

The image shows two individuals in full-body white protective suits, including hoods and respirators, working in a control room or laboratory. They are seated at a desk with a computer monitor and keyboard. The person on the left is looking at a document, while the person on the right is looking at the computer screen. The background features a large window or screen displaying data. The overall lighting is dim, with a strong yellowish-orange glow.

**Dioxin
and Furan
Individual
Standards**

Certified Reference Standards

CIL/Cerilliant polychlorinated dibenzo-p-dioxin (PCDD) and dibenzofuran (PCDF) reference standard preparation begins with the total synthesis of each isomer from known, well-characterized intermediates. Our QC Protocol specifies that all materials be tested to determine identity, isomer specificity, purity, and concentration prior to acceptance as a product. With few exceptions, our specifications require a chemical purity of $\geq 98\%$ for native material and chemical purity of $\geq 97\%$ for carbon-13 material. Prior to formulation, our solvents are screened for any detectable dioxin or furan impurities and purified when necessary. In addition to our exhaustive purity determinations, formulation accuracy is ensured by gravimetric preparations using modern analytical balances calibrated with NIST-traceable weights. Precision is guaranteed by multiple weighings/triplicate analysis, comparison to previous lots (when available), and comparison to the corresponding native or carbon-13 analog. Finally, homogeneity is determined by random sample analysis throughout the packaging process. The analytical results are detailed in a comprehensive Certificate of Analysis containing complete traceability documentation at no additional charge.

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

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

Battelle - Columbus Laboratories
Columbus, OH

Midwest Research Institute
Kansas City, MO

Centers for Disease Control
Atlanta, GA

Monsanto Company
St. Louis, MO

Dow Chemical Company
Midland, MI

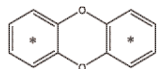
Triangle Labs
Research Triangle Park, NC

Ontario Ministry of the Environment
Rexdale, Ontario, Canada

Twin City Testing
St. Paul, MN

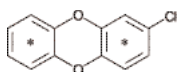
¹³C₁₂ Labeled Chlorodioxin Standards

Dibenzo-p-dioxin (¹³C₁₂, 99%)



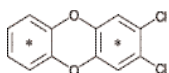
50 ± 5 µg/mL in Nonane
CLM-1544-1.2 1.2 mL

2-Monochlorodibenzo-p-dioxin (¹³C₁₂, 99%)



50 ± 5 µg/mL in Nonane
ED-4169 1.2 mL

2,3-Dichlorodibenzo-p-dioxin (¹³C₁₂, 99%)

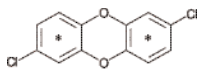


50 ± 5 µg/mL in Nonane
ED-4170 1.2 mL

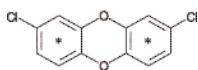
2,7-Dichlorodibenzo-p-dioxin (¹³C₁₂, 99%)

2,8-Dichlorodibenzo-p-dioxin (¹³C₁₂, 99%)

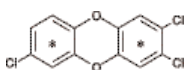
Isomer Pair



50 ± 5 µg/mL in Nonane
ED-925 1.2 mL

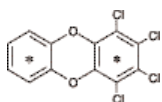


2,3,7-Trichlorodibenzo-p-dioxin (¹³C₁₂, 99%)



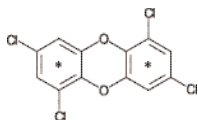
50 ± 5 µg/mL in Nonane
ED-2531 1.2 mL

1,2,3,4-Tetrachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



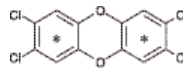
50 ± 2.5 µg/mL in Nonane
ED-911 1.2 mL

1,3,6,8-Tetrachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



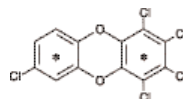
50 ± 5 µg/mL in Nonane
ED-4198 1.2 mL

2,3,7,8-Tetrachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



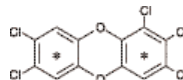
50 ± 2.5 µg/mL in Nonane
ED-900 1.2 mL

1,2,3,4,7-Pentachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



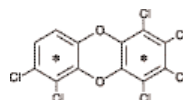
5 ± 0.5 µg/mL in Nonane
ED-4076 1.2 mL

1,2,3,7,8-Pentachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



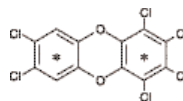
50 ± 2.5 µg/mL in Nonane
ED-955 1.2 mL

1,2,3,4,6,7-Hexachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



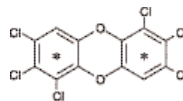
5 ± 0.5 µg/mL in Nonane
ED-4077 1.2 mL

1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



50 ± 2.5 µg/mL in Nonane
ED-946 1.2 mL

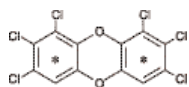
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



