

An aerial photograph showing a coastal region. On the left, a large body of water with a blue-green hue meets a white sandy beach. To the right, a green island with a prominent dark, forested area is visible. The background shows a continuation of the coastline and water.

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

Unlabeled “Certified” PCB Standards

While CIL's primary business is isotopically labeled standards, it is important to remember that the accuracy and precision of a quantitative analysis is dependent upon the accuracy and precision of the unlabeled (native) standards. In the past, CIL utilized commercially available native standards from multiple vendors for the confirmation of our isotopically labeled standards. It was discovered, however, that there can be substantial variability among the commercial native standards. Thus CIL initiated the “Certified” PCB standards program. CIL prepares native “Certified” standards using good laboratory practice (GLP). Individual, native, crystalline PCB isomers (98%+ purity) are weighed in triplicate on a microbalance calibrated with NIST traceable Class S weights, and formulated to specific concentration. Triplicate analyses of each of the three solutions in 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 ¹³C-labeled PCB standards to meet the growing needs of researchers utilizing Isotope Dilution MS. All ¹³C-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 ¹³C-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 ¹³C-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-*p*-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 ¹³C-non-ortho DL-PCBs, native content, other PCB congeners and PCDD/Fs.

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

Isotopic Enrichment: 99% by GC/MS

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

- Native Content: <0.1% by GC/MS SI
- ¹³C-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

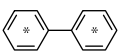
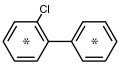
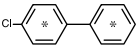
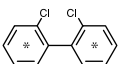
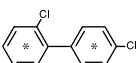
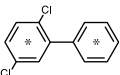
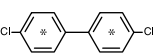
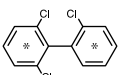
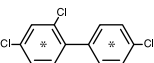
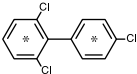
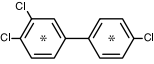
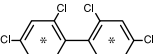
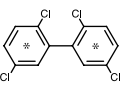
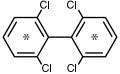
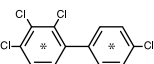
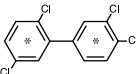
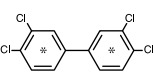
In 2006, CIL collaborated with the CEN (European Committee for Standardization) organizing laboratory to develop and define PCB Calibration series and ¹³C₁₂-labeled spiking solutions to be used with method CEN/TS 1948-4. CIL supplied these standards to the organizing laboratory for use in their Interlaboratory Evaluation Study, and now these same standards are available to you from CIL.

NEW Comprehensive Native PCB Mixtures

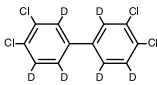
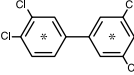
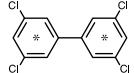
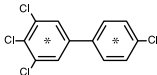
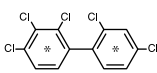
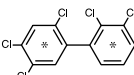
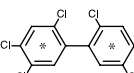
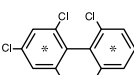
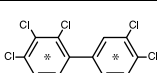
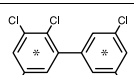
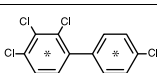
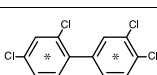
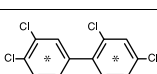
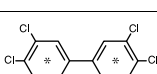
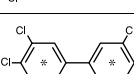
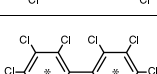
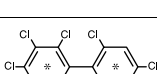
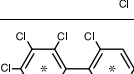
CIL has produced two large mixes of unlabeled PCBs, formulated entirely from CIL's PCB “Certified Standards” individual stock solutions. The Comprehensive Native PCB Mixture is a multipurpose mixture that includes all the WHO Dioxin-Like PCBs that have been assigned TEFs, the predominant congeners, and 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

