-Phenylphenol (phenyl-$^{13}C_6$,99%)**	$*C_6C_6H_{10}O$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-4542-1.2	**3-Phenoxybenzoic acid (phenoxy-$^{13}C_6$,99%) (Permethrin metabolite)**	$*C_6H_5OC_6H_4CO_2H$	100 µg/mL in Nonane	1.2 mL
NEW	CLM-4542-SA-1.2	**3-Phenoxybenzoic acid (phenoxy-$^{13}C_6$,99%)**	$*C_6H_5OC_6H_4CO_2H$	100 µg/mL in Acetonitrile	1.2 mL
	ULM-6781-1.2	**3-Phenoxybenzoic acid (unlabeled)**	$C_6H_5OC_6H_4CO_2H$	100 µg/mL in Nonane	1.2 mL
NEW	ULM-6781-SA-1.2	**3-Phenoxybenzoic acid (unlabeled)**	$C_6H_5OC_6H_4CO_2H$	100 µg/mL in Acetonitrile	1.2 mL
NEW	CLM-4544-1.2	**Phorate (diethoxy-$^{13}C_4$,99%)**	$(*C_2H_5O)_2P(S)SCH_2SC_2H_5$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-7567-1.2	**Phorate (unlabeled)**	$(C_2H_5O)_2P(S)SCH_2SC_2H_5$	100 µg/mL in Acetonitrile	1.2 mL
	DLM-4667-1.2	**Phosmet (dimethyl-D_6, 98%)**	$C_{11}H_6D_6NO_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
NEW	ULM-8454-1.2	**Phosmet (unlabeled)**	$C_{11}H_{12}NO_4PS_2$	100 µg/mL in Acetonitrile	1.2 mL
	CLM-3738-1.2	**Propazine (ring-$^{13}C_3$,99%)**	$*C_3C_6H_{16}ClN_5$	100 µg/mL in Methanol	1.2 mL
NEW	DLM-7141	**Propoxur (isopropyl-D_7,98%)**	$C_{11}D_7H_8NO_3$		Inquire

Individual Pesticide and Pesticide Metabolite Standards

	Catalog #	Compound	Formula	Concentration	Amount
	CLM-3739-1.2	**Simazine (ring-$^{13}C_3$,99%)**	*$C_3C_4H_{12}ClN_5$	100 µg/mL in Methanol	1.2 mL
NEW	ULM-7893-1.2	**Simazine (unlabeled)**	$C_7H_{12}ClN_5$	100 µg/mL in Methanol	1.2 mL
	DLM-380-1.2	**Styrene (D_8,98%) + BHT**	$C_6D_5CD{=}CD_2$	100 µg/mL in Nonane	1.2 mL
	CLM-4543	**Terbufos (diethoxy-$^{13}C_4$,99%)**	$C(CH_3)_3SCH_2SP(S)(O*CH_2*CH_3)_2$		Inquire
	CLM-4551-1.2	**2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (ring-$^{13}C_6$,99%)**	*$C_6C_2H_5Cl_3O_3$	100 µg/mL in Methylene chloride	1.2 mL
	ULM-7213-1.2	**2,4,5-Trichlorophenoxyacetic acid (2,4,5-T) (unlabeled)**	$C_6H_2Cl_3OCH_2CO_2H$	100 µg/mL in Methylene chloride	1.2 mL
	DLM-4479-1.2	**Trifluralin (di-*n*-propyl-D_{14},98%)**	$C_{13}D_{14}H_2F_3N_3O_4$	100 µg/mL in Nonane	1.2 mL
	ULM-7236-1.2	**Trifluralin (unlabeled)**	$C_{13}H_{14}H_2F_3N_3O_4$	100 µg/mL in Nonane	1.2 mL
	CLM-6620-1.2	**1,2,2-Trimethylpropyl hydrogen methylphosphonate (trimethylpropyl-$^{13}C_6$,99%)**	*$C_6CH_{17}O_3P$	100 µg/mL in Methanol	1.2 mL
	DLM-6861-1.2	**Warfarin (phenyl-D_5,98%)**	$C_{19}H_{11}D_5O_4$	100 µg/mL in Acetonitrile-D_3	1.2 mL
	ULM-7242-1.2	**Warfarin (unlabeled)**	$C_{19}H_{16}O_4$	100 µg/mL in Acetonitrile	1.2 mL