50 ± 2.5 µg/mL in
80% Nonane/20% Toluene
ED-966 1.2 mL

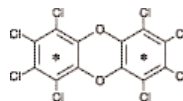
¹³C₁₂ Labeled Chlorodioxin Standards (continued)

1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



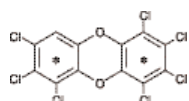
50 ± 2.5 µg/mL in
80% Nonane/20% Toluene
ED-996 1.2 mL

Octachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



10 ± 0.5 µg/mL in Nonane
ED-981 4 x 1.2 mL

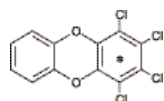
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



50 ± 2.5 µg/mL in Nonane
ED-972 1.2 mL

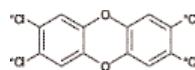
¹³C₆ and ³⁷Cl₄ Labeled Chlorodioxin Standards

1,2,3,4-Tetrachlorodibenzo-p-dioxin (¹³C₆, 99%)



50 ± 5 µg/mL in Nonane
ED-910 1.2 mL

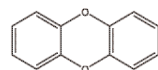
2,3,7,8-Tetrachlorodibenzo-p-dioxin (³⁷Cl₄, 96%)



50 ± 5 µg/mL in Nonane
ED-907 1.2 mL

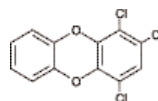
Unlabeled Chlorodioxin Standards

Dibenzo-p-dioxin



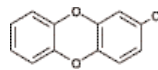
50 ± 5 µg/mL in Nonane
ULM-1711-1.2 ^{new} 1.2 mL

1,2,4-Trichlorodibenzo-p-dioxin



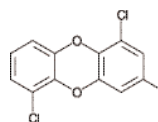
50 ± 5 µg/mL in Nonane
ED-1777 1.2 mL

2-Monochlorodibenzo-p-dioxin



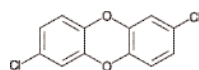
50 ± 5 µg/mL in Nonane
ED-1771 1.2 mL
ED-1771-C 1 mg

1,3,6-Trichlorodibenzo-p-dioxin

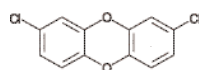


50 ± 5 µg/mL in Nonane
ED-4129 1.2 mL

2,7-Dichlorodibenzo-p-dioxin 2,8-Dichlorodibenzo-p-dioxin Isomer Pair

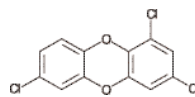


50 ± 5 µg/mL in Nonane
ED-926 1.2 mL



Crystalline solid
ED-926-C 1 mg

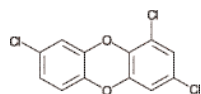
1,3,7-Trichlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-4090 1.2 mL

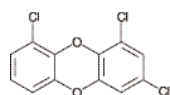
Unlabeled Chlorodioxin Standards (continued)

1,3,8-Trichlorodibenzo-p-dioxin



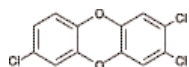
50 ± 5 µg/mL in Nonane
ED-4130 1.2 mL

1,3,9-Trichlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-4131 1.2 mL

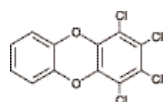
2,3,7-Trichlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-1779 1.2 mL

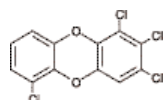
Crystalline solid
ED-1779-C 1 mg

1,2,3,4-Tetrachlorodibenzo-p-dioxin



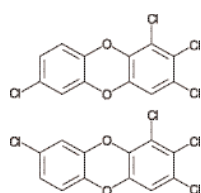
50 ± 2.5 µg/mL in Nonane
ED-912 1.2 mL

1,2,3,6-Tetrachlorodibenzo-p-dioxin



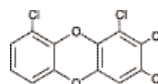
50 ± 5 µg/mL in Nonane
ED-947 1.2 mL

1,2,3,7-Tetrachlorodibenzo-p-dioxin 1,2,3,8-Tetrachlorodibenzo-p-dioxin Isomer Pair



50 ± 5 µg/mL in Nonane
ED-905 1.2 mL

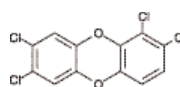
1,2,3,9-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-948 1.2 mL

Crystalline solid
ED-948-C 1 mg

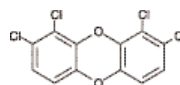
1,2,7,8-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-915 1.2 mL

Crystalline solid
ED-915-C 1 mg

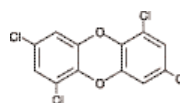
1,2,8,9-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-916 1.2 mL