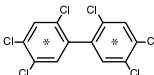
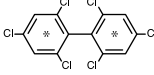
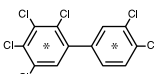
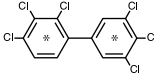
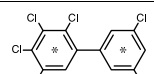
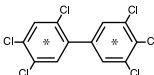
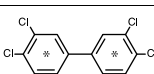
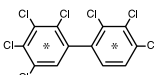
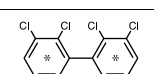
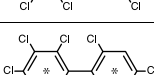
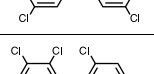
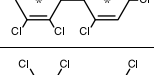
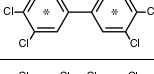
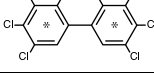
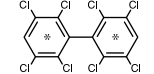
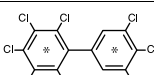
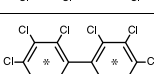
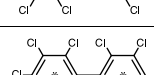
Isotope Labeled Individual PCB Standards

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

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

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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
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Labeled	IUPAC	(ng/mL)
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
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Labeled	IUPAC	(ng/mL)
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

All concentrations are in ng/mL (ppb)

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 (¹³C₁₂,99%)	60	100	10
3,3',4,5,5'-PentaCB (¹³C₁₂,99%)	127	100	10
2,3,3',4,5,5'-HexaCB (¹³C₁₂,99%)	169	100	10

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		EC-5372	EC-5372-1/10X-10
3,4,4',5-TetraCB (¹³C₁₂,99%)	81	100	10
3,3',4,4'-TetraCB (¹³C₁₂,99%)	77	100	10
3,3',4,4',5-PentaCB (¹³C₁₂,99%)	126	100	10
3,3',4,4',5,5'-HexaCB (¹³C₁₂,99%)	169	100	10
2,3,3',4,4'-PentaCB (¹³C₁₂,99%)	105	100	10
2,3,4,4',5-PentaCB (¹³C₁₂,99%)	114	100	10
2,3',4,4',5-PentaCB (¹³C₁₂,99%)	118	100	10
2',3,4,4',5-PentaCB (¹³C₁₂,99%)	123	100	10
2,3,3',4,4',5-HexaCB (¹³C₁₂,99%)	156	100	10
2,3,3',4,4',5'-HexaCB (¹³C₁₂,99%)	157	100	10
2,3',4,4',5,5'-HexaCB (¹³C₁₂,99%)	167	100	10
2,3,3',4,4',5,5'-HeptaCB (¹³C₁₂,99%)	189	100	10

NEW EC-5371	EN-1948-4 PCB Recovery Standard	1.2 mL in Nonane
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Labeled		
2,3',4',5-TetraCB (¹³C₁₂,99%)	70	100
2,3,3',5,5'-PentaCB (¹³C₁₂,99%)	111	100
2,2',3,3',4,4',5-HeptaCB (¹³C₁₂,99%)	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

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
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 (¹³C₁₂,99%)	81	4	10	10	10	10	10	10
3,3',4,4'-TetraCB (¹³C₁₂,99%)	77	4	10	10	10	10	10	10
3,3',4,4',5-PentaCB (¹³C₁₂,99%)	126	4	10	10	10	10	10	10
3,3',4,4',5,5'-HexaCB (¹³C₁₂,99%)	169	4	10	10	10	10	10	10
2',3,4,4',5-PentaCB (¹³C₁₂,99%)	123	4	10	10	10	10	10	10
2,3',4,4',5-PentaCB (¹³C₁₂,99%)	118	8	20	20	20	20	20	20
2,3,3',4,4'-PentaCB (¹³C₁₂,99%)	105	8	20	20	20	20	20	20
2,3,4,4',5-PentaCB (¹³C₁₂,99%)	114	4	10	10	10	10	10	10
2,3',4,4',5,5'-HexaCB (¹³C₁₂,99%)	167	4	10	10	10	10	10	10
2,3,3',4,4',5-HexaCB (¹³C₁₂,99%)	156	8	20	20	20	20	20	20
2,3,3',4,4',5'-HexaCB (¹³C₁₂,99%)	157	4	10	10	10	10	10	10
2,3,3',4,4',5,5'-HeptaCB (¹³C₁₂,99%)	189	4	10	10	10	10	10	10
2,2',3,3',4,4',5-HeptaCB (¹³C₁₂,99%)	170	4	10	10	10	10	10	10
2,3',4',5-TetraCB (¹³C₁₂,99%)	70	4	10	10	10	10	10	10
2,3,3',5,5'-PentaCB (¹³C₁₂,99%)	111	4	10	10	10	10	10	10
2,2',3,4,4',5'-HexaCB (¹³C₁₂,99%)	138	4	10	10	10	10	10	10
3,3',4,5'-TetraCB (¹³C₁₂,99%)	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

