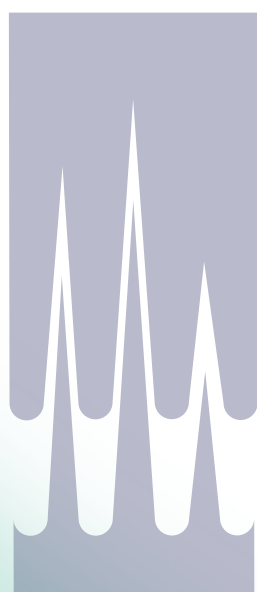


ダイオキシン類・ポリ塩化ビフェニル分析用標準液
PCDDs/PCDFs/DL-PCBs and Total PCBs Analytical Solution

2012



WELLINGTON
LABORATORIES

**STANDARDS FOR ENVIRONMENTAL
TESTING AND RESEARCH**

Wellington Laboratories Japan Inc.
www.well-labs.co.jp

Welcome to the 2012 New Catalogue

平素は、Wellington Laboratories社標準品をご愛顧頂き誠に有難うございます。
さて、今般「ダイオキシン類・ポリ塩化ビフェニル分析用 標準液」を一冊に纏めましたカタログ
を作成致しましたので、ご案内申し上げます。

近年、ダイオキシン類の分析法も多様化し、又ポリ塩化ビフェニルも絶縁油中の微量PCB
の処理に伴い、各種分析法に則した分析用標準液のニーズが高まって来ています。

今回のカタログでは、「ダイオキシン類・ポリ塩化ビフェニル検量線作成用標準液」「検量線
作成用標準液SUPPORT SOLUTIONS」を項目別に掲載し、巻末に「ADDITIONAL
PRODUCTS」として、PAHs・HO-PCBs・MeO-PCBs・Chlorobenzenes・Chlorophenolsを
掲載致しました。

Wellington Laboratories社では、今後共多様化する分析法に対し、より精度高く、又
簡便にご使用頂ける標準品を目指し、環境用標準品のリーディングカンパニーとして、今後も
努力してまいります。

何卒、Wellington Laboratories社標準品を、今までに増しご愛顧頂けますようお願い申し
上げます。

2012年6月

株式会社ウエルントン ラボラトリーズ ジャパン

加 坂 達 司
木 田 孝 文



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CERTIFICATE OF REGISTRATION

This is to certify that

Wellington Laboratories

345 Southgate Drive, Guelph, Ontario N1G 3M5 Canada

operates a

Quality Management System

which complies with the requirements of

ISO 9001:2008

for the following scope of registration

The Registration covers the Quality Management System as it applies to the design and provision of reference standards and chemicals for use in environmental analysis and toxicological research.

Certificate No: CERT-0051698

File No: 1039334

Issue Date: November 11, 2010

Original Certification Date: December 30, 2004

Current Certification Date: December 28, 2010

Certificate Expiry Date: December 27, 2013

Chris Jouppi
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今後も皆様に満足していただける製品を提供させていただきますので、よろしくお願い致します。



ダイオキシン類検量線作成用標準液

Calibration Solutions

PCDDs/PCDFs/DL-PCBs Mixture

PCDDs/PCDFs Mixture



DFP-CVS-B10

Catalogue Number	Product (nonane solution)	Qty/Conc
確 DFP-CVS-B10-Set1	CS1/CS2/CS3/CS4/CS5	1Kit (5×200 µl ampoules)
確 DFP-CVS-B10-Set2	CS2/CS3/CS4/CS5/CS6	1Kit (5×200 µl ampoules)
確 DFP-B10-CS1	CS1	200 µl
確 DFP-B10-CS2	CS2	200 µl
確 DFP-B10-CS3	CS3	200 µl
確 DFP-B10-CS4	CS4	200 µl
確 DFP-B10-CS5	CS5	200 µl
確 DFP-B10-CS6	CS6	200 µl
確 DFP-B10-CS7	CS7	200 µl

	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)	CS5 (ng/ml)	CS6 (ng/ml)	CS7 (ng/ml)	
Native PCDDs & PCDFs								
1,3,6,8-Tetrachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500	
1,2,8,9-Tetrachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500	
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000	
Octachlorodibenzo-p-dioxin	0.5	2.5	10	50	250	1000	2500	
1,3,6,8-Tetrachlorodibenzofuran	0.1	0.5	2	10	50	200	500	
1,2,8,9-Tetrachlorodibenzofuran	0.1	0.5	2	10	50	200	500	
2,3,7,8-Tetrachlorodibenzofuran	0.1	0.5	2	10	50	200	500	
1,2,3,7,8-Pentachlorodibenzofuran	0.1	0.5	2	10	50	200	500	
2,3,4,7,8-Pentachlorodibenzofuran	0.1	0.5	2	10	50	200	500	
1,2,3,4,7,8-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000	
1,2,3,6,7,8-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000	
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000	
2,3,4,6,7,8-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.2	1	4	20	100	400	1000	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.2	1	4	20	100	400	1000	
Octachlorodibenzofuran	0.5	2.5	10	50	250	1000	2500	
Native PCB Congeners	IUPAC							
3,3',4,4'-Tetrachlorobiphenyl	77	0.2	1	4	20	100	400	1000
3,4,4',5-Tetrachlorobiphenyl	81	0.2	1	4	20	100	400	1000
2,3,3',4,4'-Pentachlorobiphenyl	105	0.2	1	4	20	100	400	1000
2,3,4,4',5-Pentachlorobiphenyl	114	0.2	1	4	20	100	400	1000
2,3',4,4',5-Pentachlorobiphenyl	118	0.2	1	4	20	100	400	1000
2',3,4,4',5-Pentachlorobiphenyl	123	0.2	1	4	20	100	400	1000
3,3',4,4',5-Pentachlorobiphenyl	126	0.2	1	4	20	100	400	1000
2,3,3',4,4',5-Hexachlorobiphenyl	156	0.2	1	4	20	100	400	1000
2,3,3',4,4',5'-Hexachlorobiphenyl	157	0.2	1	4	20	100	400	1000
2,3',4,4',5,5'-Hexachlorobiphenyl	167	0.2	1	4	20	100	400	1000
3,3',4,4',5,5'-Hexachlorobiphenyl	169	0.2	1	4	20	100	400	1000
2,2',3,3',4,4',5-Heptachlorobiphenyl	170	0.2	1	4	20	100	400	1000
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	0.2	1	4	20	100	400	1000
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	0.2	1	4	20	100	400	1000

Continued on next page

Mass-Labelled PCDDs & PCDFs**Surrogate/Extraction Spikes**

	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)	CS5 (ng/ml)	CS6 (ng/ml)	CS7 (ng/ml)
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	20	20	20	20	20	20	20

2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzofuran	20	20	20	20	20	20	20

Sampling and Syringe Spikes

* 1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
** 1,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
** 1,2,4,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
** 1,2,3,4,6,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
** 1,2,3,4,6,7,9-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10

Mass-Labelled PCB Congeners**Surrogate/Extraction Spikes**

	IUPAC							
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	10	10	10	10	10	10	10
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	10	10	10	10	10	10	10
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	10	10	10	10	10	10	10
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	10	10	10	10	10	10	10
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	10	10	10	10	10	10	10
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	10	10	10	10	10	10	10
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	10	10	10	10	10	10	10
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	10	10	10	10	10	10	10
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	10	10	10	10	10	10	10
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	10	10	10	10	10	10	10
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	10	10	10	10	10	10	10
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	10	10	10	10	10	10	10
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	10	10	10	10	10	10	10
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	10	10	10	10	10	10	10

Sampling and Syringe Spikes

* 3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	10	10	10	10	10	10	10
** 2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	10	10	10	10	10	10	10
** 2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	10	10	10	10	10	10	10
** 2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	10	10	10	10	10	10	10
** 2,2',3,3',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	178L	10	10	10	10	10	10	10

* for sampling spike

** for syringe spike

DFP-CVS-B1

Catalogue Number	Product (nonane solution)	Qty/Conc
確 DFP-CVS-B1	CS2-L/CS3-L/CS4-L/CS5-L/CS6-L	1Kit (5×200 µl ampoules)
確 DFP-B1-CS2-L	CS2-L	200 µl
確 DFP-B1-CS3-L	CS3-L	200 µl
確 DFP-B1-CS4-L	CS4-L	200 µl
確 DFP-B1-CS5-L	CS5-L	200 µl
確 DFP-B1-CS6-L	CS6-L	200 µl

	CS2-L	CS3-L	CS4-L	CS5-L	CS6-L	
	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)	
Native PCDDs & PCDFs						
1,3,6,8-Tetrachlorodibenzo-p-dioxin	0.05	0.2	1	5	20	
1,2,8,9-Tetrachlorodibenzo-p-dioxin	0.05	0.2	1	5	20	
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.05	0.2	1	5	20	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.05	0.2	1	5	20	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.1	0.4	2	10	40	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.1	0.4	2	10	40	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.1	0.4	2	10	40	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.1	0.4	2	10	40	
Octachlorodibenzo-p-dioxin	0.25	1	5	25	100	
1,3,6,8-Tetrachlorodibenzofuran	0.05	0.2	1	5	20	
1,2,8,9-Tetrachlorodibenzofuran	0.05	0.2	1	5	20	
2,3,7,8-Tetrachlorodibenzofuran	0.05	0.2	1	5	20	
1,2,3,7,8-Pentachlorodibenzofuran	0.05	0.2	1	5	20	
2,3,4,7,8-Pentachlorodibenzofuran	0.05	0.2	1	5	20	
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	0.4	2	10	40	
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	0.4	2	10	40	
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	0.4	2	10	40	
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	0.4	2	10	40	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.1	0.4	2	10	40	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.1	0.4	2	10	40	
Octachlorodibenzofuran	0.25	1	5	25	100	
Native PCB Congeners	IUPAC					
3,3',4,4'-Tetrachlorobiphenyl	77	0.1	0.4	2	10	40
3,4,4',5-Tetrachlorobiphenyl	81	0.1	0.4	2	10	40
2,3,3',4,4'-Pentachlorobiphenyl	105	0.1	0.4	2	10	40
2,3,4,4',5-Pentachlorobiphenyl	114	0.1	0.4	2	10	40
2,3',4,4',5-Pentachlorobiphenyl	118	0.1	0.4	2	10	40
2',3,4,4',5-Pentachlorobiphenyl	123	0.1	0.4	2	10	40
3,3',4,4',5-Pentachlorobiphenyl	126	0.1	0.4	2	10	40
2,3,3',4,4',5-Hexachlorobiphenyl	156	0.1	0.4	2	10	40
2,3,3',4,4',5'-Hexachlorobiphenyl	157	0.1	0.4	2	10	40
2,3',4,4',5,5'-Hexachlorobiphenyl	167	0.1	0.4	2	10	40
3,3',4,4',5,5'-Hexachlorobiphenyl	169	0.1	0.4	2	10	40
2,2',3,3',4,4',5-Heptachlorobiphenyl	170	0.1	0.4	2	10	40
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	0.1	0.4	2	10	40
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	0.1	0.4	2	10	40