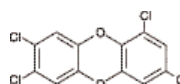
Crystalline solid
ED-916-C 1 mg

1,3,6,8-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-2518 1.2 mL

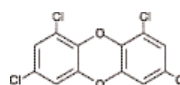
1,3,7,8-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-917 1.2 mL

Crystalline solid
ED-917-C 1 mg

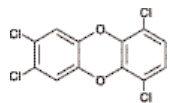
1,3,7,9-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-4061 1.2 mL

Unlabeled Chlorodioxin Standards (continued)

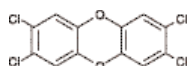
1,4,7,8-Tetrachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-922 1.2 mL

Crystalline solid
ED-922-C 1 mg

2,3,7,8-Tetrachlorodibenzo-p-dioxin



50 ± 2.5 µg/mL in Nonane
ED-901 4 x 1.2

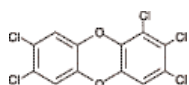
10 ± 1 µg/mL in Methanol
ED-901-A 1.2 mL

50 ± 5 µg/mL in DMSO
ED-901-B 1.2 mL

500 µg/mL in Toluene
ED-901-T 1.2 mL

Crystalline solid
ED-901-C 1 mg

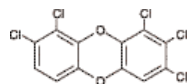
1,2,3,7,8-Pentachlorodibenzo-p-dioxin



50 ± 2.5 µg/mL in Nonane
ED-950 1.2 mL

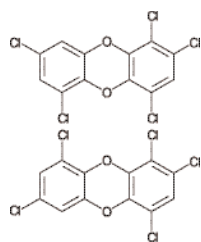
Crystalline solid
ED-950-C 1 mg

1,2,3,8,9-Pentachlorodibenzo-p-dioxin



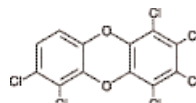
5 ± 0.5 µg/mL in Nonane
ED-924 1.2 mL

1,2,4,6,8-Pentachlorodibenzo-p-dioxin 1,2,4,7,9-Pentachlorodibenzo-p-dioxin Isomer Pair



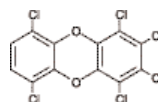
5 ± 0.5 µg/mL in Nonane
ED-927 1.2 mL

1,2,3,4,6,7-Hexachlorodibenzo-p-dioxin



5 ± 0.5 µg/mL in Nonane
ED-932 1.2 mL

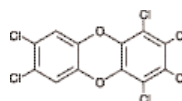
1,2,3,4,6,9-Hexachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-933 1.2 mL

Crystalline solid
ED-933-C 1 mg

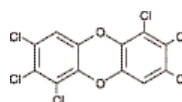
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin



50 ± 2.5 µg/mL in Nonane
ED-961 1.2 mL

Crystalline solid
ED-961-C 1 mg

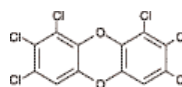
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin



50 ± 2.5 µg/mL in Nonane
ED-960 1.2 mL

Crystalline solid
ED-960-C 1 mg

1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin

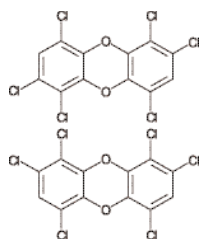


50 ± 2.5 µg/mL in Nonane
ED-969 1.2 mL

Crystalline solid
ED-969-C 1 mg

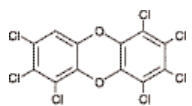
Unlabeled Chlorodioxin Standards (continued)

1,2,4,6,7,9-Hexachlorodibenzo-p-dioxin 1,2,4,6,8,9-Hexachlorodibenzo-p-dioxin Isomer Pair



5 ± 0.5 µg/mL in Nonane
ED-929 1.2 mL

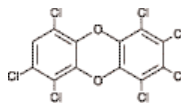
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin



50 ± 2.5 µg/mL in Nonane
ED-971 1.2 mL

Crystalline solid
ED-971-C 1 mg

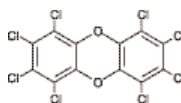
1,2,3,4,6,7,9-Heptachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
ED-976 1.2 mL