NEW EC-5420	Modified JIS PCB Alternate B Syringe Spike	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
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 (¹³C₁₂,99%)	81	10	10	10	10	10	10
3,3',4,4'-TetraCB (¹³C₁₂,99%)	77	10	10	10	10	10	10
3,3',4,4',5-PentaCB (¹³C₁₂,99%)	126	10	10	10	10	10	10
3,3',4,4',5,5'-HexaCB (¹³C₁₂,99%)	169	10	10	10	10	10	10
2',3,4,4',5-PentaCB (¹³C₁₂,99%)	123	10	10	10	10	10	10
2,3',4,4',5-PentaCB (¹³C₁₂,99%)	118	10	10	10	10	10	10
2,3,3',4,4'-PentaCB (¹³C₁₂,99%)	105	10	10	10	10	10	10
2,3,4,4',5-PentaCB (¹³C₁₂,99%)	114	10	10	10	10	10	10
2,3',4,4',5,5'-HexaCB (¹³C₁₂,99%)	167	10	10	10	10	10	10
2,3,3',4,4',5-HexaCB (¹³C₁₂,99%)	156	10	10	10	10	10	10
2,3,3',4,4',5'-HexaCB (¹³C₁₂,99%)	157	10	10	10	10	10	10
2,3,3',4,4',5,5'-HeptaCB (¹³C₁₂,99%)	189	10	10	10	10	10	10
2,2',3,3',4,4',5-HeptaCB (¹³C₁₂,99%)	170	10	10	10	10	10	10
2,2',3,4,4',5,5'-HeptaCB (¹³C₁₂,99%)	180	10	10	10	10	10	10
2,3',4',5-TetraCB (¹³C₁₂,99%)	70	10	10	10	10	10	10
2,3,3',5,5'-PentaCB (¹³C₁₂,99%)	111	10	10	10	10	10	10
2,2',3,4,4',5'-HexaCB (¹³C₁₂,99%)	138	10	10	10	10	10	10
2,2',3,3',5,5',6-HeptaCB (¹³C₁₂,99%)	178	10	10	10	10	10	10
3,3',4,5'-TetraCB (¹³C₁₂,99%)	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
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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
2,2',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
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Labeled	IUPAC	(ng/mL)
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		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			
	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		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			
	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

NEW EC-5424	DL-PCB RH12 Sampling Spike	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
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