Continued on next page

Mass-Labelled PCDDs & PCDFs		CS2-L (ng/ml)	CS3-L (ng/ml)	CS4-L (ng/ml)	CS5-L (ng/ml)	CS6-L (ng/ml)
Surrogate/Extraction Spikes						
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin		2	2	2	2	2
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1	1	1	1	1
Octachloro[¹³ C ₁₂]dibenzofuran		2	2	2	2	2
Sampling and Syringe Spikes						
* 1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
** 1,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
** 1,2,4,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
** 1,2,3,4,6,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
** 1,2,3,4,6,7,9-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin		1	1	1	1	1
Mass-Labelled PCB Congeners						
Surrogate/Extraction Spikes		IUPAC				
3,3',4,4'-Tetrahaloro[¹³ C ₁₂]biphenyl	<i>77L</i>	1	1	1	1	1
3,4,4',5-Tetrahaloro[¹³ C ₁₂]biphenyl	<i>81L</i>	1	1	1	1	1
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	<i>105L</i>	1	1	1	1	1
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	<i>114L</i>	1	1	1	1	1
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	<i>118L</i>	1	1	1	1	1
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	<i>123L</i>	1	1	1	1	1
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	<i>126L</i>	1	1	1	1	1
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	<i>156L</i>	1	1	1	1	1
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	<i>157L</i>	1	1	1	1	1
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	<i>167L</i>	1	1	1	1	1
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	<i>169L</i>	1	1	1	1	1
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	<i>170L</i>	1	1	1	1	1
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	<i>180L</i>	1	1	1	1	1
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	<i>189L</i>	1	1	1	1	1
Sampling and Syringe Spikes						
* 3,3',4,5'-Tetrahaloro[¹³ C ₁₂]biphenyl	<i>79L</i>	1	1	1	1	1
** 2,3',4',5-Tetrahaloro[¹³ C ₁₂]biphenyl	<i>70L</i>	1	1	1	1	1
** 2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	<i>111L</i>	1	1	1	1	1
** 2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	<i>138L</i>	1	1	1	1	1
** 2,2',3,3',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	<i>178L</i>	1	1	1	1	1

* for sampling spike

** for syringe spike

DF-CVS-A10

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-CVS-A10-Set 1	CS1/CS3/CS5/CS7/CS9	1Kit (5×200 µl ampoules)
DF-CVS-A10-Set 2	CS2/CS4/CS6/CS8/CS10	1Kit (5×200 µl ampoules)
DF-CVS-A10-Set 3	CS3/CS5/CS7/CS9/CS11	1Kit (5×200 µl ampoules)
DF-A10-CSL	CSL Extended Calibration/Low Level	200 µl
DF-A10-CS1	CS1	200 µl
DF-A10-CS2	CS2	200 µl
DF-A10-CS3	CS3	200 µl
DF-A10-CS4	CS4	200 µl

	CSL (ng/ml)	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)
Native PCDDs & PCDFs					
1,3,6,8-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,3,7,9-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,2,8,9-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5	1
Octachlorodibenzo-p-dioxin	0.1	0.2	0.4	1	2
1,3,6,8-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,7,8-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,8,9-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5	1
2,3,7,8-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,3,7,8-Pentachlorodibenzofuran	0.05	0.1	0.2	0.5	1
2,3,4,7,8-Pentachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,3,4,7,8-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,3,6,7,8-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,3,7,8,9-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5	1
2,3,4,6,7,8-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.05	0.1	0.2	0.5	1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.05	0.1	0.2	0.5	1
Octachlorodibenzofuran	0.1	0.2	0.4	1	2
MASS-LABELLED PCDDs & PCDFs					
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	20	20	20	20	20
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4,6-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	20	20	20	20	20

DF-CVS-A5

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-CVS-A5-Set 1	CS1/CS3/CS5/CS7/CS9	1Kit (5×200 µl ampoules)
DF-CVS-A5-Set 2	CS2/CS4/CS6/CS8/CS10	1Kit (5×200 µl ampoules)
DF-A5-CSL	CSL Extended Calibration/Low Level	200 µl
DF-A5-CS1	CS1	200 µl
DF-A5-CS2	CS2	200 µl
DF-A5-CS3	CS3	200 µl

	CSL (ng/ml)	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)
Native PCDDs & PCDFs				
1,3,6,8-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,3,7,9-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,2,8,9-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.05	0.1	0.2	0.5
Octachlorodibenzo-p-dioxin	0.1	0.2	0.4	1
1,3,6,8-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,7,8-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,8,9-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5
2,3,7,8-Tetrachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,3,7,8-Pentachlorodibenzofuran	0.05	0.1	0.2	0.5
2,3,4,7,8-Pentachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,3,4,7,8-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,3,6,7,8-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,3,7,8,9-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5
2,3,4,6,7,8-Hexachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.05	0.1	0.2	0.5
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.05	0.1	0.2	0.5
Octachlorodibenzofuran	0.1	0.2	0.4	1
MASS-LABELLED PCDDs & PCDFs				
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	5	5	5	5
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4,6-Pentachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	5	5	5	5
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10

DF-CVS-B10

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-CVS-B10-Set 1	CS1/CS3/CS5/CS7/CS9	1Kit (5×200 µl ampoules)
DF-CVS-B10-Set 2	CS2/CS4/CS6/CS8/CS10	1Kit (5×200 µl ampoules)
DF-CVS-B10-Set 3	CS3/CS5/CS7/CS9/CS11	1Kit (5×200 µl ampoules)
DF-B10-CS1	CS1	200 µl
DF-B10-CS2	CS2	200 µl
DF-B10-CS3	CS3	200 µl
DF-B10-CS4	CS4	200 µl

	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)
Native PCDDs & PCDFs				
1,3,6,8-Tetrachlorodibenzo-p-dioxin	0.1	0.2	0.5	1
1,3,7,9-Tetrachlorodibenzo-p-dioxin	0.1	0.2	0.5	1
1,2,8,9-Tetrachlorodibenzo-p-dioxin	0.1	0.2	0.5	1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.1	0.2	0.5	1
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.1	0.2	0.5	1
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.2	0.4	1	2
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.2	0.4	1	2
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.2	0.4	1	2
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.2	0.4	1	2
Octachlorodibenzo-p-dioxin	0.5	1	2.5	5
1,3,6,8-Tetrachlorodibenzofuran	0.1	0.2	0.5	1
1,2,7,8-Tetrachlorodibenzofuran	0.1	0.2	0.5	1
1,2,8,9-Tetrachlorodibenzofuran	0.1	0.2	0.5	1
2,3,7,8-Tetrachlorodibenzofuran	0.1	0.2	0.5	1
1,2,3,7,8-Pentachlorodibenzofuran	0.1	0.2	0.5	1
2,3,4,7,8-Pentachlorodibenzofuran	0.1	0.2	0.5	1
1,2,3,4,7,8-Hexachlorodibenzofuran	0.2	0.4	1	2
1,2,3,6,7,8-Hexachlorodibenzofuran	0.2	0.4	1	2
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	0.4	1	2
2,3,4,6,7,8-Hexachlorodibenzofuran	0.2	0.4	1	2
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.2	0.4	1	2
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.2	0.4	1	2
Octachlorodibenzofuran	0.5	1	2.5	5
MASS-LABELLED PCDDs & PCDFs				
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	20	20	20	20
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4,6-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	20	20	20	20

DF-CVS-C10

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-CVS-C10-Set 1	CS1/CS2/CS3/CS4/CS5	1Kit (5×200 µl ampoules)
DF-CVS-C10-Set 2	CS2/CS3/CS4/CS5/CS6	1Kit (5×200 µl ampoules)
DF-C10-CS1	CS1	200 µl
DF-C10-CS2	CS2	200 µl
DF-C10-CS3	CS3	200 µl
DF-C10-CS4	CS4	200 µl
DF-C10-CS5	CS5	200 µl
DF-C10-CS6	CS6	200 µl
DF-C10-CS7	CS7	200 µl

	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)	CS5 (ng/ml)	CS6 (ng/ml)	CS7 (ng/ml)
Native PCDDs & PCDFs							
1,3,6,8-Tetrachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500
1,2,8,9-Tetrachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.1	0.5	2	10	50	200	500
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.2	1	4	20	100	400	1000
Octachlorodibenzo-p-dioxin	0.5	2.5	10	50	250	1000	2500
1,3,6,8-Tetrachlorodibenzofuran	0.1	0.5	2	10	50	200	500
1,2,8,9-Tetrachlorodibenzofuran	0.1	0.5	2	10	50	200	500
2,3,7,8-Tetrachlorodibenzofuran	0.1	0.5	2	10	50	200	500
1,2,3,7,8-Pentachlorodibenzofuran	0.1	0.5	2	10	50	200	500
2,3,4,7,8-Pentachlorodibenzofuran	0.1	0.5	2	10	50	200	500
1,2,3,4,7,8-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000
1,2,3,6,7,8-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000
1,2,3,7,8,9-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000
2,3,4,6,7,8-Hexachlorodibenzofuran	0.2	1	4	20	100	400	1000
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.2	1	4	20	100	400	1000
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.2	1	4	20	100	400	1000
Octachlorodibenzofuran	0.5	2.5	10	50	250	1000	2500
MASS-LABELLED PCDDs & PCDFs							
Surrogate/Extraction Spikes							
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	20	20	20	20	20	20	20
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	10	10	10	10	10	10	10
Octachloro[¹³ C ₁₂]dibenzofuran	20	20	20	20	20	20	20
Sampling and Syringe Spikes							
*1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
**1,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
**1,2,4,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
**1,2,3,4,6,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10
**1,2,3,4,6,7,9-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	10	10	10	10	10	10	10

* for sampling spike

** for syringe spike



DL-PCBs 検量線作成用標準液

Calibration Solutions

DL-PCBs Mixture



PCB-CVS-A10

Catalogue Number	Product (nonane solution)	Qty/Conc
確 PCB-CVS-A10-Set 1	CS1/CS3/CS5/CS7/CS9	1Kit (5×200 µl ampoules)
確 PCB-CVS-A10-Set 2	CS2/CS4/CS6/CS8/CS10	1Kit (5×200 µl ampoules)
確 PCB-CVS-A10-Set 3	CS3/CS5/CS7/CS9/CS11	1Kit (5×200 µl ampoules)
確 PCB-A10-CSL	CSL Extended Calibration/Low Level	200 µl
確 PCB-A10-CS1	CS1	200 µl
確 PCB-A10-CS2	CS2	200 µl
確 PCB-A10-CS3	CS3	200 µl
確 PCB-A10-CS4	CS4	200 µl

NATIVE PCB CONGENER	IUPAC	CSL (ng/ml)	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)
3,3',4,4'-Tetrachlorobiphenyl	77	0.05	0.1	0.2	0.5	1
3,4,4',5-Tetrachlorobiphenyl	81	0.05	0.1	0.2	0.5	1
2,3,3',4,4'-Pentachlorobiphenyl	105	0.05	0.1	0.2	0.5	1
2,3,4,4',5-Pentachlorobiphenyl	114	0.05	0.1	0.2	0.5	1
2,3',4,4',5-Pentachlorobiphenyl	118	0.05	0.1	0.2	0.5	1
2',3,4,4',5-Pentachlorobiphenyl	123	0.05	0.1	0.2	0.5	1
3,3',4,4',5-Pentachlorobiphenyl	126	0.05	0.1	0.2	0.5	1
2,3,3',4,4',5-Hexachlorobiphenyl	156	0.05	0.1	0.2	0.5	1
2,3,3',4,4',5'-Hexachlorobiphenyl	157	0.05	0.1	0.2	0.5	1
2,3',4,4',5,5'-Hexachlorobiphenyl	167	0.05	0.1	0.2	0.5	1
3,3',4,4',5,5'-Hexachlorobiphenyl	169	0.05	0.1	0.2	0.5	1
2,2',3,3',4,4',5-Heptachlorobiphenyl	170	0.05	0.1	0.2	0.5	1
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	0.05	0.1	0.2	0.5	1
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	0.05	0.1	0.2	0.5	1