Pesticide Standard Mixtures

	Catalog #	Compound	Amount
NEW	ES-5464	**Expanded POPs Pesticides Calibration Solutions [CS1-CS6]**	Set of 6 x 0.2 mL in Nonane
NEW	ES-5464-CS1	**Expanded POPs Pesticides Calibration Solution [CS1]**	0.2 mL in Nonane
NEW	ES-5464-CS2	**Expanded POPs Pesticides Calibration Solution [CS2]**	0.2 mL in Nonane
NEW	ES-5464-CS3	**Expanded POPs Pesticides Calibration Solution [CS3]**	0.2 mL in Nonane
NEW	ES-5464-CS4	**Expanded POPs Pesticides Calibration Solution [CS4]**	0.2 mL in Nonane
NEW	ES-5464-CS5	**Expanded POPs Pesticides Calibration Solution [CS5]**	0.2 mL in Nonane
NEW	ES-5464-CS6	**Expanded POPs Pesticides Calibration Solution [CS6]**	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
***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
Kepone (Chlordecone)	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
γ-BHC (γ-HCH) (Lindane)	0.4	2	10	40	200	800
δ-BHC (δ-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 ($^{13}C_6$,99%)	20	20	20	20	20	20
Pentachlorobenzene ($^{13}C_6$,99%)	20	20	20	20	20	20
Aldrin ($^{13}C_{12}$,99%)	20	20	20	20	20	20
Endrin ($^{13}C_{12}$,99%)	20	20	20	20	20	20
Dieldrin ($^{13}C_{12}$,99%)	20	20	20	20	20	20
4,4′-DDT ($^{13}C_{12}$,99%)	20	20	20	20	20	20
4,4′-DDE ($^{13}C_{12}$,99%)	20	20	20	20	20	20
4,4′-DDD ($^{13}C_{12}$,99%)	20	20	20	20	20	20
2,4′-DDT ($^{13}C_{12}$,99%)	20	20	20	20	20	20
2,4′-DDE ($^{13}C_{12}$,99%)	20	20	20	20	20	20
2,4′-DDD ($^{13}C_{12}$,99%)	20	20	20	20	20	20
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	20	20	20	20	20	20
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	20	20	20	20	20	20
***cis*-Nonachlor ($^{13}C_{10}$,99%)**	20	20	20	20	20	20
Oxychlordane ($^{13}C_{10}$,99%)	20	20	20	20	20	20
Heptachlor ($^{13}C_{10}$,99%)	20	20	20	20	20	20
***cis*-Heptachlor epoxide ($^{13}C_{10}$,99%)**	20	20	20	20	20	20

Pesticide Standard Mixtures

	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6
Mirex ($^{13}C_{10}$,99%)		20	20	20	20	20	20
Kepone (Chlordecone) ($^{13}C_{10}$,99%)		20	20	20	20	20	20
α-BHC (α-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
β-BHC (β-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%)		20	20	20	20	20	20
δ-BHC (δ-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
Endosulfan I ($^{13}C_9$,99%)		20	20	20	20	20	20
Endosulfan II ($^{13}C_9$,99%)		20	20	20	20	20	20
Syringe							
4,4′-DiCB ($^{13}C_{12}$,99%)	**15**	20	20	20	20	20	20
2,3′,4′,5-TeCB ($^{13}C_{12}$,99%)	**70**	20	20	20	20	20	20
Sampling							
Isodrin ($^{13}C_{12}$,99%)		20	20	20	20	20	20

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

Labeled	ES-5465 (ng/mL)	ES-5465-5X (ng/mL)
Hexachlorobenzene ($^{13}C_6$,99%)	100	500
Pentachlorobenzene ($^{13}C_6$,99%)	100	500
Aldrin ($^{13}C_{12}$,99%)	100	500
Dieldrin ($^{13}C_{12}$,99%)	100	500
Endrin ($^{13}C_{12}$,99%)	100	500
4,4′-DDT ($^{13}C_{12}$,99%)	100	500
4,4′-DDE ($^{13}C_{12}$,99%)	100	500
4,4′-DDD ($^{13}C_{12}$,99%)	100	500
2,4′-DDT ($^{13}C_{12}$,99%)	100	500
2,4′-DDE ($^{13}C_{12}$,99%)	100	500
2,4′-DDD ($^{13}C_{12}$,99%)	100	500
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	100	500
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	100	500
***cis*-Nonachlor ($^{13}C_{10}$,99%)**	100	500
Oxychlordane ($^{13}C_{10}$,99%)	100	500
Heptachlor ($^{13}C_{10}$,99%)	100	500
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	100	500
Mirex ($^{13}C_{10}$,99%)	100	500
Kepone (Chlordecone) ($^{13}C_{10}$,99%)	100	500
α-BHC (α-HCH) ($^{13}C_6$,99%)	100	500
β-BHC (β-HCH) ($^{13}C_6$,99%)	100	500
γ-BHC (γ-HCH) (Lindane) ($^{13}C_6$,99%)	100	500
δ-BHC (δ-HCH) ($^{13}C_6$,99%)	100	500
Endosulfan I ($^{13}C_9$,99%)	100	500
Endosulfan II ($^{13}C_9$,99%)	100	500

Pesticide Standard Mixtures

	Catalog #	Compound	Amount
NEW	ES-5466	**Expanded POPs Pesticides Sampling Spike**	1.2 mL in Nonane