Crystalline solid
ED-976-C 1 mg

Octachlorodibenzo-p-dioxin



10 ± 0.5 µg/mL in Nonane
ED-980 4 x 1.2 mL

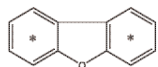
Crystalline solid
ED-980-C 10 mg

CATALOG #	COMPOUND	AMOUNT
ED-1770	1-Monochlorodibenzo-p-dioxin	1 mL
ED-1770-C	1-Monochlorodibenzo-p-dioxin	1 mg
ED-1772	1,6-Dichlorodibenzo-p-dioxin	1 mL
ED-1772-C	1,6-Dichlorodibenzo-p-dioxin	1 mg
ED-1773-C	2,3-Dichlorodibenzo-p-dioxin	1 mg
ED-1776	1,2,3-Trichlorodibenzo-p-dioxin	1 mL
ED-1776-C	1,2,3-Trichlorodibenzo-p-dioxin	1 mg
ED-1778	1,7,8-Trichlorodibenzo-p-dioxin	1 mL
ED-1778-C	1,7,8-Trichlorodibenzo-p-dioxin	1 mg
ED-951-C	1,2,3,4,7-Pentachlorodibenzo-p-dioxin	1 mg
ED-1781	1,2,4,7,8-Pentachlorodibenzo-p-dioxin 50 µg/mL in Toluene	1 mL
ED-1781-C	1,2,4,7,8-Pentachlorodibenzo-p-dioxin	1 mg

Solutions are at approximately 50 µg/mL in Isooctane solution. Chemical purity 98-99%.
Other isomers may be available on a special request basis. Please inquire.

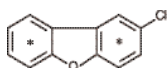
¹³C₁₂ Labeled Chlorofuran Standards

Dibenzofuran (¹³C₁₂, 99%)



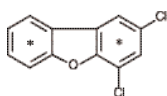
50 ± 5 µg/mL in Nonane
CLM-1561-1.2 1.2 mL

2-Monochlorodibenzofuran (¹³C₁₂, 99%)



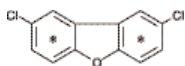
50 ± 5 µg/mL in Nonane
EF-4168 1.2 mL

2,4-Dichlorodibenzofuran (¹³C₁₂, 99%)



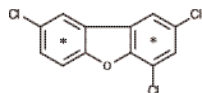
50 ± 5 µg/mL in Nonane
EF-4171 1.2 mL

2,8-Dichlorodibenzofuran (¹³C₁₂, 99%)



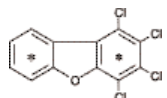
50 ± 5 µg/mL in Nonane
EF-4016 1.2 mL

2,4,8-Trichlorodibenzofuran (¹³C₁₂, 99%)



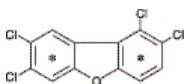
50 ± 5 µg/mL in Nonane
EF-4172 1.2 mL

1,2,3,4-Tetrachlorodibenzofuran (¹³C₁₂, 99%)



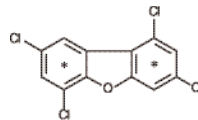
50 ± 5 µg/mL in Nonane
EF-920 1.2 mL

1,2,7,8-Tetrachlorodibenzofuran (¹³C₁₂, 99%)



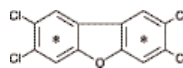
50 ± 5 µg/mL in Nonane
EF-1438 1.2 mL

1,3,6,8-Tetrachlorodibenzofuran (¹³C₁₂, 99%)



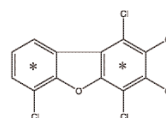
50 ± 5 µg/mL in Nonane
EF-5009 1.2 mL

2,3,7,8-Tetrachlorodibenzofuran (¹³C₁₂, 99%)



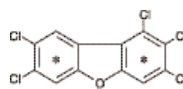
50 ± 2.5 µg/mL in Nonane
EF-904 1.2 mL

1,2,3,4,6-Pentachlorodibenzofuran (¹³C₁₂, 99%)



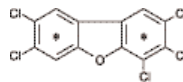
50 ± 2.5 µg/mL in Nonane
EF-5050 ^{new} 1.2 mL

1,2,3,7,8-Pentachlorodibenzofuran (¹³C₁₂, 99%)



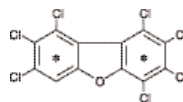
50 ± 2.5 µg/mL in Nonane
EF-952 1.2 mL

2,3,4,7,8-Pentachlorodibenzofuran (¹³C₁₂, 99%)



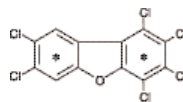
50 ± 2.5 µg/mL in Nonane
EF-958 1.2 mL

1,2,3,4,6,9-Hexachlorodibenzofuran (¹³C₁₂, 99%)



50 ± 2.5 µg/mL in Nonane
EF-5052 ^{new} 1.2 mL

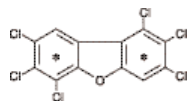
1,2,3,4,7,8-Hexachlorodibenzofuran (¹³C₁₂, 99%)



50 ± 2.5 µg/mL in Nonane
EF-963 1.2 mL

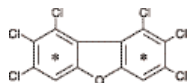
$^{13}\text{C}_{12}$ Labeled Chlorofuran Standards (continued)