MASS-LABELLED PCB CONGENER

Sampling and Syringe Spikes

*3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	10	10	10	10	10
**2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	10	10	10	10	10
**2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	10	10	10	10	10
**2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	10	10	10	10	10

Surrogate/Extraction Spikes

3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	10	10	10	10	10
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	10	10	10	10	10
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	10	10	10	10	10
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	10	10	10	10	10
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	10	10	10	10	10
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	10	10	10	10	10
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	10	10	10	10	10
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	10	10	10	10	10
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	10	10	10	10	10
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	10	10	10	10	10
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	10	10	10	10	10
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	10	10	10	10	10
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	10	10	10	10	10
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	10	10	10	10	10

* for pre-sampling spike

** for syringe spike / recovery standard

Catalogue Number	Product (nonane solution)	Qty/Conc
PCB-A10-CS5	CS5	200 µl
PCB-A10-CS6	CS6	200 µl
PCB-A10-CS7	CS7	200 µl
PCB-A10-CS8	CS8	200 µl
PCB-A10-CS9	CS9	200 µl
PCB-A10-CS10	CS10	200 µl
PCB-A10-CS11	CS11	200 µl
PCB-A10-CSH	CSH Extended Calibration/High Level	200 µl

CS5 (ng/ml)	CS6 (ng/ml)	CS7 (ng/ml)	CS8 (ng/ml)	CS9 (ng/ml)	CS10 (ng/ml)	CS11 (ng/ml)	CSH (ng/ml)
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
2	5	10	20	50	100	250	1000
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10
10	10	10	10	10	10	10	10

PCB-CVS-A5

Catalogue Number	Product (nonane solution)	Qty/Conc
確 PCB-CVS-A5-Set 1	CS1/CS3/CS5/CS7/CS9	1Kit (5×200 µl ampoules)
確 PCB-CVS-A5-Set 2	CS2/CS4/CS6/CS8/CS10	1Kit (5×200 µl ampoules)
確 PCB-CVS-A5-Set 3	CS3/CS5/CS7/CS9/CS11	1Kit (5×200 µl ampoules)
確 PCB-A5-CSL	CSL Extended Calibration/Low Level	200 µl
確 PCB-A5-CS1	CS1	200 µl
確 PCB-A5-CS2	CS2	200 µl
確 PCB-A5-CS3	CS3	200 µl
確 PCB-A5-CS4	CS4	200 µl

NATIVE PCB CONGENER	IUPAC	CSL (ng/ml)	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)
3,3',4,4'-Tetrachlorobiphenyl	77	0.05	0.1	0.2	0.5	1
3,4,4',5-Tetrachlorobiphenyl	81	0.05	0.1	0.2	0.5	1
2,3,3',4,4'-Pentachlorobiphenyl	105	0.05	0.1	0.2	0.5	1
2,3,4,4',5-Pentachlorobiphenyl	114	0.05	0.1	0.2	0.5	1
2,3',4,4',5-Pentachlorobiphenyl	118	0.05	0.1	0.2	0.5	1
2',3,4,4',5-Pentachlorobiphenyl	123	0.05	0.1	0.2	0.5	1
3,3',4,4',5-Pentachlorobiphenyl	126	0.05	0.1	0.2	0.5	1
2,3,3',4,4',5-Hexachlorobiphenyl	156	0.05	0.1	0.2	0.5	1
2,3,3',4,4',5'-Hexachlorobiphenyl	157	0.05	0.1	0.2	0.5	1
2,3',4,4',5,5'-Hexachlorobiphenyl	167	0.05	0.1	0.2	0.5	1
3,3',4,4',5,5'-Hexachlorobiphenyl	169	0.05	0.1	0.2	0.5	1
2,2',3,3',4,4',5-Heptachlorobiphenyl	170	0.05	0.1	0.2	0.5	1
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	0.05	0.1	0.2	0.5	1
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	0.05	0.1	0.2	0.5	1

MASS-LABELLED PCB CONGENER

Sampling and Syringe Spikes

*3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	5	5	5	5	5
**2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	5	5	5	5	5
**2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	5	5	5	5	5
**2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	5	5	5	5	5

Surrogate/Extraction Spikes

3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	5	5	5	5	5
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	5	5	5	5	5
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	5	5	5	5	5
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	5	5	5	5	5
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	5	5	5	5	5
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	5	5	5	5	5
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	5	5	5	5	5
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	5	5	5	5	5
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	5	5	5	5	5
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	5	5	5	5	5
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	5	5	5	5	5
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	5	5	5	5	5
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	5	5	5	5	5
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	5	5	5	5	5

* for pre-sampling spike

** for syringe spike / recovery standard

Catalogue Number	Product (nonane solution)	Qty/Conc
確 PCB-A5-CS5	CS5	200 µl
確 PCB-A5-CS6	CS6	200 µl
確 PCB-A5-CS7	CS7	200 µl
確 PCB-A5-CS8	CS8	200 µl
確 PCB-A5-CS9	CS9	200 µl
確 PCB-A5-CS10	CS10	200 µl
確 PCB-A5-CS11	CS11	200 µl

CS5 (ng/ml)	CS6 (ng/ml)	CS7 (ng/ml)	CS8 (ng/ml)	CS9 (ng/ml)	CS10 (ng/ml)	CS11 (ng/ml)
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
2	5	10	20	50	100	250
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5
5	5	5	5	5	5	5

PCB-CVS-B10

Catalogue Number	Product (nonane solution)	Qty/Conc
確 PCB-CVS-B10-Set1	CS1/CS2/CS3/CS4/CS5	1Kit (5×200 µl ampoules)
確 PCB-CVS-B10-Set2	CS2/CS3/CS4/CS5/CS6	1Kit (5×200 µl ampoules)
確 PCB-B10-CS1	CS1	200 µl
確 PCB-B10-CS2	CS2	200 µl
確 PCB-B10-CS3	CS3	200 µl
確 PCB-B10-CS4	CS4	200 µl
確 PCB-B10-CS5	CS5	200 µl
確 PCB-B10-CS6	CS6	200 µl
確 PCB-B10-CS7	CS7	200 µl

Native PCB Congeners	IUPAC	CS1 (ng/ml)	CS2 (ng/ml)	CS3 (ng/ml)	CS4 (ng/ml)	CS5 (ng/ml)	CS6 (ng/ml)	CS7 (ng/ml)
3,3',4,4'-Tetrachlorobiphenyl	77	0.2	1	4	20	100	400	1000
3,4,4',5-Tetrachlorobiphenyl	81	0.2	1	4	20	100	400	1000
2,3,3',4,4'-Pentachlorobiphenyl	105	0.2	1	4	20	100	400	1000
2,3,4,4',5-Pentachlorobiphenyl	114	0.2	1	4	20	100	400	1000
2,3',4,4',5-Pentachlorobiphenyl	118	0.2	1	4	20	100	400	1000
2',3,4,4',5-Pentachlorobiphenyl	123	0.2	1	4	20	100	400	1000
3,3',4,4',5-Pentachlorobiphenyl	126	0.2	1	4	20	100	400	1000
2,3,3',4,4',5-Hexachlorobiphenyl	156	0.2	1	4	20	100	400	1000
2,3,3',4,4',5'-Hexachlorobiphenyl	157	0.2	1	4	20	100	400	1000
2,3',4,4',5,5'-Hexachlorobiphenyl	167	0.2	1	4	20	100	400	1000
3,3',4,4',5,5'-Hexachlorobiphenyl	169	0.2	1	4	20	100	400	1000
2,2',3,3',4,4',5-Heptachlorobiphenyl	170	0.2	1	4	20	100	400	1000
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	0.2	1	4	20	100	400	1000
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	0.2	1	4	20	100	400	1000
Mass-Labelled PCB Congeners								
Surrogate/Extraction Spikes								
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	10	10	10	10	10	10	10
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	10	10	10	10	10	10	10
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	10	10	10	10	10	10	10
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	10	10	10	10	10	10	10
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	10	10	10	10	10	10	10
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	10	10	10	10	10	10	10
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	10	10	10	10	10	10	10
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	10	10	10	10	10	10	10
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	10	10	10	10	10	10	10
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	10	10	10	10	10	10	10
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	10	10	10	10	10	10	10
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	10	10	10	10	10	10	10
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	10	10	10	10	10	10	10
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	10	10	10	10	10	10	10
Sampling and Syringe Spikes								
* 3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	10	10	10	10	10	10	10
** 2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	10	10	10	10	10	10	10
** 2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	10	10	10	10	10	10	10
** 2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	10	10	10	10	10	10	10
** 2,2',3,3',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	178L	10	10	10	10	10	10	10

* for pre-sampling spike

** for syringe spike/recovery standard

確 第一種特定化学物質



ダイオキシン類検量線作成用標準液

SUPPORT SOLUTIONS

Mass-Labelled

PCDDs/PCDFs/DL-PCBs Solution/Mixtures

PCDDs/PCDFs Solution/Mixtures

DL-PCBs Solution/Mixtures

PCBs Individual Solutions

NATIVE SOLUTION/MIXTURES

Native

PCDDs/PCDFs/DL-PCBs Solution/Mixtures

PCDDs/PCDFs Solution/Mixtures

DL-PCBs Solution/Mixtures



DFP-LCS-B

Support Solutions for **DFP-CVS-B10**, **DF-CVS-C10** and **PCB-CVS-B10**

Catalogue Number	Product (nonane solution)	Qty/Conc			
確 DFP-LCS-B	Mass-Labelled PCDD/PCDF/PCB Solution/Mixture	1.2 ml			
確 DFP-LCS-B100	Mass-Labelled PCDD/PCDF/PCB Solution/Mixture	1.2 ml			
確 DFP-LCS-B20	Mass-Labelled PCDD/PCDF/PCB Solution/Mixture	1.2 ml			
確 DFP-LCS-A	Mass-Labelled PCDD/PCDF/PCB Solution/Mixture	1.2 ml			

Mass-Labelled PCDDs & PCDFs	DFP-LCS-B (ng/ml)	DFP-LCS-B100 (ng/ml)	DFP-LCS-B20 (ng/ml)	DFP-LCS-A (ng/ml)
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	—
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	100	20	10
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	2000	200	40	20
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	1000	100	20	10
Octachloro[¹³ C ₁₂]dibenzofuran	2000	200	40	20

Mass-Labelled PCB Congeners	IUPAC	DFP-LCS-B (ng/ml)	DFP-LCS-B100 (ng/ml)	DFP-LCS-B20 (ng/ml)	DFP-LCS-A (ng/ml)
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	1000	100	20	10
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	1000	100	20	10
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	1000	100	20	10
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	1000	100	20	10
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	1000	100	20	10
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	1000	100	20	10
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	1000	100	20	10
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	1000	100	20	10
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	1000	100	20	10
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	1000	100	20	10
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	1000	100	20	10
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	1000	100	20	10
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	1000	100	20	10
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	1000	100	20	10