Labeled	(ng/mL)
Isodrin ($^{13}C_{12}$,99%)	1000

NEW	EC-5350	**POPs Pesticides HRMS (PCB) Syringe Spike**	1.2 mL in Nonane
NEW	EC-5350-L	**POPs Pesticides LRMS (PCB) Syringe Spike**	0.5 mL in Nonane

Labeled	IUPAC	ES-5350	ES-5350-L
4,4′-DiCB ($^{13}C_{12}$,99%)	**15**	100	1000
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	100	1000

NEW	ES-5467	**Expanded POPs Pesticides PAR Solution**	1.2 mL in Nonane

Unlabeled	
Hexachlorobenzene	1000
Pentachlorobenzene	1000
Aldrin	1000
Dieldrin	1000
Endrin	1000
4,4′-DDT	1000
4,4′-DDE	1000
4,4′-DDD	1000
2,4′-DDT	1000
2,4′-DDE	1000
2,4′-DDD	1000
***trans*-Chlordane (γ)**	1000
***cis*-Chlordane (α)**	1000
***trans*-Nonachlor**	1000
***cis*-Nonachlor**	1000
Oxychlordane	1000
Heptachlor	1000
***trans*-Heptachlor epoxide (A isomer)**	1000
***cis*-Heptachlor epoxide (B isomer)**	1000
Mirex	1000
Kepone (Chlordecone)	1000
α-BHC (α-HCH)	1000
β-BHC (β-HCH)	1000
γ-BHC (γ-HCH) (Lindane)	1000
δ-BHC (δ-HCH)	1000
Endosulfan I	1000
Endosulfan II	1000

Toxaphene Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
Parlar 26	10	30	100	300	1000
Parlar 50	10	30	100	300	1000
Parlar 62	10	30	100	300	1000
Labeled					
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	1	1	1	1	1

NEW	ES-5352-L	**POPs Toxaphene Surrogate Solution with PCB Syringe**	1.2 mL in Nonane

Labeled	(ng/mL)
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	1000

NEW	ES-5353	**Predominant Bioaccumulative Toxaphene Congeners** (Parlar 26, 50 and 62)	1.2 mL in Nonane

Unlabeled	
Parlar 26	2000
Parlar 50	2000
Parlar 62	2000

Pesticide Standard Mixtures

	Catalog #	Compound	Amount
NEW	ES-5348	**POPs Pesticides Calibration Solutions [CS1-CS6]**	Set of 6 x 0.2 mL in Nonane
NEW	ES-5348-CS1	**POPs Pesticides Calibration Solution [CS1]**	0.2 mL in Nonane
NEW	ES-5348-CS2	**POPs Pesticides Calibration Solution [CS2]**	0.2 mL in Nonane
NEW	ES-5348-CS3	**POPs Pesticides Calibration Solution [CS3]**	0.2 mL in Nonane
NEW	ES-5348-CS4	**POPs Pesticides Calibration Solution [CS4]**	0.2 mL in Nonane
NEW	ES-5348-CS5	**POPs Pesticides Calibration Solution [CS5]**	0.2 mL in Nonane
NEW	ES-5348-CS6	**POPs Pesticides Calibration Solution [CS6]**	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 ($^{13}C_6$,99%)		20	20	20	20	20	20
Aldrin ($^{13}C_{12}$,99%)		20	20	20	20	20	20
Dieldrin ($^{13}C_{12}$,99%)		20	20	20	20	20	20
Endrin ($^{13}C_{12}$,99%)		20	20	20	20	20	20
4,4′-DDT ($^{13}C_{12}$,99%)		20	20	20	20	20	20
4,4′-DDE ($^{13}C_{12}$,99%)		20	20	20	20	20	20
4,4′-DDD ($^{13}C_{12}$,99%)		20	20	20	20	20	20
2,4′-DDT ($^{13}C_{12}$,99%)		20	20	20	20	20	20
2,4′-DDE ($^{13}C_{12}$,99%)		20	20	20	20	20	20
2,4′-DDD ($^{13}C_{12}$,99%)		20	20	20	20	20	20
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**		20	20	20	20	20	20
***trans*-Nonachlor ($^{13}C_{10}$,99%)**		20	20	20	20	20	20
***cis*-Nonachlor ($^{13}C_{10}$,99%)**		20	20	20	20	20	20
Oxychlordane ($^{13}C_{10}$,99%)		20	20	20	20	20	20
Heptachlor ($^{13}C_{10}$,99%)		20	20	20	20	20	20
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**		20	20	20	20	20	20
Mirex ($^{13}C_{10}$,99%)		20	20	20	20	20	20
α-BHC (α-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
β-BHC (β-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
Lindane (γ-BHC) (γ-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
δ-BHC (δ-HCH) ($^{13}C_6$,99%)		20	20	20	20	20	20
4,4′-DiCB ($^{13}C_{12}$,99%)	**15**	20	20	20	20	20	20
2,3′,4′,5-TetraCB ($^{13}C_{12}$,99%)	**70**	20	20	20	20	20	20