1,2,3,6,7,8-Hexachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



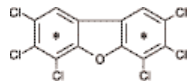
50 ± 2.5 µg/mL in Nonane
 EF-985 1.2 mL

1,2,3,7,8,9-Hexachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



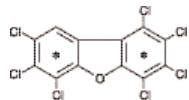
50 ± 2.5 µg/mL in Nonane
 EF-986 1.2 mL

2,3,4,6,7,8-Hexachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



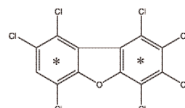
50 ± 2.5 µg/mL in Nonane
 EF-987 1.2 mL

1,2,3,4,6,7,8-Heptachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



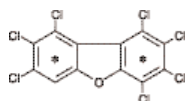
50 ± 2.5 µg/mL in Nonane
 EF-974 1.2 mL

1,2,3,4,6,8,9-Heptachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



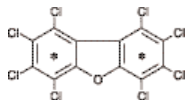
50 ± 2.5 µg/mL in Nonane
 EF-5054^{new} 1.2 mL

1,2,3,4,7,8,9-Heptachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



50 ± 2.5 µg/mL in Nonane
 EF-988 1.2 mL

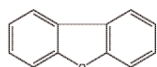
Octachlorodibenzofuran ($^{13}\text{C}_{12}$, 99%)



50 ± 2.5 µg/mL in Nonane
 EF-983 1.2 mL

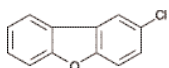
Unlabeled Chlorofuran Standards

Dibenzofuran



50 ± 5 µg/mL in Nonane
ULM-1712-1.2 ^{new} 1.2 mL

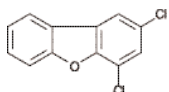
2-Monochlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-1785 1.2 mL

Crystalline solid
EF-1785-C 1 mg

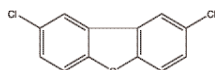
2,4-Dichlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-1787 1.2 mL

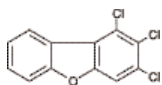
Crystalline solid
EF-1787-C 1 mg

2,8 Dichlorodibenzofuran



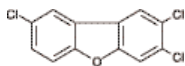
50 ± 5 µg/mL in Nonane
EF-1789 1.2 mL

1,2,3-Trichlorodibenzofuran



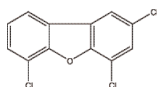
50 ± 5 µg/mL in Nonane
EF-1790 1.2 mL

2,3,8-Trichlorodibenzofuran



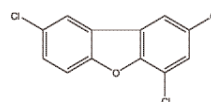
50 ± 5 µg/mL in Nonane
EF-1791 1.2 mL

2,4,6 Trichlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-1792 1 mL
EF-1792-C

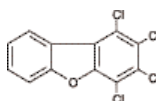
2,4,8 Trichlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-1793 1.2 mL

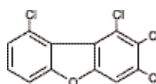
Crystalline solid
EF-1793-C 1 mg

1,2,3,4-Tetrachlorodibenzofuran



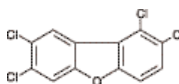
50 ± 5 µg/mL in Nonane
EF-921 1.2 mL

1,2,3,9-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-4030 1.2 mL

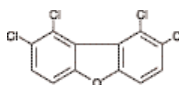
1,2,7,8-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-918 1.2 mL

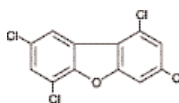
Crystalline solid
EF-918-C 1 mg

1,2,8,9-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-939 1.2 mL

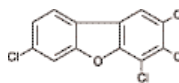
1,3,6,8-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-944 1.2 mL

Crystalline solid
EF-944-C 1 mg

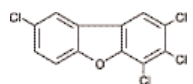
2,3,4,7-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-4031 1.2 mL

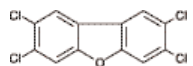
Unlabeled Chlorofuran Standards (continued)

2,3,4,8-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-919 1.2 mL

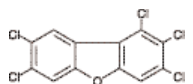
2,3,7,8-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-903 1.2 mL

Crystalline solid
EF-903-C 1 mg

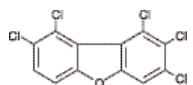
1,2,3,7,8-Pentachlorodibenzofuran



50 ± 2.5 µg/mL in Nonane
EF-953 1.2 mL

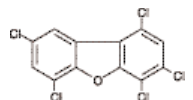
Crystalline solid
EF-953-C 1 mg

1,2,3,8,9-Pentachlorodibenzofuran



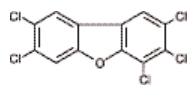
50 ± 5 µg/mL in Nonane
EF-954 1.2 mL

1,3,4,6,8-Pentachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-942-50 1.2 mL