Support Solutions for DF-CVS-A10, DF-CVS-A5, DF-CVS-B10 and DF-CVS-C10

Catalogue Number	Product (nonane solution)	Qty/Conc			
DF-LCS-A	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml			
DF-LCS-A200	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml			
DF-LCS-A40	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml			
DF-LCS-A20	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml			
		DF-LCS-A	DF-LCS-A200	DF-LCS-A40	DF-LCS-A20
		(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)
Mass-Labelled PCDDs					
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40	20
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin		2000	400	80	40
Mass-Labelled PCDFs					
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40	20
Octachloro[¹³ C ₁₂]dibenzofuran		2000	400	80	40

DF-LCS-B

Support Solutions for **DF-CVS-A10, DF-CVS-A5, DF-CVS-B10, DF-CVS-C10 and DFP-CVS-B10**

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-LCS-B	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-B200	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-B100	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-B40	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-B20	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml

	DF-LCS-B (ng/ml)	DF-LCS-B200 (ng/ml)	DF-LCS-B100 (ng/ml)	DF-LCS-B40 (ng/ml)	DF-LCS-B20 (ng/ml)
Mass-Labelled PCDDs					
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40	20
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	2000	400	200	80	40
Mass-Labelled PCDFs					
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40	20
Octachloro[¹³ C ₁₂]dibenzofuran	2000	400	200	80	40

Support Solutions for DF-CVS-A10, DF-CVS-A5, DF-CVS-B10 and DF-CVS-C10

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-LCS-C	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-C200	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-C100	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml
DF-LCS-C40	Mass-Labelled PCDD/PCDF Solution/Mixture	1.2 ml

	DF-LCS-C (ng/ml)	DF-LCS-C200 (ng/ml)	DF-LCS-C100 (ng/ml)	DF-LCS-C40 (ng/ml)
Mass-Labelled PCDDs				
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin	1000	200	100	40
Octachloro[¹³ C ₁₂]dibenzo-p-dioxin	2000	400	200	80
Mass-Labelled PCDFs				
2,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
1,2,3,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
2,3,4,7,8-Pentachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
1,2,3,4,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
1,2,3,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
1,2,3,7,8,9-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
2,3,4,6,7,8-Hexachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
1,2,3,4,6,7,8-Heptachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
1,2,3,4,7,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran	1000	200	100	40
Octachloro[¹³ C ₁₂]dibenzofuran	2000	400	200	80

MASS-LABELLED PCDDs & PCDFs: SOLUTION/MIXTURES

Support Solutions for **DF-CVS-A10**, **DF-CVS-A5** and **DF-CVS-B10**

Catalogue Number	Product (nonane solution)	Qty/Conc		
DF-IS-A	Mass-Labelled PCDD Internal Standard Solution	1.2 ml		
DF-IS-A200	Mass-Labelled PCDD Internal Standard Solution	1.2 ml		
DF-IS-A40	Mass-Labelled PCDD Internal Standard Solution	1.2 ml		
Mass-Labelled PCDD		DF-IS-A (ng/ml)	DF-IS-A200 (ng/ml)	DF-IS-A40 (ng/ml)
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40
DF-IS-B	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
DF-IS-B200	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
DF-IS-B40	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDD/PCDF		DF-IS-B (ng/ml)	DF-IS-B200 (ng/ml)	DF-IS-B40 (ng/ml)
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
DF-IS-C	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
DF-IS-C200	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
DF-IS-C40	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDD/PCDF		DF-IS-C (ng/ml)	DF-IS-C200 (ng/ml)	DF-IS-C40 (ng/ml)
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
DF-IS-D	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
DF-IS-D200	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
DF-IS-D40	Mass-Labelled PCDD/PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDD/PCDF		DF-IS-D (ng/ml)	DF-IS-D200 (ng/ml)	DF-IS-D40 (ng/ml)
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	200	40
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40

MASS-LABELLED PCDDs & PCDFs: SOLUTION/MIXTURES

Support Solutions for **DF-CVS-A10**, **DF-CVS-A5** and **DF-CVS-B10**

Catalogue Number	Product (nonane solution)	Qty/Conc		
DF-IS-E	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-E200	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-E40	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDFs		DF-IS-E (ng/ml)	DF-IS-E200 (ng/ml)	DF-IS-E40 (ng/ml)
1,3,6,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
DF-IS-F	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-F200	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-F40	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDFs		DF-IS-F (ng/ml)	DF-IS-F200 (ng/ml)	DF-IS-F40 (ng/ml)
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
DF-IS-G	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-G200	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-G40	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDFs		DF-IS-G (ng/ml)	DF-IS-G200 (ng/ml)	DF-IS-G40 (ng/ml)
1,2,3,4,6-Pentachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
DF-IS-H	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-H200	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-H40	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDFs		DF-IS-H (ng/ml)	DF-IS-H200 (ng/ml)	DF-IS-H40 (ng/ml)
1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
DF-IS-I	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-I200	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
DF-IS-I40	Mass-Labelled PCDF Internal Standard Solution	1.2 ml		
Mass-Labelled PCDFs		DF-IS-I (ng/ml)	DF-IS-I200 (ng/ml)	DF-IS-I40 (ng/ml)
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6-Pentachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran		1000	200	40
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1000	200	40

MASS-LABELLED PCDDs & PCDFs: SOLUTION/MIXTURES

Support Solutions for **DF-CVS-A10**, **DF-CVS-A5** and **DF-CVS-B10**

Catalogue Number	Product (nonane solution)	Qty/Conc
確 DFP-IS-A	Mass-Labelled PCDF/PCB Syringe Spike	1.2 ml
Mass-Labelled PCB Congener 2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	IUPAC 70L	DFP-IS-A 10 ng/ml
Mass-Labelled PCDFs 1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran 1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		10 ng/ml 10 ng/ml
確 DFP-SS-A	Mass-Labelled PCDD/PCB Sampling Spike	1.2 ml
Mass-Labelled PCB Congener 3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	IUPAC 79L	DFP-SS-A 50 ng/ml
Mass-Labelled PCDD 1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		50 ng/ml
MDF-1278-1		1.2 ml
1,2,7,8-Tetrachloro[¹³ C ₁₂]dibenzofuran		1 µg/ml
MDF-12346-1		1.2 ml
1,2,3,4,6-Pentachloro[¹³ C ₁₂]dibenzofuran		1 µg/ml
MDF-123469-1		1.2 ml
1,2,3,4,6,9-Hexachloro[¹³ C ₁₂]dibenzofuran		1 µg/ml
MDF-1234689-1		1.2 ml
1,2,3,4,6,8,9-Heptachloro[¹³ C ₁₂]dibenzofuran		1 µg/ml

MASS-LABELLED PCDDs & PCDFs: SOLUTION/MIXTURES

Support Solutions for **DFP-CVS-B10** and **DF-CVS-C10**

Catalogue Number	Product (nonane solution)	Qty/Conc		
DF-IS-J	Mass-Labelled PCDD Syringe Spike Solution	1.2 ml		
DF-IS-J100	Mass-Labelled PCDD Syringe Spike Solution	1.2 ml		
DF-IS-J20	Mass-Labelled PCDD Syringe Spike Solution	1.2 ml		
Mass-Labelled PCDDs		DF-IS-J (ng/ml)	DF-IS-J100 (ng/ml)	DF-IS-J20 (ng/ml)
1,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	100	20
1,2,4,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	100	20
1,2,3,4,6,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	100	20
1,2,3,4,6,7,9-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	100	20
DF-SS-A	Mass-Labelled PCDD Sampling Spike Solution	1.2 ml		
DF-SS-A100	Mass-Labelled PCDD Sampling Spike Solution	1.2 ml		
DF-SS-A20	Mass-Labelled PCDD Sampling Spike Solution	1.2 ml		
Mass-Labelled PCDD		DF-SS-A (ng/ml)	DF-SS-A100 (ng/ml)	DF-SS-A20 (ng/ml)
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		1000	100	20

MASS-LABELLED PCDDs & DL-PCBs: SOLUTION/MIXTURES

Support Solutions for **DFP-CVS-B10** and **DFP-CVS-B1**

Catalogue Number	Product (nonane solution)	Qty/Conc		
確 DFP-IS-B10	Mass-Labelled PCDD/PCB Syringe Spike Solution	1.2ml		
Mass-Labelled PCDDs		DFP-IS-B10 (ng/ml)		
1,3,7,8-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		10		
1,2,4,7,8-Pentachloro[¹³ C ₁₂]dibenzo-p-dioxin		10		
1,2,3,4,6,8-Hexachloro[¹³ C ₁₂]dibenzo-p-dioxin		10		
1,2,3,4,6,7,9-Heptachloro[¹³ C ₁₂]dibenzo-p-dioxin		10		
Mass-Labelled PCB Congeners	IUPAC			
2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	10		
2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	10		
2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	10		
2,2',3,3',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	178L	10		
確 DFP-SS-A10	Mass-Labelled PCDD/PCB Sampling Spike Solution	1.2ml		
Mass-Labelled PCDD		DFP-SS-A10 (ng/ml)		
1,2,3,4-Tetrachloro[¹³ C ₁₂]dibenzo-p-dioxin		10		
Mass-Labelled PCB Congener	IUPAC			
3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	10		

NATIVE PCDDs & PCDFs: SOLUTION/MIXTURES

Support Solutions for **DF-CVS-A10**, **DF-CVS-A5** and **DF-CVS-B10**

Catalogue Number	Product (nonane solution)	Qty/Conc
DF-ST-A	Native PCDD/PCDF Solution/Mixture	1.2 ml
NK-ST-A4	Native PCDD/PCDF Solution/Mixture	1.2 ml
DF-ST-B	Native PCDD/PCDF Solution/Mixture	1.2 ml
DF-ST-C10	Native PCDD/PCDF Solution/Mixture	1.2 ml
確 DFP-ST-C10	Native PCDD/PCDF/PCB Solution/Mixture	1.2 ml

	DF-ST-A (ng/ml)	NK-ST-A4 (ng/ml)	DF-ST-B (ng/ml)	DF-ST-C10 (ng/ml)	DFP-ST-C10 (ng/ml)
NATIVE PCDDs					
1,2,8,9-Tetrachlorodibenzo-p-dioxin	1000	—	1000	10	10
1,3,6,8-Tetrachlorodibenzo-p-dioxin	1000	—	1000	10	10
1,3,7,9-Tetrachlorodibenzo-p-dioxin	1000	—	1000	—	—
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1000	2	1000	10	10
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1000	2	1000	10	10
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1000	2	2000	20	20
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1000	2	2000	20	20
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	1000	2	2000	20	20
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1000	2	2000	20	20
Octachlorodibenzo-p-dioxin	2000	4	5000	50	50
NATIVE PCDFs					
1,2,7,8-Tetrachlorodibenzofuran	1000	—	1000	—	—
1,2,8,9-Tetrachlorodibenzofuran	1000	—	1000	10	10
1,3,6,8-Tetrachlorodibenzofuran	1000	—	1000	10	10
2,3,7,8-Tetrachlorodibenzofuran	1000	2	1000	10	10
1,2,3,7,8-Pentachlorodibenzofuran	1000	2	1000	10	10
2,3,4,7,8-Pentachlorodibenzofuran	1000	2	1000	10	10
1,2,3,4,7,8-Hexachlorodibenzofuran	1000	2	2000	20	20
1,2,3,6,7,8-Hexachlorodibenzofuran	1000	2	2000	20	20
1,2,3,7,8,9-Hexachlorodibenzofuran	1000	2	2000	20	20
2,3,4,6,7,8-Hexachlorodibenzofuran	1000	2	2000	20	20
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1000	2	2000	20	20
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1000	2	2000	20	20
Octachlorodibenzofuran	2000	4	5000	50	50
Native PCB Congeners					
	IUPAC				
3,3',4,4'-Tetrachlorobiphenyl	77				20
3,4,4',5-Tetrachlorobiphenyl	81				20
2,3,3',4,4'-Pentachlorobiphenyl	105				20
2,3,4,4',5-Pentachlorobiphenyl	114				20
2,3',4,4',5-Pentachlorobiphenyl	118				20
2',3,4,4',5-Pentachlorobiphenyl	123				20
3,3',4,4',5-Pentachlorobiphenyl	126				20
2,3,3',4,4',5-Hexachlorobiphenyl	156				20
2,3,3',4,4',5'-Hexachlorobiphenyl	157				20
2,3',4,4',5,5'-Hexachlorobiphenyl	167				20
3,3',4,4',5,5'-Hexachlorobiphenyl	169				20
2,2',3,3',4,4',5-Heptachlorobiphenyl	170				20
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180				20
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189				20