Pesticide Standard Mixtures

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

Labeled	ES-5349 (ng/mL)	ES-5349-L (ng/mL)	ES-5400 (ng/mL)
Hexachlorobenzene ($^{13}C_6$,99%)	100	1000	200
Aldrin ($^{13}C_{12}$,99%)	100	1000	200
Dieldrin ($^{13}C_{12}$,99%)	100	1000	200
Endrin ($^{13}C_{12}$,99%)	100	1000	200
4,4′-DDT ($^{13}C_{12}$,99%)	100	1000	200
4,4′-DDE ($^{13}C_{12}$,99%)	100	1000	200
4,4′-DDD ($^{13}C_{12}$,99%)	100	1000	200
2,4′-DDT ($^{13}C_{12}$,99%)	100	1000	200
2,4′-DDE ($^{13}C_{12}$,99%)	100	1000	200
2,4′-DDD ($^{13}C_{12}$,99%)	100	1000	200
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	100	1000	200
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	100	1000	200
***cis*-Nonachlor ($^{13}C_{10}$,99%)**	100	1000	200
Oxychlordane ($^{13}C_{10}$,99%)	100	1000	200
Heptachlor ($^{13}C_{10}$,99%)	100	1000	200
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	100	1000	200
Mirex ($^{13}C_{10}$,99%)	100	1000	200
α-BHC (α-HCH) ($^{13}C_6$,99%)	100	1000	200
β-BHC (β-HCH) ($^{13}C_6$,99%)	100	1000	200
Lindane (γ-BHC) (γ-HCH) ($^{13}C_6$,99%)	100	1000	200
δ-BHC (δ-HCH) ($^{13}C_6$,99%)	100	1000	200

	Catalog #	Compound	Amount
NEW	ES-5399	**POPs PAR Solution**	1.2 mL in Nonane
NEW	ES-5399-10X-0.5	**POPs PAR Solution (10X concentration)**	0.5 mL in Nonane

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

NEW	EC-5350	**POPs Pesticides HRMS (PCB) Syringe Spike**	See page 210

Pesticide Standard Mixtures

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

All concentrations are in ng/mL (ppb)

Unlabeled	CS1	CS2	CS3	CS4	CS5
Hexachlorobenzene	0.05	0.15	0.5	1.5	5
Aldrin	0.5	1.5	5	15	50
Dieldrin	0.1	0.3	1	3	10
Endrin	0.5	1.5	5	15	50
4,4′-DDT	0.5	1.5	5	15	50
4,4′-DDE	0.1	0.3	1	3	10
4,4′-DDD	0.5	1.5	5	15	50
2,4′-DDT	0.5	1.5	5	15	50
2,4′-DDE	0.1	0.3	1	3	10
2,4′-DDD	0.5	1.5	5	15	50
***trans*-Chlordane (γ)**	0.05	0.15	0.5	1.5	5
***cis*-Chlordane (α)**	0.05	0.15	0.5	1.5	5
***trans*-Nonachlor**	0.05	0.15	0.5	1.5	5
***cis*-Nonachlor**	0.05	0.15	0.5	1.5	5
Oxychlordane	0.5	1.5	5	15	50
Heptachlor	0.1	0.3	1	3	10
***trans*-Heptachlor Epoxide (A isomer)**	0.1	0.3	1	3	10
***cis*-Heptachlor Epoxide (B isomer)**	0.1	0.3	1	3	10
Mirex	0.1	0.3	1	3	10
Labeled					
Hexachlorobenzene ($^{13}C_6$,99%)	1	1	1	1	1
Aldrin ($^{13}C_{12}$,99%)	10	10	10	10	10
Dieldrin ($^{13}C_{12}$,99%)	2	2	2	2	2
Endrin ($^{13}C_{12}$,99%)	10	10	10	10	10
4,4′-DDT ($^{13}C_{12}$,99%)	10	10	10	10	10
4,4′-DDE ($^{13}C_{12}$,99%)	2	2	2	2	2
4,4′-DDD ($^{13}C_{12}$,99%)	10	10	10	10	10
2,4′-DDT ($^{13}C_{12}$,99%)	10	10	10	10	10
2,4′-DDE ($^{13}C_{12}$,99%)	2	2	2	2	2
2,4′-DDD ($^{13}C_{12}$,99%)	10	10	10	10	10
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	1	1	1	1	1
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	1	1	1	1	1
***cis*-Nonachlor ($^{13}C_{10}$,99%)**	1	1	1	1	1
Oxychlordane ($^{13}C_{10}$,99%)	10	10	10	10	10
Heptachlor ($^{13}C_{10}$,99%)	2	2	2	2	2
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	2	2	2	2	2
Mirex ($^{13}C_{10}$,99%)	2	2	2	2	2