NEW EC-5423	DL-PCB RH12 Syringe Spike	1.2 mL in Nonane
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Labeled	IUPAC	(ng/mL)
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																								
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>2,4,4'-TriCB (¹³C₁₂,99%)</td><td>28</td><td>5000</td></tr> <tr> <td>2,2',5,5'-TetraCB (¹³C₁₂,99%)</td><td>52</td><td>5000</td></tr> <tr> <td>2,2',4,5,5'-PentaCB (¹³C₁₂,99%)</td><td>101</td><td>5000</td></tr> <tr> <td>2,2',3,4,4',5'-HexaCB (¹³C₁₂,99%)</td><td>138</td><td>5000</td></tr> <tr> <td>2,2',4,4',5,5'-HexaCB (¹³C₁₂,99%)</td><td>153</td><td>5000</td></tr> <tr> <td>2,2',3,4,4',5,5'-HeptaCB (¹³C₁₂,99%)</td><td>180</td><td>5000</td></tr> <tr> <td>DecaCB (¹³C₁₂,99%)</td><td>209</td><td>5000</td></tr> </table>	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	
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																								
	<table> <tr> <th>Unlabeled</th><th></th><th></th></tr> <tr> <td>2,4,4'-TriCB</td><td>28</td><td>5000</td></tr> <tr> <td>2,2',5,5'-TetraCB</td><td>52</td><td>5000</td></tr> <tr> <td>2,2',4,5,5'-PentaCB</td><td>101</td><td>5000</td></tr> <tr> <td>2,2',3,4,4',5'-HexaCB</td><td>138</td><td>5000</td></tr> <tr> <td>2,2',4,4',5,5'-HexaCB</td><td>153</td><td>5000</td></tr> <tr> <td>2,2',3,4,4',5,5'-HeptaCB</td><td>180</td><td>5000</td></tr> <tr> <td>DecaCB</td><td>209</td><td>5000</td></tr> </table>	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	
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 (¹³C₁₂,99%)	28	10	10	10	10
2,3',4',5-TetraCB (¹³C₁₂,99%)	70	10	10	10	10
2,2',5,5'-TetraCB (¹³C₁₂,99%)	52	10	10	10	10
2,2',4,5,5'-PentaCB (¹³C₁₂,99%)	101	10	10	10	10
2,3',4,4',5-PentaCB (¹³C₁₂,99%)	118	10	10	10	10
2,2',3,4,4',5'-HexaCB (¹³C₁₂,99%)	138	10	10	10	10
2,2',4,4',5,5'-HexaCB (¹³C₁₂,99%)	153	10	10	10	10
2,2',3,4,5,5'-HexaCB (¹³C₁₂,99%)	141	10	10	10	10
2,2',3,4,4',5,5'-HeptaCB (¹³C₁₂,99%)	180	10	10	10	10

NEW EC-5450	Rapid PCB Screening Syringe Spike	1.2 mL in Nonane
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Labeled	(ng/mL)
2,3',4',5-TetraCB (¹³C₁₂,99%)	70
2,3',4,4',5-PentaCB (¹³C₁₂,99%)	118
2,2',3,4,5,5'-HexaCB (¹³C₁₂,99%)	141