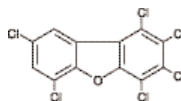
2,3,4,7,8-Pentachlorodibenzofuran



50 ± 2.5 µg/mL in Nonane
EF-956 1.2 mL

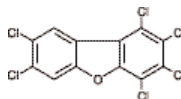
Crystalline solid
EF-956-C 1 mg

1,2,3,4,6,8-Hexachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-943-50 1.2 mL

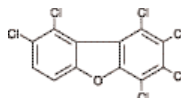
1,2,3,4,7,8-Hexachlorodibenzofuran



50 ± 2.5 µg/mL in Nonane
EF-964 1.2 mL

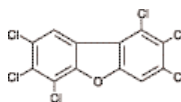
Crystalline solid
EF-964-C 1 mg

1,2,3,4,8,9-Hexachlorodibenzofuran



50 ± 5 µg/mL in Nonane
EF-965 1.2 mL
(Chemical Purity: 96%)

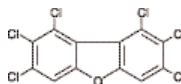
1,2,3,6,7,8-Hexachlorodibenzofuran



50 ± 2.5 µg/mL in Nonane
EF-962 1.2 mL

Crystalline solid
EF-962-C 1 mg

1,2,3,7,8,9-Hexachlorodibenzofuran

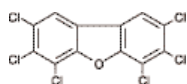


50 ± 2.5 µg/mL in Nonane
EF-967 1.2 mL

Crystalline solid
EF-967-C 1 mg

Unlabeled Chlorofuran Standards (continued)

2,3,4,6,7,8-Hexachlorodibenzofuran



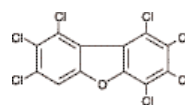
50 ± 2.5 µg/mL in Nonane

EF-968 1.2 mL

Crystalline solid

EF-968-C 1 mg

1,2,3,4,7,8,9-Heptachlorodibenzofuran



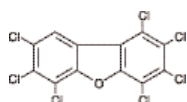
50 ± 2.5 µg/mL in Nonane

EF-975 1.2 mL

Crystalline solid

EF-975-C 1 mg

1,2,3,4,6,7,8-Heptachlorodibenzofuran



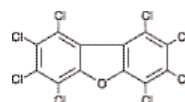
50 ± 2.5 µg/mL in Nonane

EF-973 1.2 mL

Crystalline solid

EF-973-C 1 mg

Octachlorodibenzofuran



50 ± 2.5 µg/mL in Nonane

EF-982 1.2 mL

Crystalline solid

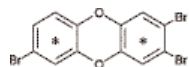
EF-982-C 10 mg

CATALOG #	COMPOUND	AMOUNT
EF-1786	4-Monochlorodibenzofuran	1 mL
EF-1786-C	4-Monochlorodibenzofuran	5 mg
EF-1788	2,6-Dichlorodibenzofuran 50 µg/mL in Toluene	1 mL
EF-1788-C	2,6-Dichlorodibenzofuran	1 mg
EF-1796	1,2,3,4,8-Pentachlorodibenzofuran	1 mL
EF-1796-C	1,2,3,4,8-Pentachlorodibenzofuran	1 mg

Solutions are at approximately 50 µg/mL in Isooctane solution. Chemical purity 98-99%. Other isomers may be available on a special request basis. Please inquire.

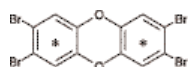
¹³C₁₂ Labeled Bromodioxin Standards

2,3,7-Tribromodibenzo-p-dioxin (¹³C₁₂, 99%)



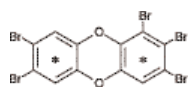
50 ± 5 µg/mL in Nonane
ED-2532 1.2 mL

2,3,7,8-Tetrabromodibenzo-p-dioxin (¹³C₁₂, 99%)



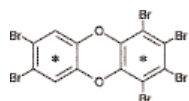
5 ± 0.5 µg/mL in Nonane
ED-1440 4 x 1.2 mL

1,2,3,7,8-Pentabromodibenzo-p-dioxin (¹³C₁₂, 99%)



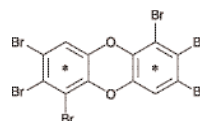
5 ± 0.5 µg/mL in Nonane
(Chemical Purity: 96%)
ED-1450 4 x 1.2 mL

1,2,3,4,7,8-Hexabromodibenzo-p-dioxin (¹³C₁₂, 99%)



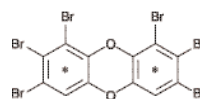
5 ± 0.5 µg/mL in Nonane
ED-2534 4 x 1.2 mL