Pesticide Standard Mixtures

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

Labeled	(ng/mL)
Hexachlorobenzene ($^{13}C_6$,99%)	10
Aldrin ($^{13}C_{12}$,99%)	100
Dieldrin ($^{13}C_{12}$,99%)	20
Endrin ($^{13}C_{12}$,99%)	100
4,4′-DDT ($^{13}C_{12}$,99%)	100
4,4′-DDE ($^{13}C_{12}$,99%)	20
4,4′-DDD ($^{13}C_{12}$,99%)	100
2,4′-DDT ($^{13}C_{12}$,99%)	100
2,4′-DDE ($^{13}C_{12}$,99%)	20
2,4′-DDD ($^{13}C_{12}$,99%)	100
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	10
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	10
***cis*-Nonachlor ($^{13}C_{10}$,99%)**	10
Oxychlordane ($^{13}C_{10}$,99%)	100
Heptachlor ($^{13}C_{10}$,99%)	20
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	20
Mirex ($^{13}C_{10}$,99%)	20

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

Unlabeled	CS1	CS2	CS3	CS4	CS5
α-BHC (α-HCH)	0.1	0.3	1	3	10
β-BHC (β-HCH)	0.1	0.3	1	3	10
Lindane (γ-BHC) (γ-HCH)	0.1	0.3	1	3	10
δ-BHC (δ-HCH)	0.1	0.3	1	3	10
Labeled					
α-BHC (α-HCH) ($^{13}C_6$,99%)	2	2	2	2	2
β-BHC (β-HCH) ($^{13}C_6$,99%)	2	2	2	2	2
Lindane (γ-BHC) (γ-HCH) ($^{13}C_6$,99%)	2	2	2	2	2
δ-BHC (δ-HCH) ($^{13}C_6$,99%)	2	2	2	2	2

NEW	ES-5344	**POPs HRMS HCH Cleanup Spike**	1.2 mL in Nonane
NEW	ES-5344-50X-0.5	**POPs HRMS HCH Cleanup Spike**	0.5 mL in Nonane

Labeled	ES-5344	ES-5344-50X-0.5
α-BHC (α-HCH) ($^{13}C_6$,99%)	20	1000
β-BHC (β-HCH) ($^{13}C_6$,99%)	20	1000
Lindane (γ-BHC) (γ-HCH) ($^{13}C_6$,99%)	20	1000
δ-BHC (δ-HCH) ($^{13}C_6$,99%)	20	1000

Pesticide Standard Mixtures

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

Unlabeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
Hexachlorobenzene		1.0	2.5	10	35	100	300	500	1000		
β-BHC (β-HCH)		1.0	2.5	10	35	100	300	500	1000		
Lindane		1.0	2.5	10	35	100	300	500	1000		
***cis*-Heptachlor epoxide (B isomer)**		1.0	2.5	10	35	100	300	500	1000		
Oxychlordane		1.0	2.5	10	35	100	300	500	1000		
***trans*-Nonachlor**		1.0	2.5	10	35	100	300	500	1000		
4,4′-DDE		1.0	2.5	10	35	100	300	500	1000	3000	6000
Dieldrin		1.0	2.5	10	35	100	300	500	1000		
4,4′-DDT		1.0	2.5	10	35	100	300	500	1000	3000	6000
4,4′-DDT		1.0	2.5	10	35	100	300	500	1000		
Mirex		1.0	2.5	10	35	100	300	500	1000		
Dechlorane Plus *syn*		1.0	2.5	10	35	100	300	500	1000		
Dechlorane Plus *anti*		1.0	2.5	10	35	100	300	500	1000		
Labeled											
Hexachlorobenzene ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
Dieldrin ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
β-BHC (β-HCH) ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
Lindane ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**		75	75	75	75	75	75	75	75	75	75
Oxychlordane ($^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
***trans*-Nonachlor ($^{13}C_{10}$,99%)**		75	75	75	75	75	75	75	75	75	75
Mirex ($^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
2,4′-DDT ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
4,4′-DDT ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
4,4′-DDE ($^{13}C_{12}$,99%)		150	150	150	150	150	150	150	150	150	150
1,2,3,4-TCDD ($^{13}C_6$,99%)		25	25	25	25	25	25	25	25	25	25
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	100	100	100	100	100	100	100	100	100	100
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139**	75	75	75	75	75	75	75	75	75	75

ES-5020	**Persistent Pesticide Reconstituting Solution**	10 x 1 mL in Nonane
ES-5020-1ML	**Persistent Pesticide Reconstituting Solution**	1 mL in Nonane