確 第一種特定化学物質

MASS-LABELLED: INDIVIDUAL PCBs

Catalogue Number	Product	Qty/Conc
確 MBP-1	2-Chloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-3	4-Chloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-4	2,2'-Dichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-8	2,4'-Dichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-9	2,5-Dichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-11	3,3'-Dichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-15	4,4'-Dichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-19	2,2',6-Trichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-28	2,4,4'-Trichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-31	2,4',5-Trichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-37	3,4,4'-Trichloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-52	2,2',5,5'-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-54	2,2',6,6'-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-60	2,3,4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-70	2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-77	3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-79	3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-81	3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-95	2,2',3,5',6-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-101	2,2',4,5,5'-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-104	2,2',4,6,6'-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-105	2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-111	2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-114	2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-118	2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-123	2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-126	3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-127	3,3',4,5,5'-Pentachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-133	2,2',3,3',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-138	2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-153	2,2',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-155	2,2',4,4',6,6'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-156	2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-157	2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-159	2,3,3',4,5,5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-162	2,3,3',4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-167	2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-169	3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-170	2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-178	2,2',3,3',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-180	2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-188	2,2',3,4',5,6,6'-Heptachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-189	2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-194	2,2',3,3',4,4',5,5'-Octachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-202	2,2',3,3',5,5',6,6'-Octachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-205	2,3,3',4,4',5,5',6-Octachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-206	2,2',3,3',4,4',5,5',6-Nonachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-208	2,2',3,3',4,5,5',6,6'-Nonachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml
確 MBP-209	Decachloro[¹³ C ₁₂]biphenyl	1.2 ml / 50 µg/ml

MASS-LABELLED PCBs: SOLUTION/MIXTURES

Support Solutions for **PCB-CVS-A10** and **PCB-CVS-A5**

Catalogue Number	Product (nonane solution)	Qty/Conc				
確 PCB-LCS-A	Mass-Labelled PCB Solution/Mixture	1.2 ml				
確 PCB-LCS-A1	Mass-Labelled PCB Solution/Mixture	1.2 ml				
確 PCB-LCS-A200	Mass-Labelled PCB Solution/Mixture	1.2 ml				
確 PCB-LCS-A100	Mass-Labelled PCB Solution/Mixture	1.2 ml				
確 PCB-LCS-A20	Mass-Labelled PCB Solution/Mixture	1.2 ml				
Mass-Labelled PCB CONGENERS	IUPAC	PCB-LCS-A	PCB-LCS-A1	PCB-LCS-A200	PCB-LCS-A100	PCB-LCS-A20
		(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	2000	1000	200	100	20
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	2000	1000	200	100	20
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	2000	1000	200	100	20
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	2000	1000	200	100	20
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	2000	1000	200	100	20
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	2000	1000	200	100	20
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	2000	1000	200	100	20
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	2000	1000	200	100	20
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	2000	1000	200	100	20
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	2000	1000	200	100	20
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	2000	1000	200	100	20
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	2000	1000	200	100	20
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	2000	1000	200	100	20
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	2000	1000	200	100	20
確 PCB-IS-A	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-IS-A100	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-IS-A20	Mass-Labelled PCB Solution	1.2 ml				
Mass-Labelled PCB CONGENER	IUPAC	PCB-IS-A	PCB-IS-A100	PCB-IS-A20		
		(ng/ml)	(ng/ml)	(ng/ml)		
2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	1000	100	20		
確 PCB-IS-B	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-IS-B100	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-IS-B20	Mass-Labelled PCB Solution	1.2 ml				
Mass-Labelled PCB CONGENERS	IUPAC	PCB-IS-B	PCB-IS-B100	PCB-IS-B20		
		(ng/ml)	(ng/ml)	(ng/ml)		
2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	1000	100	20		
2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	1000	100	20		
2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	1000	100	20		
2,2',3,4,4',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	178L	1000	100	20		
確 PCB-IS-C	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-IS-C100	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-IS-C20	Mass-Labelled PCB Solution	1.2 ml				
Mass-Labelled PCB CONGENERS	IUPAC	PCB-IS-C	PCB-IS-C100	PCB-IS-C20		
		(ng/ml)	(ng/ml)	(ng/ml)		
2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	1000	100	20		
2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	1000	100	20		
2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	1000	100	20		
2,2',3,3',5,5',6-Heptachloro[¹³ C ₁₂]biphenyl	178L	1000	100	20		
確 PCB-SS-A	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-SS-A100	Mass-Labelled PCB Solution	1.2 ml				
確 PCB-SS-A20	Mass-Labelled PCB Solution	1.2 ml				
Mass-Labelled PCB CONGENER	IUPAC	PCB-SS-A	PCB-SS-A100	PCB-SS-A20		
		(ng/ml)	(ng/ml)	(ng/ml)		
3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	1000	100	20		

確 第一種特定化学物質

NATIVE PCBs: SOLUTION/MIXTURE

Support solutions for **PCB-CVS-A10** and **PCB-CVS-A5**

Catalogue Number	Product (nonane solution)	Qty/Conc
確 PCB-ST-A	Native PCB Solution	1.2 ml
確 PCB-ST-A10	Native PCB Solution	1.2 ml
確 PCB-ST-A2	Native PCB Solution	1.2 ml
確 PCB-ST-C20	Native PCB Solution	1.2 ml

Mass-Labelled PCB CONGENERS	IUPAC	PCB-ST-A (ng/ml)	PCB-ST-A10 (ng/ml)	PCB-ST-A2 (ng/ml)	PCB-ST-C20 (ng/ml)
3,3',4,4'-Tetrachlorobiphenyl	77	2000	10	2	20
3,4,4',5-Tetrachlorobiphenyl	81	2000	10	2	20
2,3,3',4,4'-Pentachlorobiphenyl	105	2000	10	2	20
2,3,4,4',5-Pentachlorobiphenyl	114	2000	10	2	20
2,3',4,4',5-Pentachlorobiphenyl	118	2000	10	2	20
2',3,4,4',5-Pentachlorobiphenyl	123	2000	10	2	20
3,3',4,4',5-Pentachlorobiphenyl	126	2000	10	2	20
2,3,3',4,4',5-Hexachlorobiphenyl	156	2000	10	2	20
2,3,3',4,4',5'-Hexachlorobiphenyl	157	2000	10	2	20
2,3',4,4',5,5'-Hexachlorobiphenyl	167	2000	10	2	20
3,3',4,4',5,5'-Hexachlorobiphenyl	169	2000	10	2	20
2,2',3,3',4,4',5-Heptachlorobiphenyl	170	2000	10	2	20
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	2000	10	2	20
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	2000	10	2	20



Total PCBs 標準液

Calibration Solutions

Total PCBs Mixture

Support Solutions

Mass-Labelled PCBs Solution/Mixture

Native PCBs Solution/Mixture



TPCB-CVS-A

Catalogue Number	Product (nonane solution)	Qty/Conc
確 TPCB-CVS-A	Calibration Solution for HRGC/HRMS Analysis Polychlorinated Biphenyls (PCBs)	1Kit (5×200 µl ampoules)
確 TPCB-CSL-A	CSL	200 µl
確 TPCB-CS1-A	CS1	200 µl
確 TPCB-CS2-A	CS2	200 µl
確 TPCB-CS3-A	CS3	200 µl
確 TPCB-CS4-A	CS4	200 µl
確 TPCB-CS5-A	CS5	200 µl

	CSL-A (ng/ml)	CS1-A (ng/ml)	CS2-A (ng/ml)	CS3-A (ng/ml)	CS4-A (ng/ml)	CS5-A (ng/ml)
NATIVE CHLORINATED BIPHENYLS						
CHLOROBIPHENYLS						
1, 3	0.4	2	10	50	200	1000
DICHLOROBIPHENYLS						
4, 8, 10, 11, 12, 15	0.4	2	10	50	200	1000
TRICHLOROBIPHENYLS						
18, 19, 28, 31, 33, 35, 37, 38	0.2	1	5	25	100	500
TETRACHLOROBIPHENYLS						
44, 47, 49, 52, 54, 57, 66, 70, 74, 77, 78, 79, 81	0.2	1	5	25	100	500
PENTACHLOROBIPHENYLS						
87, 95, 99, 101, 104, 105, 110, 114, 118, 123, 126	0.2	1	5	25	100	500
HEXACHLOROBIPHENYLS						
138, 149, 153, 155, 156, 157, 162, 167, 169	0.2	1	5	25	100	500
HEPTACHLOROBIPHENYLS						
170, 174, 180, 187, 188, 189	0.2	1	5	25	100	500
OCTACHLOROBIPHENYLS						
194, 195, 199, 202, 203, 205	0.4	2	10	50	200	1000
NONACHLOROBIPHENYLS						
206, 208	0.4	2	10	50	200	1000
DECACHLOROBIPHENYL						
209	0.4	2	10	50	200	1000
MASS-LABELLED CHLORINATED BIPHENYLS						
EXTRACTION STANDARDS						
4-Chloro[¹³ C ₁₂]biphenyl ☆☆	3L	50	50	50	50	50
2,4'-Dichloro[¹³ C ₁₂]biphenyl ☆☆	8L	50	50	50	50	50
3,3'-Dichloro[¹³ C ₁₂]biphenyl ☆☆	11L	50	50	50	50	50
2,4,4'-Trichloro[¹³ C ₁₂]biphenyl ☆☆☆	28L	25	25	25	25	25
2,4',5'-Trichloro[¹³ C ₁₂]biphenyl ☆☆☆	31L	25	25	25	25	25
2,2',5,5'-Tetrachloro[¹³ C ₁₂]biphenyl ☆☆☆	52L	25	25	25	25	25
2,2',4,5,5'-Pentachloro[¹³ C ₁₂]biphenyl ☆☆☆	101L	25	25	25	25	25
2,3',4,4',5'-Pentachloro[¹³ C ₁₂]biphenyl ★★☆☆	118L	25	25	25	25	25
2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl ☆☆☆	138L	25	25	25	25	25
2,2',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl ☆☆☆	153L	25	25	25	25	25
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl ★★☆☆	180L	25	25	25	25	25
2,2',3,3',4,4',5,5'-Octachloro[¹³ C ₁₂]biphenyl ☆☆☆	194L	50	50	50	50	50
2,2',3,3',4,4',5,5',6'-Nonachloro[¹³ C ₁₂]biphenyl ☆☆☆	206L	50	50	50	50	50
2,2',3,3',4,4',5,5',6,6'-Decachloro[¹³ C ₁₂]biphenyl ☆☆☆	209L	50	50	50	50	50
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl ★	77L	25	25	25	25	25
3,4,4',5'-Tetrachloro[¹³ C ₁₂]biphenyl ★	81L	25	25	25	25	25
2,3,3',4,4',5'-Pentachloro[¹³ C ₁₂]biphenyl ★★	105L	25	25	25	25	25
2,3,4,4',5'-Pentachloro[¹³ C ₁₂]biphenyl ★★	114L	25	25	25	25	25
2',3,4,4',5'-Pentachloro[¹³ C ₁₂]biphenyl ★★	123L	25	25	25	25	25
3,3',4,4',5'-Pentachloro[¹³ C ₁₂]biphenyl ★	126L	25	25	25	25	25
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl ★★	156L	25	25	25	25	25
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl ★★	157L	25	25	25	25	25
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl ★★	167L	25	25	25	25	25
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl ★	169L	25	25	25	25	25
2,2',3,3',4,4',5'-Heptachloro[¹³ C ₁₂]biphenyl ★★	170L	25	25	25	25	25
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl ★★	189L	25	25	25	25	25
RECOVERY/INTERNAL STANDARDS						
2,5-Dichloro[¹³ C ₁₂]biphenyl	9L	50	50	50	50	50
2,2',6'-Trichloro[¹³ C ₁₂]biphenyl	19L	25	25	25	25	25
2,3',4',5'-Tetrachloro[¹³ C ₁₂]biphenyl	70L	25	25	25	25	25
2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	25	25	25	25	25
2,3,3',4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	162L	25	25	25	25	25
2,2',3,3',5,5',6'-Heptachloro[¹³ C ₁₂]biphenyl	178L	25	25	25	25	25
2,3,3',4,4',5,5',6'-Octachloro[¹³ C ₁₂]biphenyl	205L	50	50	50	50	50
SAMPLING/CLEANUP STANDARDS						
2,2'-Dichloro[¹³ C ₁₂]biphenyl	4L	50	50	50	50	50
3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	25	25	25	25	25