1,2,3,6,7,8 Hexabromodibenzo-p-dioxin (¹³C₁₂, 99%)



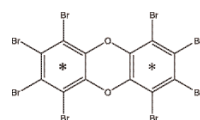
5 ± 0.5 µg/mL in Nonane
ED-5237^{new} 4 x 1.2 mL

1,2,3,7,8,9 Hexabromodibenzo-p-dioxin (¹³C₁₂, 99%)



5 ± 0.5 µg/mL in Nonane
ED-5238^{new} 4 x 1.2 mL

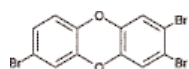
Octabromodibenzo-p-dioxin (¹³C₁₂, 99%)



5 ± 0.5 µg/mL in
70% Nonane/30% Toluene
ED-5089-1.2^{new} 1.2 mL

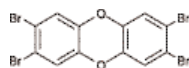
Unlabeled Bromodioxin Standards

2,3,7-Tribromodibenzo-p-dioxin



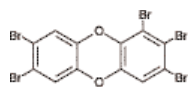
50 ± 5 µg/mL in Nonane
ED-1763 1.2 mL

2,3,7,8-Tetrabromodibenzo-p-dioxin



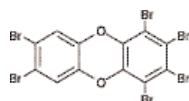
5 ± 0.5 µg/mL in Nonane
ED-1441 8 x 1.2 mL

1,2,3,7,8-Pentabromodibenzo-p-dioxin



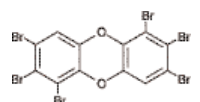
5 ± 0.5 µg/mL in Nonane
ED-1451 8 x 1.2 mL

1,2,3,4,7,8-Hexabromodibenzo-p-dioxin



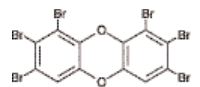
5 ± 0.5 µg/mL in Nonane
ED-1462 8 x 1.2 mL

1,2,3,6,7,8-Hexabromodibenzo-p-dioxin



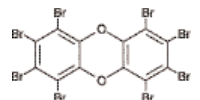
5 ± 0.5 µg/mL in Nonane
ED-1465 8 x 1.2 mL

1,2,3,7,8,9-Hexabromodibenzo-p-dioxin



5 ± 0.5 µg/mL in Nonane
ED-1466 8 x 1.2 mL

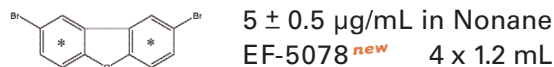
Octabromodibenzo-p-dioxin



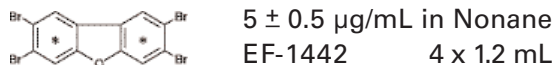
5 ± 0.5 µg/mL in Toluene
ED-1481 8 x 1.2 mL
ED-1481-1.2^{new} 1.2 mL

¹³C₁₂ Labeled Bromofuran Standards

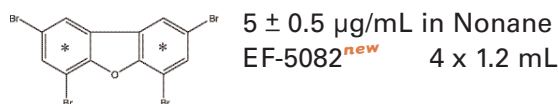
2,8-Dibromodibenzofuran (¹³C₁₂, 99%)



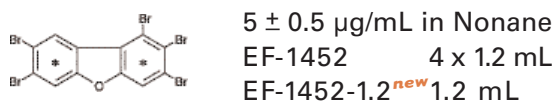
2,3,7,8-Tetrabromodibenzofuran (¹³C₁₂, 99%)



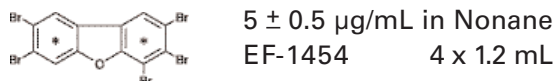
2,4,6,8-Tetrabromodibenzofuran (¹³C₁₂, 99%)



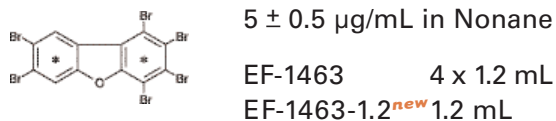
1,2,3,7,8-Pentabromodibenzofuran (¹³C₁₂, 99%)



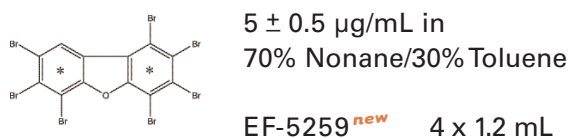
2,3,4,7,8-Pentabromodibenzofuran (¹³C₁₂, 99%)



1,2,3,4,7,8-Hexabromodibenzofuran (¹³C₁₂, 99%)