Labeled	IUPAC	(ng/mL)
3,4,4′-TriCB ($^{13}C_{12}$,99%)	**37**	100
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	100
1,2,3,4-TCDD ($^{13}C_6$,99%)		25
2,3,7,8-TCDD ($^{13}C_{12}$,99%)		25

NEW	ES-5321	**Multi-Analyte Recovery Spiking Standard**	10 mL in 88% Hexane/ 2% Dodecane/10% Nonane

Labeled	IUPAC	
1,2,3,4-TCDD ($^{13}C_6$,99%)		2.5
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	10
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	7.5
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139**	7.5

Pesticide Standard Mixtures

Catalog #	Compound	Amount
ES-5021	**Persistent Pesticide Spiking Solution**	2.5 mL in Nonane

Labeled	(ng/mL)
Hexachlorobenzene ($^{13}C_6$,99%)	100
Dieldrin ($^{13}C_{12}$,99%)	100
β-HCH ($^{13}C_6$,99%)	100
Lindane (γ-HCH) ($^{13}C_6$,99%)	100
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	100
Oxychlordane ($^{13}C_{10}$,99%)	100
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	100
Mirex ($^{13}C_{10}$,99%)	100
2,4′-DDT ($^{13}C_{12}$,99%)	100
4,4′-DDT ($^{13}C_{12}$,99%)	100
4,4′-DDE ($^{13}C_{12}$,99%)	250

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

Labeled	ES-5177-500X-N-0.5	ES-5177-5X10
Hexachlorobenzene ($^{13}C_6$,99%)	5000	10
Dieldrin ($^{13}C_{12}$,99%)	5000	10
β-HCH ($^{13}C_6$,99%)	5000	10
Lindane (γ-HCH) ($^{13}C_6$,99%)	5000	10
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	5000	10
Oxychlordane ($^{13}C_{10}$,99%)	5000	10
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	5000	10
Mirex ($^{13}C_{10}$,99%)	5000	10
2,4′-DDT ($^{13}C_{12}$,99%)	5000	10
4,4′-DDT ($^{13}C_{12}$,99%)	5000	10
4,4′-DDE ($^{13}C_{12}$,99%)	12,500	25

ES-5261-1.2	**Persistent Organic Pollutants Cleanup Spike**	1.2 mL in Nonane

Labeled	
Hexachlorobenzene ($^{13}C_6$,99%)	1000
α-HCH ($^{13}C_6$,99%)	1000
β-HCH ($^{13}C_6$,99%)	1000
Lindane (γ-HCH) ($^{13}C_6$,99%)	1000
Aldrin ($^{13}C_{12}$,99%)	1000
Dieldrin ($^{13}C_{12}$,99%)	1000
Endrin ($^{13}C_{12}$,99%)	1000
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**	1000
Oxychlordane ($^{13}C_{10}$,99%)	1000
***trans*-Nonachlor ($^{13}C_{10}$,99%)**	1000
Heptachlor ($^{13}C_{10}$,99%)	1000
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**	1000
4,4′-DDT (ring-$^{13}C_{12}$,99%)	1000
4,4′-DDE (ring-$^{13}C_{12}$,99%)	1000
4,4′-DDD (ring-$^{13}C_{12}$,99%)	1000