- ★ non-ortho-PCBs
- ★★ mono-ortho-PCBs
- ★★★ di-ortho-PCBs
- ☆☆ 厚生省告示192

確 第一種特定化学物質

SUPPORT SOLUTION FOR TPCB-CVS-A

Catalogue Number	Product (nonane solution)	Qty/Conc			
確 TPCB-LCS-A100		1.2 ml			
確 TPCB-LCS-A25		1.2 ml			
確 TPCB-LCS-B100		1.2 ml			
確 TPCB-LCS-B25		1.2 ml			
		TPCB-LCS-A100 (ng/ml)	TPCB-LCS-A25 (ng/ml)	TPCB-LCS-B100 (ng/ml)	TPCB-LCS-B25 (ng/ml)
4-Chloro ^[13C₁₂] biphenyl ☆☆	3L	200	50	200	50
2,4'-Dichloro ^[13C₁₂] biphenyl ☆☆	8L	200	50	200	50
3,3'-Dichloro ^[13C₁₂] biphenyl	11L	200	50	200	50
2,4,4'-Trichloro ^[13C₁₂] biphenyl ☆☆	28L	100	25	100	25
2,4',5'-Trichloro ^[13C₁₂] biphenyl	31L	100	25	100	25
2,2',5,5'-Tetrachloro ^[13C₁₂] biphenyl ☆☆	52L	100	25	100	25
2,2',4,5,5'-Pentachloro ^[13C₁₂] biphenyl ☆☆	101L	100	25	100	25
2,3',4,4',5'-Pentachloro ^[13C₁₂] biphenyl ★★ ☆☆	118L	100	25	100	25
252,2',3,4,4',5'-Hexachloro ^[13C₁₂] biphenyl ☆☆	138L	100	25	100	25
2,2',4,4',5'-Hexachloro ^[13C₁₂] biphenyl ☆☆	153L	100	25	100	25
2,2',3,4,4',5,5'-Heptachloro ^[13C₁₂] biphenyl ★★★ ☆☆	180L	100	25	100	25
2,2',3,3',4,4',5,5'-Octachloro ^[13C₁₂] biphenyl ☆☆	194L	200	50	200	50
2,2',3,3',4,4',5,5',6,-Nonachloro ^[13C₁₂] biphenyl ☆☆	206L	200	50	200	50
2,2',3,3',4,4',5,5',6,6'-Decachloro ^[13C₁₂] biphenyl ☆☆	209L	200	50	200	50
3,3',4,4'-Tetrachloro ^[13C₁₂] biphenyl ★	77L	100	25		
3,4,4',5'-Tetrachloro ^[13C₁₂] biphenyl ★	81L	100	25		
2,3,3',4,4'-Pentachloro ^[13C₁₂] biphenyl ★★	105L	100	25		
2,3,4,4',5'-Pentachloro ^[13C₁₂] biphenyl ★★	114L	100	25		
2',3,4,4',5'-Pentachloro ^[13C₁₂] biphenyl ★★	123L	100	25		
3,3',4,4',5'-Pentachloro ^[13C₁₂] biphenyl ★	126L	100	25		
2,3,3',4,4',5'-Hexachloro ^[13C₁₂] biphenyl ★★	156L	100	25		
2,3,3',4,4',5'-Hexachloro ^[13C₁₂] biphenyl ★★	157L	100	25		
2,3',4,4',5,5'-Hexachloro ^[13C₁₂] biphenyl ★★	167L	100	25		
3,3',4,4',5,5'-Hexachloro ^[13C₁₂] biphenyl ★	169L	100	25		
2,2',3,3',4,4',5'-Heptachloro ^[13C₁₂] biphenyl ★★★	170L	100	25		
2,3,3',4,4',5,5'-Heptachloro ^[13C₁₂] biphenyl ★★	189L	100	25		
確 TPCB-IS-A100		1.2 ml			
確 TPCB-IS-A25		1.2 ml			
		TPCB-IS-A100 (ng/ml)		TPCB-IS-A25 (ng/ml)	
2,5-Dichloro ^[13C₁₂] biphenyl	9L	200		50	
2,2',6-Trichloro ^[13C₁₂] biphenyl	19L	100		25	
2,3',4',5-Tetrachloro ^[13C₁₂] biphenyl	70L	100		25	
2,3,3',5,5'-Pentachloro ^[13C₁₂] biphenyl	111L	100		25	
2,3,3',4',5,5'-Hexachloro ^[13C₁₂] biphenyl	162L	100		25	
2,2',3,3',5,5',6-Heptachloro ^[13C₁₂] biphenyl	178L	100		25	
2,3,3',4,4',5,5',6-Octachloro ^[13C₁₂] biphenyl	205L	200		50	
確 TPCB-SS-A100		1.2 ml			
確 TPCB-SS-A25		1.2 ml			
		TPCB-SS-A100 (ng/ml)		TPCB-SS-A25 (ng/ml)	
2,2'-Dichloro ^[13C₁₂] biphenyl	4L	200		50	
3,3',4,5'-Tetrachloro ^[13C₁₂] biphenyl	79L	100		25	

OIL-CVS-B

Catalogue Number	Product (nonane solution)	Qty/Conc
確 OIL-CVS-B *簡易定量法 2.2 2.3 2.4 対応	CS1-B/CS2-B/CS3-B/CS4-B/CS5-B/CS6-B	1Kit (6×200 µl ampoules)
確 OIL-CS1-B	CS1	200 µl
確 OIL-CS2-B	CS2	200 µl
確 OIL-CS3-B	CS3	200 µl
確 OIL-CS4-B	CS4	200 µl
確 OIL-CS5-B	CS5	200 µl
確 OIL-CS6-B	CS6	200 µl

	<i>IUPAC</i>	CS1-B (ng/ml)	CS2-B (ng/ml)	CS3-B (ng/ml)	CS4-B (ng/ml)	CS5-B (ng/ml)	CS6-B (ng/ml)
Native PCB Congeners							
4-Chlorobiphenyl	3	0.5	2	10	40	200	1000
2,4'-Dichlorobiphenyl	8	0.5	2	10	40	200	1000
2,4,4'-Trichlorobiphenyl	28	0.5	2	10	40	200	1000
2,2',5,5'-Tetrachlorobiphenyl	52	0.5	2	10	40	200	1000
2,2',4,5,5'-Pentachlorobiphenyl	101	0.5	2	10	40	200	1000
2,3,4,4',5-Pentachlorobiphenyl	118	0.5	2	10	40	200	1000
2,2',3,4,4',5'-Hexachlorobiphenyl	138	0.5	2	10	40	200	1000
2,2',4,4',5,5'-Hexachlorobiphenyl	153	0.5	2	10	40	200	1000
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	0.5	2	10	40	200	1000
2,2',3,3',4,4',5,5'-Octachlorobiphenyl	194	0.5	2	10	40	200	1000
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	206	0.5	2	10	40	200	1000
Decachlorobiphenyl	209	0.5	2	10	40	200	1000
Mass-Labelled PCB Congeners							
4-Chloro[¹³ C ₁₂]biphenyl	3L	40	40	40	40	40	40
2,4'-Dichloro[¹³ C ₁₂]biphenyl	8L	40	40	40	40	40	40
2,4,4'-Trichloro[¹³ C ₁₂]biphenyl	28L	40	40	40	40	40	40
2,2',5,5'-Tetrachloro[¹³ C ₁₂]biphenyl	52L	40	40	40	40	40	40
2,2',4,5,5'-Pentachloro[¹³ C ₁₂]biphenyl	101L	40	40	40	40	40	40
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	40	40	40	40	40	40
2,2',3,4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	40	40	40	40	40	40
2,2',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	153L	40	40	40	40	40	40
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	40	40	40	40	40	40
2,2',3,3',4,4',5,5'-Octachloro[¹³ C ₁₂]biphenyl	194L	40	40	40	40	40	40
2,2',3,3',4,4',5,5',6-Nonachloro[¹³ C ₁₂]biphenyl	206L	40	40	40	40	40	40
Decachloro[¹³ C ₁₂]biphenyl	209L	40	40	40	40	40	40