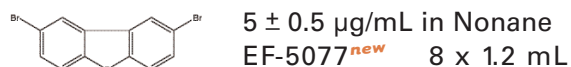


1,2,3,4,6,7,8-Heptabromodibenzofuran (¹³C₁₂, 99%)

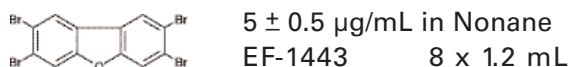


Unlabeled Bromofuran Standards

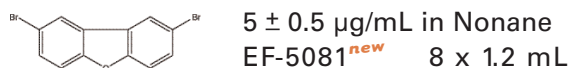
2,8-Dibromodibenzofuran



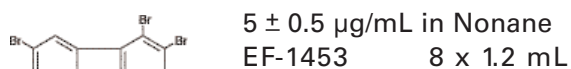
2,3,7,8-Tetrabromodibenzofuran



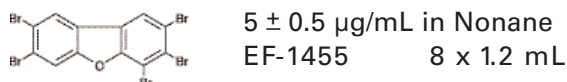
2,4,6,8-Tetrabromodibenzofuran



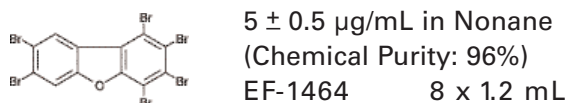
1,2,3,7,8-Pentabromodibenzofuran



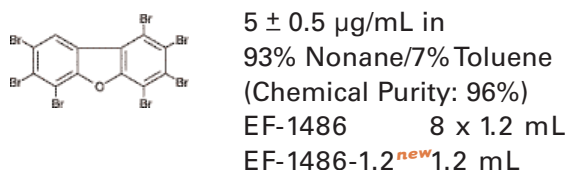
2,3,4,7,8-Pentabromodibenzofuran



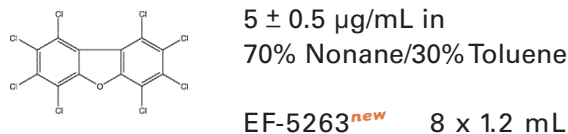
1,2,3,4,7,8-Hexabromodibenzofuran



1,2,3,4,6,7,8-Heptabromodibenzofuran

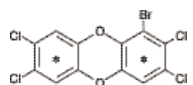


Octabromodibenzofuran



¹³C₁₂ Labeled Mixed Bromo/Chlorodioxin Standards

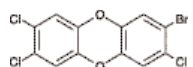
1-Bromo-2,3,7,8-Tetrachlorodibenzo-p-dioxin (¹³C₁₂, 99%)



50 ± 5 µg/mL in Nonane
 EBC-2509 1.2 mL

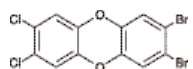
Unlabeled Mixed Bromo/Chlorodioxin Standards

2-Bromo-3,7,8-Trichlorodibenzo-p-dioxin



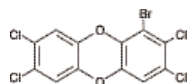
50 ± 5 µg/mL in Nonane
 (Chemical Purity: 95%)
 EBC-1743 1.2 mL

2,3-Dibromo-7,8-Dichlorodibenzo-p-dioxin



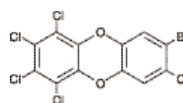
50 ± 5 µg/mL in Nonane
 EBC-1741 1.2 mL

1-Bromo-2,3,7,8-Tetrachlorodibenzo-p-dioxin



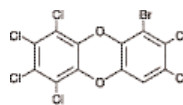
50 ± 5 µg/mL in Nonane
 EBC-2501 1.2 mL

2-Bromo-3,6,7,8,9-Pentachlorodibenzo-p-dioxin



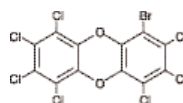
50 ± 5 µg/mL in Nonane
 EBC-2504 1.2 mL

1-Bromo-2,3,6,7,8,9-Hexachlorodibenzo-p-dioxin



50 ± 5 µg/mL in Nonane
 EBC-2505 1.2 mL

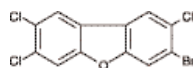
1-Bromo-2,3,4,6,7,8,9-Heptachlorodibenzo-p-dioxin



5 ± 0.5 µg/mL in Nonane
 EBC-2507-A^{new} 8 x 1.2 mL

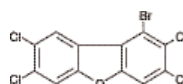
Unlabeled Mixed Bromo/Chlorofuran Standards

3-Bromo-2,7,8-Trichlorodibenzofuran



50 ± 5 µg/mL in Nonane
 EBC-2500 1.2 mL

1-Bromo-2,3,7,8-Tetrachlorodibenzofuran



50 ± 5 µg/mL in Nonane
 EBC-2503 1.2 mL