NEW EC-5453	Rapid PCB Screening Native PAR Solution	0.5 mL in Nonane
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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																																										
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>2,4',6-TriCB (¹³C₁₂,99%)</td><td>32</td><td>2000</td></tr> <tr> <td>2,3',4',5-TetraCB (¹³C₁₂,99%)</td><td>70</td><td>2000</td></tr> <tr> <td>3,3',4,5,5'-PentaCB (¹³C₁₂,99%)</td><td>127</td><td>2000</td></tr> <tr> <td>2,2',3,3',4,4'-HexaCB (¹³C₁₂,99%)</td><td>128</td><td>2000</td></tr> <tr> <td>2,2',3,3',4,4',5-HeptaCB (¹³C₁₂,99%)</td><td>170</td><td>2000</td></tr> </table>	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																									
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																																										
	<table> <tr> <th>Unlabeled</th><th></th><th></th></tr> <tr> <td>4-MonoCB</td><td>3</td><td>2000</td></tr> <tr> <td>2,4'-DiCB</td><td>8</td><td>2000</td></tr> <tr> <td>2,4,4'-TriCB</td><td>28</td><td>2000</td></tr> <tr> <td>2,2',5,5'-TetraCB</td><td>52</td><td>2000</td></tr> <tr> <td>2,2',4,5,5'-PentaCB</td><td>101</td><td>2000</td></tr> <tr> <td>2,3',4,4',5-PentaCB</td><td>118</td><td>2000</td></tr> <tr> <td>2,3,4,4',5-PentaCB</td><td>114</td><td>2000</td></tr> <tr> <td>2,2',3,4,4',5'-HexaCB</td><td>138</td><td>2000</td></tr> <tr> <td>2,2',4,4',5,5'-HexaCB</td><td>153</td><td>2000</td></tr> <tr> <td>2,2',3,4,4',5,5'-HeptaCB</td><td>180</td><td>2000</td></tr> <tr> <td>2,2',3,3',4,4',5,5'-OctaCB</td><td>194</td><td>2000</td></tr> <tr> <td>2,2',3,3',4,4',5,5',6-NonaCB</td><td>206</td><td>2000</td></tr> <tr> <td>DecaCB</td><td>209</td><td>2000</td></tr> </table>	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	
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																																										
	<table> <tr> <th>Labeled</th><th></th><th></th></tr> <tr> <td>4-MonoCB (¹³C₁₂,99%)</td><td>3</td><td>1000</td></tr> <tr> <td>4,4'-DiCB (¹³C₁₂,99%)</td><td>15</td><td>1000</td></tr> <tr> <td>2,4,4'-TriCB (¹³C₁₂,99%)</td><td>28</td><td>1000</td></tr> <tr> <td>2,2',5,5'-TetraCB (¹³C₁₂,99%)</td><td>52</td><td>1000</td></tr> <tr> <td>2,3',4,4',5-PentaCB (¹³C₁₂,99%)</td><td>118</td><td>1000</td></tr> <tr> <td>2,2',4,4',5,5'-HexaCB (¹³C₁₂,99%)</td><td>153</td><td>1000</td></tr> <tr> <td>2,2',3,4,4',5,5'-HeptaCB (¹³C₁₂,99%)</td><td>180</td><td>1000</td></tr> <tr> <td>2,2',3,3',4,4',5,5'-OctaCB (¹³C₁₂,99%)</td><td>194</td><td>1000</td></tr> <tr> <td>2,2',3,3',4,4',5,5',6'-NonaCB (¹³C₁₂,99%)</td><td>208</td><td>1000</td></tr> <tr> <td>DecaCB (¹³C₁₂,99%)</td><td>209</td><td>1000</td></tr> </table>	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',4,4',5,5',6'-NonaCB (¹³ C ₁₂ ,99%)	208	1000	DecaCB (¹³ C ₁₂ ,99%)	209	1000										
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',4,4',5,5',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		

(continued on next page)

CDC PCB Standard Mixtures

(continued from previous page)

All concentrations are in ng/mL (ppb)