MASS-LABELLED PCBs : SOLUTION/MIXTURES

Catalogue Number	Product (nonane solution)	Qty/Conc
確 MBP-MXP *簡易定量法 2.2 2.3 2.4 対応	Mass-Labelled PCB Internal Standard Solution	1.2 ml
Mass-Labelled PCB Congeners	IUPAC	MBP-MXP (ng/ml)
4-Chloro ^[13C₁₂] biphenyl	3L	500
2,4'-Dichloro ^[13C₁₂] biphenyl	8L	500
2,4,4'-Trichloro ^[13C₁₂] biphenyl	28L	500
2,2',5,5'-Tetrachloro ^[13C₁₂] biphenyl	52L	500
2,2',4,5,5'-Pentachloro ^[13C₁₂] biphenyl	101L	500
2,3,4,4',5-Pentachloro ^[13C₁₂] biphenyl	118L	500
2,2',3,4,4',5'-Hexachloro ^[13C₁₂] biphenyl	138L	500
2,2',4,4',5,5'-Hexachloro ^[13C₁₂] biphenyl	153L	500
2,2',3,4,4',5,5'-Heptachloro ^[13C₁₂] biphenyl	180L	500
2,2',3,3',4,4',5,5'-Octachloro ^[13C₁₂] biphenyl	194L	500
2,2',3,3',4,4',5,5',6-Nonachloro ^[13C₁₂] biphenyl	206L	500
Decachloro ^[13C₁₂] biphenyl	209L	500
確 P48-M-ES *簡易定量法 2.5 対応	Mass-Labelled PCB Internal Standard Solution	1.2 ml
Mass-Labelled PCB Congeners	IUPAC	P48-M-ES (ng/ml)
2,4,4'-Trichloro ^[13C₁₂] biphenyl	28L	1000
2,2',5,5'-Tetrachloro ^[13C₁₂] biphenyl	52L	1000
2,2',4,5,5'-Pentachloro ^[13C₁₂] biphenyl	101L	1000
2,2',3,4,4',5'-Hexachloro ^[13C₁₂] biphenyl	138L	1000
2,2',4,4',5,5'-Hexachloro ^[13C₁₂] biphenyl	153L	1000
2,2',3,4,4',5,5'-Heptachloro ^[13C₁₂] biphenyl	180L	1000
確 P48-RS-STK *簡易定量法 2.5 対応	Mass-Labelled PCB Internal Standard Solution	1.2 ml
Mass-Labelled PCB Congeners	IUPAC	P-48-RS-STK (ng/ml)
2,3',4',5-Tetrachloro ^[13C₁₂] biphenyl	70L	1000
2,3,3',5,5'-Pentachloro ^[13C₁₂] biphenyl	111L	1000
2,2',3,3',4,4',5,-Heptachloro ^[13C₁₂] biphenyl	170L	1000
確 MBP-CG	Mass-Labelled Mono To Decachloro PCB Solution/Mixture	1.2 ml
Mass-Labelled PCB Congeners	IUPAC	MBP-CG (ng/ml)
4-Chloro ^[13C₁₂] biphenyl	3L	5000
4,4'-Dichloro ^[13C₁₂] biphenyl	15L	5000
2,4',5-Trichloro ^[13C₁₂] biphenyl	31L	5000
2,2',5,5'-Tetrachloro ^[13C₁₂] biphenyl	52L	5000
2,3',4,4',5-Chloro ^[13C₁₂] biphenyl	118L	5000
2,2',4,4',5,5'-Hexachloro ^[13C₁₂] biphenyl	153L	5000
2,2',3,4,4',5,5'-Heptachloro ^[13C₁₂] biphenyl	180L	5000
2,2',3,3',4,4',5,5'-Octachloro ^[13C₁₂] biphenyl	194L	5000
2,2',3,3',4,4',5,5',6-Nonachloro ^[13C₁₂] biphenyl	206L	5000
Decachloro ^[13C₁₂] biphenyl	209L	5000

PCB-CVS-H

Catalogue Number	Product (nonane solution)		Qty/Conc			
確 PCB-CVS-H	Calibration Solution for HRGC/HRMS Analysis Polychlorinated Biphenyls (PCBs)		1Kit (6×200 µl ampoules)			
確 PCB-CS1-H	CS1				200 µl	
確 PCB-CS2-H	CS2				200 µl	
確 PCB-CS3-H	CS3				200 µl	
確 PCB-CS4-H	CS4				200 µl	
確 PCB-CS5-H	CS5				200 µl	
確 PCB-CS6-H	CS6				200 µl	
	PCB-CS1-H	PCB-CS2-H	PCB-CS3-H	PCB-CS4-H	PCB-CS5-H	PCB-CS6-H
	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)
NATIVE CHLORINATED BIPHENYLS						
CHLOROBIPHENYLS						
1, 3	0.1	0.5	2.0	10	40	200
DICHLOROBIPHENYLS						
4, 6, 8, 10, 15	0.1	0.5	2.0	10	40	200
TRICHLOROBIPHENYLS						
16, 18, 19, 22, 28, 31, 33, 37	0.1	0.5	2.0	10	40	200
TETRACHLOROBIPHENYLS						
40, 41, 44, 49, 52, 54, 60, 66, 70, 74, 77, 81	0.1	0.5	2.0	10	40	200
PENTACHLOROBIPHENYLS						
84, 85, 87, 90, 95, 97, 99, 101, 104, 105, 110, 114, 118, 119, 123, 126	0.1	0.5	2.0	10	40	200
HEXACHLOROBIPHENYLS						
128, 129, 135, 137, 138, 141, 149, 151, 153, 155, 156, 157, 158, 167, 168, 169	0.1	0.5	2.0	10	40	200
HEPTACHLOROBIPHENYLS						
170, 171, 174, 177, 178, 180, 183, 187, 188, 189, 191, 193	0.1	0.5	2.0	10	40	200
OCTACHLOROBIPHENYLS						
194, 199, 200, 201, 202, 203, 205	0.1	0.5	2.0	10	40	200
NONACHLOROBIPHENYLS						
206, 207, 208	0.1	0.5	2.0	10	40	200
DECACHLOROBIPHENYL						
209	0.1	0.5	2.0	10	40	200
MASS-LABELLED CHLORINATED BIPHENYLS						
EXTRACTION STANDARDS						
2-Chloro[¹³ C ₁₂]biphenyl	1L	50	50	50	50	50
4-Chloro[¹³ C ₁₂]biphenyl	3L	50	50	50	50	50
2,2'-Dichloro[¹³ C ₁₂]biphenyl	4L	50	50	50	50	50
2,4'-Dichloro[¹³ C ₁₂]biphenyl	8L	50	50	50	50	50
4,4'-Dichloro[¹³ C ₁₂]biphenyl	15L	50	50	50	50	50
2,2',6-Trichloro[¹³ C ₁₂]biphenyl	19L	50	50	50	50	50
2,4,4'-Trichloro[¹³ C ₁₂]biphenyl	28L	50	50	50	50	50
2,2',5,5'-Tetrachloro[¹³ C ₁₂]biphenyl	52L	50	50	50	50	50
2,2',6,6'-Tetrachloro[¹³ C ₁₂]biphenyl	54L	50	50	50	50	50
2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	50	50	50	50	50
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	50	50	50	50	50
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	50	50	50	50	50
2,2',3,5',6-Pentachloro[¹³ C ₁₂]biphenyl	95L	50	50	50	50	50
2,2',4,5,5'-Pentachloro[¹³ C ₁₂]biphenyl	101L	50	50	50	50	50
2,2',4,6,6'-Pentachloro[¹³ C ₁₂]biphenyl	104L	50	50	50	50	50
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	50	50	50	50	50
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	50	50	50	50	50
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	50	50	50	50	50
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	50	50	50	50	50
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	50	50	50	50	50
2,2',3,4,5,5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	50	50	50	50	50
2,2',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	153L	50	50	50	50	50
2,2',4,4',6,6'-Hexachloro[¹³ C ₁₂]biphenyl	155L	50	50	50	50	50
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	50	50	50	50	50
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	50	50	50	50	50
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	50	50	50	50	50
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	50	50	50	50	50
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	50	50	50	50	50
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	50	50	50	50	50
2,2',3,4',5,6,6'-Heptachloro[¹³ C ₁₂]biphenyl	188L	50	50	50	50	50
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	50	50	50	50	50
2,2',3,3',5,5',6,6'-Octachloro[¹³ C ₁₂]biphenyl	202L	50	50	50	50	50
2,3,3',4,4',5,5',6-Octachloro[¹³ C ₁₂]biphenyl	205L	50	50	50	50	50
2,2',3,3',4,5,5',6,6'-Nonachloro[¹³ C ₁₂]biphenyl	208L	50	50	50	50	50
Decachloro[¹³ C ₁₂]biphenyl	209L	50	50	50	50	50
RECOVERY/INTERNAL STANDARDS						
2,5-Dichloro[¹³ C ₁₂]biphenyl	9L	50	50	50	50	50
3,4,4'-Trichloro[¹³ C ₁₂]biphenyl	37L	50	50	50	50	50
3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	50	50	50	50	50
2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	50	50	50	50	50
2,3,3',4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	162L	50	50	50	50	50
2,2',3,3',4,4',5,5'-Octachloro[¹³ C ₁₂]biphenyl	194L	50	50	50	50	50
2,2',3,3',4,4',5,5',6-Nonachloro[¹³ C ₁₂]biphenyl	206L	50	50	50	50	50
SAMPLING/CLEANUP STANDARDS						
2,3,4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	60L	50	50	50	50	50
2,3,3',4,5,5'-Hexachloro[¹³ C ₁₂]biphenyl	159L	50	50	50	50	50