Pesticide Standard Mixtures

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

Unlabeled	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
Parlar 26	0.2	0.5	1	2.5	10	75	100	500		
Parlar 50	0.2	0.5	1	2.5	10	75	100	500		
Parlar 62	0.2	0.5	1	2.5	10	75	100	500		
Hexachlorobenzene	0.2	0.5	1	2.5	10	75	100	500		
β-BHC (β-HCH)	0.2	0.5	1	2.5	10	75	100	500		
Lindane	0.2	0.5	1	2.5	10	75	100	500		
Aldrin	0.2	0.5	1	2.5	10	75	100	500		
***cis*-Heptachlor epoxide (B isomer)**	0.2	0.5	1	2.5	10	75	100	500		
Oxychlordane	0.2	0.5	1	2.5	10	75	100	500		
***trans*-Nonachlor**	0.2	0.5	1	2.5	10	75	100	500		
4,4′-DDE	0.2	0.5	1	2.5	10	75	100	500	3000	7500
Dieldrin	0.2	0.5	1	2.5	10	75	100	500		
Endrin	0.2	0.5	1	2.5	10	75	100	500		
Isodrin	0.2	0.5	1	2.5	10	75	100	500		
2,4′-DDT	0.2	0.5	1	2.5	10	75	100	500		
4,4′-DDT	0.2	0.5	1	2.5	10	75	100	500		
Mirex	0.2	0.5	1	2.5	10	75	100	500		
α-BHC (α-HCH)	0.2	0.5	1	2.5	10	75	100	500		
***cis*-Chlordane (α)**	0.2	0.5	1	2.5	10	75	100	500		
***trans*-Chlordane (γ)**	0.2	0.5	1	2.5	10	75	100	500		
2,4′-DDE	0.2	0.5	1	2.5	10	75	100	500		
***cis*-Nonachlor**	0.2	0.5	1	2.5	10	75	100	500		
Methoxychlor	0.2	0.5	1	2.5	10	75	100	500		
Pentachloroanisole	0.2	0.5	1	2.5	10	75	100	500		
Octachlorostyrene	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
1,2,3,4-TCDD ($^{13}C_6$,99%)		25	25	25	25	25	25	25	25	25	25
2,2′,3,3′,4,5,5′,6,6′-NonaCB ($^{13}C_{12}$,99%)	**208**	100	100	100	100	100	100	100	100	100	100
3,3′,4,4′-TetraBDE ($^{13}C_{12}$,99%)	**77**	75	75	75	75	75	75	75	75	75	75
2,2′,3,4,4′,6-HexaBDE ($^{13}C_{12}$,99%)	**139**	75	75	75	75	75	75	75	75	75	75
Parlar 26 (U-$^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
Parlar 50 (U-$^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
Parlar 62 (U-$^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
Hexachlorobenzene ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
β-HCH ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
Lindane ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
Aldrin ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
***cis*-Heptachlor epoxide (B isomer) ($^{13}C_{10}$,99%)**		75	75	75	75	75	75	75	75	75	75
Oxychlordane ($^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
***trans*-Nonachlor ($^{13}C_{10}$,99%)**		75	75	75	75	75	75	75	75	75	75
4,4′-DDE ($^{13}C_{12}$,99%)		150	150	150	150	150	150	150	150	150	150
Dieldrin ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
Endrin ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
Isodrin ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
2,4′-DDT ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
4,4′-DDT ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
Mirex ($^{13}C_{10}$,99%)		75	75	75	75	75	75	75	75	75	75
α-HCH ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
***trans*-Chlordane (γ) ($^{13}C_{10}$,99%)**		75	75	75	75	75	75	75	75	75	75
2,4′-DDE ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
***cis*-Nonachlor ($^{13}C_{10}$,99%)**		75	75	75	75	75	75	75	75	75	75
Methoxychlor ($^{13}C_{12}$,99%)		75	75	75	75	75	75	75	75	75	75
Pentachloroanisole ($^{13}C_6$,99%)		75	75	75	75	75	75	75	75	75	75
Octachlorostyrene ($^{13}C_8$,99%)		75	75	75	75	75	75	75	75	75	75