Labeled	IUPAC	CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8	CS9	CS10
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
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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
2,2',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
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Labeled	IUPAC	(ng/mL)
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																											
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>77</td><td>5000</td></tr> <tr> <td>3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>126</td><td>5000</td></tr> <tr> <td>3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>169</td><td>5000</td></tr> </table>	Labeled	IUPAC	(ng/mL)	3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	5000	3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	126	5000	3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	169	5000																
Labeled	IUPAC	(ng/mL)																											
3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	5000																											
3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	126	5000																											
3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	169	5000																											
EC-4187	Coplanar PCB Mixture	3 mL in Nonane																											
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>77</td><td>1000</td></tr> <tr> <td>3,4,4',5-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>81</td><td>1000</td></tr> <tr> <td>3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>126</td><td>1000</td></tr> <tr> <td>3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>169</td><td>1000</td></tr> </table>	Labeled	IUPAC	(ng/mL)	3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	1000	3,4,4',5-TetraCB ($^{13}\text{C}_{12}$,99%)	81	1000	3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	126	1000	3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	169	1000													
Labeled	IUPAC	(ng/mL)																											
3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	1000																											
3,4,4',5-TetraCB ($^{13}\text{C}_{12}$,99%)	81	1000																											
3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	126	1000																											
3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	169	1000																											
EC-4188	Mono-Ortho PCB Mixture – *High Purity	3 mL in Nonane																											
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>2,3,3',4,4'-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>105</td><td>1000</td></tr> <tr> <td>2,3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>114</td><td>1000</td></tr> <tr> <td>2,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>118</td><td>1000</td></tr> <tr> <td>2',3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>123</td><td>1000</td></tr> <tr> <td>2,3,3',4,4',5-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>156</td><td>1000</td></tr> <tr> <td>2,3,3',4,4',5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>157</td><td>1000</td></tr> <tr> <td>2,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>167</td><td>1000</td></tr> <tr> <td>2,3,3',4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)</td><td>189</td><td>1000</td></tr> </table>	Labeled	IUPAC	(ng/mL)	2,3,3',4,4'-PentaCB ($^{13}\text{C}_{12}$,99%)	105	1000	2,3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	114	1000	2,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	118	1000	2',3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	123	1000	2,3,3',4,4',5-HexaCB ($^{13}\text{C}_{12}$,99%)	156	1000	2,3,3',4,4',5'-HexaCB ($^{13}\text{C}_{12}$,99%)	157	1000	2,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	167	1000	2,3,3',4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)	189	1000	
Labeled	IUPAC	(ng/mL)																											
2,3,3',4,4'-PentaCB ($^{13}\text{C}_{12}$,99%)	105	1000																											
2,3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	114	1000																											
2,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	118	1000																											
2',3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	123	1000																											
2,3,3',4,4',5-HexaCB ($^{13}\text{C}_{12}$,99%)	156	1000																											
2,3,3',4,4',5'-HexaCB ($^{13}\text{C}_{12}$,99%)	157	1000																											
2,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	167	1000																											
2,3,3',4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)	189	1000																											
EC-4060	PCB Mixture	1.2 mL in Nonane																											
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>77</td><td>10,000</td></tr> <tr> <td>2,2',4,5,5'-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>101</td><td>10,000</td></tr> <tr> <td>2,2',3,4,5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>141</td><td>10,000</td></tr> <tr> <td>2,2',3,3',5,5',6-HeptaCB ($^{13}\text{C}_{12}$,99%)</td><td>178</td><td>10,000</td></tr> </table>	Labeled	IUPAC	(ng/mL)	3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	10,000	2,2',4,5,5'-PentaCB ($^{13}\text{C}_{12}$,99%)	101	10,000	2,2',3,4,5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	141	10,000	2,2',3,3',5,5',6-HeptaCB ($^{13}\text{C}_{12}$,99%)	178	10,000													
Labeled	IUPAC	(ng/mL)																											
3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	10,000																											
2,2',4,5,5'-PentaCB ($^{13}\text{C}_{12}$,99%)	101	10,000																											
2,2',3,4,5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	141	10,000																											
2,2',3,3',5,5',6-HeptaCB ($^{13}\text{C}_{12}$,99%)	178	10,000																											
EC-4938	PCB Mixture-A	3 mL in Nonane																											
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>77</td><td>1000</td></tr> <tr> <td>3,4,4',5-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>81</td><td>1000</td></tr> <tr> <td>2',3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>123</td><td>1000</td></tr> <tr> <td>3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>126</td><td>1000</td></tr> <tr> <td>3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>169</td><td>1000</td></tr> <tr> <td>2,2',3,4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)</td><td>180</td><td>1000</td></tr> </table>	Labeled	IUPAC	(ng/mL)	3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	1000	3,4,4',5-TetraCB ($^{13}\text{C}_{12}$,99%)	81	1000	2',3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	123	1000	3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	126	1000	3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	169	1000	2,2',3,4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)	180	1000							
Labeled	IUPAC	(ng/mL)																											
3,3',4,4'-TetraCB ($^{13}\text{C}_{12}$,99%)	77	1000																											
3,4,4',5-TetraCB ($^{13}\text{C}_{12}$,99%)	81	1000																											
2',3,4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	123	1000																											
3,3',4,4',5-PentaCB ($^{13}\text{C}_{12}$,99%)	126	1000																											
3,3',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	169	1000																											
2,2',3,4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)	180	1000																											
EC-4058	PCB Mixture	3 mL in Nonane																											
	<table> <tr> <th>Labeled</th><th>IUPAC</th><th>(ng/mL)</th></tr> <tr> <td>2,4,4'-TriCB ($^{13}\text{C}_{12}$,99%)</td><td>28</td><td>5000</td></tr> <tr> <td>2,2',5,5'-TetraCB ($^{13}\text{C}_{12}$,99%)</td><td>52</td><td>5000</td></tr> <tr> <td>2,2',4,5,5'-PentaCB ($^{13}\text{C}_{12}$,99%)</td><td>101</td><td>5000</td></tr> <tr> <td>2,2',3,4,4',5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>138</td><td>5000</td></tr> <tr> <td>2,2',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)</td><td>153</td><td>5000</td></tr> <tr> <td>2,2',3,4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)</td><td>180</td><td>5000</td></tr> <tr> <td>DecaCB ($^{13}\text{C}_{12}$,99%)</td><td>209</td><td>5000</td></tr> </table>	Labeled	IUPAC	(ng/mL)	2,4,4'-TriCB ($^{13}\text{C}_{12}$,99%)	28	5000	2,2',5,5'-TetraCB ($^{13}\text{C}_{12}$,99%)	52	5000	2,2',4,5,5'-PentaCB ($^{13}\text{C}_{12}$,99%)	101	5000	2,2',3,4,4',5'-HexaCB ($^{13}\text{C}_{12}$,99%)	138	5000	2,2',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	153	5000	2,2',3,4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)	180	5000	DecaCB ($^{13}\text{C}_{12}$,99%)	209	5000				
Labeled	IUPAC	(ng/mL)																											
2,4,4'-TriCB ($^{13}\text{C}_{12}$,99%)	28	5000																											
2,2',5,5'-TetraCB ($^{13}\text{C}_{12}$,99%)	52	5000																											
2,2',4,5,5'-PentaCB ($^{13}\text{C}_{12}$,99%)	101	5000																											
2,2',3,4,4',5'-HexaCB ($^{13}\text{C}_{12}$,99%)	138	5000																											
2,2',4,4',5,5'-HexaCB ($^{13}\text{C}_{12}$,99%)	153	5000																											
2,2',3,4,4',5,5'-HeptaCB ($^{13}\text{C}_{12}$,99%)	180	5000																											
DecaCB ($^{13}\text{C}_{12}$,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 (¹³C₁₂,99%)	79	2000
NEW EC-5180	PCB Sampling Spike	1.2 mL in Nonane	
	Labeled		
	3,3',4,5'-TetraCB (¹³C₁₂,99%)	79	100
NEW EC-5157-5	¹³C-Labeled PCB Standard (PCB-70 and PCB-170)	5 mL in Nonane	
	Labeled		
	2,3',4',5-TetraCB (¹³C₁₂,99%)	70	2
	2,2',3,3',4,4',5-HeptaCB (¹³C₁₂,99%)	170	2
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 (¹³C₁₂,99%)	70	100
	2,3,3',5,5'-PentaCB (¹³C₁₂,99%)	111	100
	2,2',3,4,4',5'-HexaCB (¹³C₁₂,99%)	138	100
NEW EC-5163	PCB Mixture (PCB-70/111/138/170)	1.2 mL in Nonane	
	Labeled		
	2,3',4',5-TetraCB (¹³C₁₂,99%)	70	1000
	2,3,3',5,5'-PentaCB (¹³C₁₂,99%)	111	1000
	2,2',3,4,4',5'-HexaCB (¹³C₁₂,99%)	138	1000
	2,2',3,3',4,4',5-HeptaCB (¹³C₁₂,99%)	170	1000
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 (¹³C₁₂,99%)	15	10
	2,3',4',5-TetraCB (¹³C₁₂,99%)	70	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
	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',4,4',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
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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
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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
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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
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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
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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
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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
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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

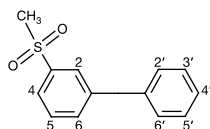
MEO-PCB

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 (MeSO₂-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-MeSO₂-PCB4-MeSO₂-PCB