Chemical Weapon Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
CDNLM-6786-1.2	**Aminomethylphosphonic acid (AMPA) (^{13}C,99%;^{15}N,98%, methylene-D_2,98%)**	*CH_4D_2*NO_3P	100 µg/mL in H_2O	1.2 mL
ERC-034	**Cyclohexyl methylphosphonic acid (unlabeled)**	$C_7H_{15}O_3P$	1000 µg/mL in Methanol	1.2 mL
ERD-117	***O,O*-Diethyl dithiophosphate, potassium salt (unlabeled)**	$C_4H_{10}KO_2PS$	1000 µg/mL in Methanol	1.2 mL
NEW ERD-155	***O,O*-Dimethyl dithiophosphate, sodium salt (unlabeled)**	$C_2H_6NaO_2PS_2$	1000 µg/mL in Methanol	1.2 mL
ERD-118	**Diethyl hydrogen phosphate (unlabeled)**	$C_4H_{11}O_4P$	1000 µg/mL in Methanol	1.2 mL
DLM-4852-1.2	***O,O*-Diethyl thiophosphate, potassium salt (diethyl-D_{10},98%)**	$C_4D_{10}KO_3PS$	100 µg/mL in Methanol	1.2 mL
ERD-119	***O,O*-Diethyl thiophosphate, potassium salt (unlabeled)**	$C_4H_{10}KO_3PS$	1000 µg/mL in Methanol	1.2 mL
ERD-086	**Diisopropyl methylphosphonate (D_{14},98%)**	$C_7H_3D_{14}O_3P$	1000 µg/mL in Methanol	1.2 mL
ERD-083	**Diisopropyl methylphosphonate (unlabeled)**	$C_7H_{17}O_3P$	1000 µg/mL in Methanol	1.2 mL
ERD-121	**Dimethyl hydrogen phosphate (unlabeled)**	$(CH_3O)_2P(O)OH$	1000 µg/mL in Methanol	1.2 mL
ULM-4617-1.2	***O,O*-Dimethyl hydrogen thiophosphate (unlabeled)**	$C_2H_6NaO_3PS$	1000 µg/mL in Methanol	1.2 mL
ULM-6089	***O,S*-Dimethyl thiophosphate, sodium salt (unlabeled)**	$C_2H_6NaO_3PS$		Inquire
ERD-085	**1,4-Dithiane (D_4,98%)**	$C_4H_4D4S_2$	1000 µg/mL in Methanol	1.2 mL
CLM-6090	**Ethyl dimethylamidophosphate, sodium salt ($^{13}C_4$,99%)**	*$C_4H_{11}NPO_3Na$		Inquire
ULM-6091-1.2	**Ethyl dimethylamidophosphate, sodium salt (unlabeled)**	$C_4H_{11}NO_3PNa$	1000 µg/mL in Methanol	1.2 mL
DLM-6098-1.2	**Ethyl hydrogen methylphosphonate (ethyl-D_5,98%)**	$C_3H_4D_5O_3P$	100 µg/mL in Methanol	1.2 mL
ERE-024	**Ethyl methylphosphonic acid (unlabeled)**	$C_3H_9O_3P$	1000 µg/mL in Methanol	1.2 mL
CLM-4868-1.2	**1,2-Bis(2-hydroxyethyl thio) ethane (bis-2-hydroxyethyl-$^{13}C_4$,99%)**	$HO(*CH_2)_2S(CH_2)_2S(*CH_2)_2OH$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4874-1.2	**1,5-Bis(2-hydroxyethyl thio)-*n*-pentane (bis-2-hydroxyethyl-$^{13}C_4$,99%)**	$HO(*CH_2)_2S(CH_2)_5S(*CH_2)_2OH$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4872-1.2	**1,4-Bis(2-hydroxyethyl thio)-*n*-butane (bis-2-hydroxyethyl-$^{13}C_4$,99%)**	$HO(*CH_2)_2S(CH_2)_4S(*CH_2)_2OH$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4864-1.2	**Bis(2-hydroxyethyl thioethyl) ether (bis-2-hydroxyethyl-$^{13}C_4$,99%)**	*$C_4C_4H_{18}O_3S_2$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4866-1.2	**Bis(2-hydroxyethyl thio) methane (bis-2-hydroxyethyl-$^{13}C_4$,99%)**	*$C_4C_1H_{12}O_2S_2$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4870-1.2	**1,3-Bis(2-hydroxyethyl thio) propane (bis-2-hydroxyethyl-$^{13}C_4$,99%)**	$HO(*CH_2)_2S(CH_2)_3S(*CH_2)_2OH$	100 µg/mL in Acetonitrile	1.2 mL
NEW ERI-026	**Isobutyl hydrogen methylphosphonate (unlabeled)**	$C_5H_{13}O_3P$	1000 µg/mL in Methanol	1.2 mL
ERI-015	**Isopropyl methylphosphonic acid (unlabeled)**	$C_4H_{11}O_3P$	1000 µg/mL in Methanol	1.2 mL
ERI-017	**Isopropyl methylphosphonic acid (D_7,98%)**	$C_4H_4D_7O_3P$	1000 µg/mL in Methanol	1.2 mL

Chemical Weapon Metabolite Standards

Catalog #	Compound	Formula	Concentration	Amount
DLM-6196-1.2	**Methylphosphonic acid (methyl-D_3,98%)**	$CD_3H_2O_3P$	100 µg/mL in Methanol	1.2 mL
CDLM-6100-1.2	**Methylphosphonic acid (^{13}C,99%;methyl-D_3,98%)**	$*CD_3H_2O_3P$	100 µg/mL in Methanol	1.2 mL
ERM-038	**Methylphosphonic acid (unlabeled)**	CH_5O_3P	1000 µg/mL in Methanol	1.2 mL
ERP-083	**Pinacolyl methylphosphonic acid (unlabeled)**	$C_7H_{17}O_3P$	1000 µg/mL in Methanol	1.2 mL
ERQ-003	**Quinuclidinyl benzilate (unlabeled)**	$C_{21}H_{23}NO_3$	1000 µg/mL in Acetonitrile	1.2 mL
CLM-6106-1.2	**Ricinine (ring-$^{13}C_5$,99%;cyano-^{13}C,99%)**	$C_2*C_6H_8N_2O_2$	100 µg/mL in Acetonitrile	1.2 mL
CLM-4806	**Thiodiglycol ($^{13}C_4$,99%)**	$S(*CH_2*CH_2OH)_2$		Inquire
ERT-054	**Thiodiglycol (D_8,98%)**	$C_4H_2D_8O_2S$	1000 µg/mL in Methanol	1.2 mL
ERT-053	**Thiodiglycol (unlabeled)**	$C_4H_{10}O_2S$	1000 µg/mL in Methanol	1.2 mL
ERT-052	**Thiodiglycol sulfoxide (unlabeled)**	$C_4H_{10}O_3S$	1000 µg/mL in Methanol	1.2 mL
CLM-6620-1.2	**1,2,2-Trimethylpropyl hydrogen methylphosphonate (Pinacolyl hydrogen methylphosphonate) (trimethylpropyl-$^{13}C_6$,99%)**	$*C_6CH_{17}O_3P$	100 µg/mL in Methanol	1.2 mL

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