Catalogue Number	Product (nonane solution)	Qty/Conc			
確 PCB-LCS-H	Mass-Labelled PCB Extraction Standards	1.2 ml			
確 PCB-ISS-H	Mass-Labelled PCB Internal/Recovery Standards	1.2 ml			
確 PCB-SCS-H	Mass-Labelled PCB Cleanup/Sampling Standards	1.2 ml			
確 PCB-PAR-H	Native PCB Solution	1.2 ml			
NATIVE CHLORINATED BIPHENYLS					
CHLOROBIPHENYLS					
1, 3		PCB-LCS-H (ng/ml)	PCB-ISS-H (ng/ml)	PCB-SCS-H (ng/ml)	PCB-PAR-H (ng/ml)
DICHLOROBIPHENYLS					
4, 6, 8, 10, 15		—	—	—	500
TRICHLOROBIPHENYLS					
16, 18, 19, 22, 28, 31, 33, 37		—	—	—	500
TETRACHLOROBIPHENYLS					
40, 41, 44, 49, 52, 54, 60, 66, 70, 74, 77, 81		—	—	—	500
PENTACHLOROBIPHENYLS					
84, 85, 87, 90, 95, 97, 99, 101, 104, 105, 110, 114, 118, 119, 123, 126		—	—	—	500
HEXACHLOROBIPHENYLS					
128, 129, 135, 137, 138, 141, 149, 151, 153, 155, 156, 157, 158, 167, 168, 169		—	—	—	500
HEPTACHLOROBIPHENYLS					
170, 171, 174, 177, 178, 180, 183, 187, 188, 189, 191, 193		—	—	—	500
OCTACHLOROBIPHENYLS					
194, 199, 200, 201, 202, 203, 205		—	—	—	500
NONACHLOROBIPHENYLS					
206, 207, 208		—	—	—	500
DECACHLOROBIPHENYL					
209		—	—	—	500
MASS-LABELLED CHLORINATED BIPHENYLS					
EXTRACTION STANDARDS					
2-Chloro[¹³ C ₁₂]biphenyl	1L	1000	—	—	—
4-Chloro[¹³ C ₁₂]biphenyl	3L	1000	—	—	—
2,2'-Dichloro[¹³ C ₁₂]biphenyl	4L	1000	—	—	—
2,4'-Dichloro[¹³ C ₁₂]biphenyl	8L	1000	—	—	—
4,4'-Dichloro[¹³ C ₁₂]biphenyl	15L	1000	—	—	—
2,2',6-Trichloro[¹³ C ₁₂]biphenyl	19L	1000	—	—	—
2,4,4'-Trichloro[¹³ C ₁₂]biphenyl	28L	1000	—	—	—
2,2',5,5'-Tetrachloro[¹³ C ₁₂]biphenyl	52L	1000	—	—	—
2,2',6,6'-Tetrachloro[¹³ C ₁₂]biphenyl	54L	1000	—	—	—
2,3',4',5-Tetrachloro[¹³ C ₁₂]biphenyl	70L	1000	—	—	—
3,3',4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	77L	1000	—	—	—
3,4,4',5-Tetrachloro[¹³ C ₁₂]biphenyl	81L	1000	—	—	—
2,2',3,5',6-Pentachloro[¹³ C ₁₂]biphenyl	95L	1000	—	—	—
2,2',4,5,5'-Pentachloro[¹³ C ₁₂]biphenyl	101L	1000	—	—	—
2,2',4,6,6'-Pentachloro[¹³ C ₁₂]biphenyl	104L	1000	—	—	—
2,3,3',4,4'-Pentachloro[¹³ C ₁₂]biphenyl	105L	1000	—	—	—
2,3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	114L	1000	—	—	—
2,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	118L	1000	—	—	—
2',3,4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	123L	1000	—	—	—
3,3',4,4',5-Pentachloro[¹³ C ₁₂]biphenyl	126L	1000	—	—	—
2,2',3,4,5,5'-Hexachloro[¹³ C ₁₂]biphenyl	138L	1000	—	—	—
2,2',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	153L	1000	—	—	—
2,2',4,4',6,6'-Hexachloro[¹³ C ₁₂]biphenyl	155L	1000	—	—	—
2,3,3',4,4',5-Hexachloro[¹³ C ₁₂]biphenyl	156L	1000	—	—	—
2,3,3',4,4',5'-Hexachloro[¹³ C ₁₂]biphenyl	157L	1000	—	—	—
2,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	167L	1000	—	—	—
3,3',4,4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	169L	1000	—	—	—
2,2',3,3',4,4',5-Heptachloro[¹³ C ₁₂]biphenyl	170L	1000	—	—	—
2,2',3,4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	180L	1000	—	—	—
2,2',3,4',5,6,6'-Heptachloro[¹³ C ₁₂]biphenyl	188L	1000	—	—	—
2,3,3',4,4',5,5'-Heptachloro[¹³ C ₁₂]biphenyl	189L	1000	—	—	—
2,2',3,3',5,5',6,6'-Octachloro[¹³ C ₁₂]biphenyl	202L	1000	—	—	—
2,3,3',4,4',5,5',6-Octachloro[¹³ C ₁₂]biphenyl	205L	1000	—	—	—
2,2',3,3',4,5,5',6,6'-Nonachloro[¹³ C ₁₂]biphenyl	208L	1000	—	—	—
Decachloro[¹³ C ₁₂]biphenyl	209L	1000	—	—	—
RECOVERY/INTERNAL STANDARDS					
2,5-Dichloro[¹³ C ₁₂]biphenyl	9L	—	1000	—	—
3,4,4'-Trichloro[¹³ C ₁₂]biphenyl	37L	—	1000	—	—
3,3',4,5'-Tetrachloro[¹³ C ₁₂]biphenyl	79L	—	1000	—	—
2,3,3',5,5'-Pentachloro[¹³ C ₁₂]biphenyl	111L	—	1000	—	—
2,3,3',4',5,5'-Hexachloro[¹³ C ₁₂]biphenyl	162L	—	1000	—	—
2,2',3,3',4,4',5,5'-Octachloro[¹³ C ₁₂]biphenyl	194L	—	1000	—	—
2,2',3,3',4,4',5,5',6-Nonachloro[¹³ C ₁₂]biphenyl	206L	—	1000	—	—
SAMPLING/CLEANUP STANDARDS					
2,3,4,4'-Tetrachloro[¹³ C ₁₂]biphenyl	60L	—	—	1000	—
2,3,3',4,5,5'-Hexachloro[¹³ C ₁₂]biphenyl	159L	—	—	1000	—

NATIVE PCBs : SOLUTION/MIXTURES

Catalogue Number	Product (nonane solution)	Qty/Conc
確 BP-WD Window Defining Mixture Solution for DB-5 or Equivalent Column	Native PCB Window Defining Mixture Solution	1.2 ml
確 BP-MXP *簡易定量法 2.2 2.3 2.4 対応	Native PCB Mixture Solution	1.2 ml
確 PCB-ST-D *簡易定量法 2.5 対応	Native PCB Mixture Solution	1.2 ml

Native PCB Congeners	IUPAC	BP-WD (ng/ml)	BP-MXP (ng/ml)	PCB-ST-D (ng/ml)
Biphenyl	—	2500	—	—
2-Chlorobiphenyl	1	2500	—	—
4-Chlorobiphenyl	3	2500	2000	—
2,4'-Dichlorobiphenyl	8	—	2000	2000
2,6-Dichlorobiphenyl	10	2500	—	—
4,4'-Dichlorobiphenyl	15	2500	—	—
2,2',5'-Trichlorobiphenyl	18	—	—	2000
2,2',6'-Trichlorobiphenyl	19	2500	—	—
2,4,4'-Trichlorobiphenyl	28	—	2000	2000
3,4,4'-Trichlorobiphenyl	37	2500	—	—
2,2',3,5'-Tetrachlorobiphenyl	44	—	—	2000
2,2',5,5'-Tetrachlorobiphenyl	52	—	2000	2000
2,2',6,6'-Tetrachlorobiphenyl	54	2500	—	—
2,3',4',5'-Tetrachlorobiphenyl	70	—	—	2000
3,3',4,4'-Tetrachlorobiphenyl	77	2500	—	—
2,2',4,5,5'-Pentachlorobiphenyl	101	—	2000	—
2,2',4,6,6'-Pentachlorobiphenyl	104	2500	—	—
2,3,3',4',6'-Pentachlorobiphenyl	110	—	—	2000
2,3',4,4',5'-Pentachlorobiphenyl	118	—	2000	2000
3,3',4,4',5'-Pentachlorobiphenyl	126	2500	—	—
2,2',3,4,5,5'-Hexachlorobiphenyl	138	—	2000	2000
2,2',3,4',5',6'-Hexachlorobiphenyl	149	—	—	2000
2,2',4,4',5,5'-Hexachlorobiphenyl	153	—	2000	2000
2,2',4,4',6,6'-Hexachlorobiphenyl	155	2500	—	—
3,3',4,4',5,5'-Hexachlorobiphenyl	169	2500	—	—
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	—	2000	2000
2,2',3,4',5,5',6'-Heptachlorobiphenyl	187	—	—	2000
2,2',3,4',5,6,6'-Heptachlorobiphenyl	188	2500	—	—
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	2500	—	—
2,2',3,3',4,4',5,5'-Octachlorobiphenyl	194	—	2000	2000
2,2',3,3',5,5',6,6'-Octachlorobiphenyl	202	2500	—	—
2,3,3',4,4',5,5',6'-Octachlorobiphenyl	205	2500	—	—
2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl	206	2500	2000	—
2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	208	2500	—	—
Decachlorobiphenyl	209	2500	2000	—

BP-MS-PL1, BP-MS-PL2, and BP-MS-PL3 were prepared to be used in the identification/confirmation of the PCB congeners in BP-MS. Although DB-5 data is provided with BP-MS, there can be changes in the elution order on "equivalent capillary columns".

Catalogue Number	Product (nonane solution)	Qty/Conc
確 BP-MS	Native PCB Solution/Mixture for MS Detection	1.2 ml
確 BP-MS2	Native PCB Solution/Mixture for MS Detection	1.2 ml
確 BP-MS-PL1	Native PCB Solution/Mixture for MS Detection	1.2 ml
確 BP-MS-PL2	Native PCB Solution/Mixture for MS Detection	1.2 ml
確 BP-MS-PL3	Native PCB Solution/Mixture for MS Detection	1.2 ml

PCB CONGENERS	IUPAC	BP-MS (µg/ml)	BP-MS2 (µg/ml)	BP-MS-PL1 (µg/ml)	BP-MS-PL2 (µg/ml)	BP-MS-PL3 (µg/ml)
2-Chlorobiphenyl	1	2.0	—	—	—	—
4-Chlorobiphenyl	3	2.0	—	—	—	—
2,2'-Dichlorobiphenyl	4	2.0	—	—	—	—
2,4'-Dichlorobiphenyl	8	2.0	—	—	—	—
2,6-Dichlorobiphenyl	10	2.0	—	—	—	—
*4,4'-Dichlorobiphenyl	15	2.0	—	—	—	—
*2,2',5-Trichlorobiphenyl	18	2.0	—	—	—	—
2,2',6-Trichlorobiphenyl	19	2.0	—	—	—	—
2,3,4'-Trichlorobiphenyl	22	2.0	—	—	—	—
2,4,4'-Trichlorobiphenyl	28	2.0	—	—	—	—
2',3,4-Trichlorobiphenyl	33	2.0	—	—	—	—
3,4,4'-Trichlorobiphenyl	37	2.0	—	—	—	—
2,2',3,3'-Tetrachlorobiphenyl	40	—	2.0	—	—	—
2,2',3,4-Tetrachlorobiphenyl	41	—	2.0	—	—	—
*2,2',3,5'-Tetrachlorobiphenyl	44	2.0	—	—	—	—
*2,2',4,5'-Tetrachlorobiphenyl	49	2.0	—	—	2.0	—
*2,2',5,5'-Tetrachlorobiphenyl	52	2.0	—	2.0	—	—
*2,2',6,6'-Tetrachlorobiphenyl	54	2.0	—	—	—	—
2,3,4,4'-Tetrachlorobiphenyl	60	—	2.0	—	—	—
2,3',4,4',-Tetrachlorobiphenyl	66	—	2.0	—	—	—
2,3',4',5-Tetrachlorobiphenyl	70	2.0	—	2.0	—	—
2,4,4',5-Tetrachlorobiphenyl	74	2.0	—	—	2.0	—
*3,3',4,4'-Tetrachlorobiphenyl	77	2.0	—	—	—	2.0
3,4,4',5-Tetrachlorobiphenyl	81	2.0	—	—	—	—
*2,2',3,4,5'-Pentachlorobiphenyl	87	2.0	—	2.0	—	—
2,2',3,4',5-Pentachlorobiphenyl	90	—	2.0	—	—	—
2,2',3,5',6-Pentachlorobiphenyl	95	2.0	—	—	2.0	—
2,2',4,4',5-Pentachlorobiphenyl	99	2.0	—	—	2.0	—
*2,2',4,5,5'-Pentachlorobiphenyl	101	2.0	—	2.0	—	—
2,2',4,6,6'-Pentachlorobiphenyl	104	2.0	—	—	—	—
*2,3,3',4,4'-Pentachlorobiphenyl	105	2.0	—	—	—	—
2,3,3',4',6-Pentachlorobiphenyl	110	2.0	—	2.0	—	—
*2,3,4,4',5-Pentachlorobiphenyl	114	2.0	—	—	—	—
*2,3',4,4',5-Pentachlorobiphenyl	118	2.0	—	—	—	—
2,3',4,4',6-Pentachlorobiphenyl	119	2.0	—	—	—	—
2',3,4,4',5-Pentachlorobiphenyl	123	2.0	—	—	—	—
3,3',4,4',5-Pentachlorobiphenyl	126	2.0	—	—	—	—
*2,2',3,3',4,4'-Hexachlorobiphenyl	128	2.0	—	—	—	2.0
2,2',3,3',4,5-Hexachlorobiphenyl	129	—	2.0	—	—	—
2,2',3,4,4',5-Hexachlorobiphenyl	137	—	2.0	—	—	—
*2,2',3,4,5,5'-Hexachlorobiphenyl	138	2.0	—	2.0	—	—
2,2',3,4,5,5'-Hexachlorobiphenyl	141	—	2.0	—	—	—
2,2',3,4',5,6-Hexachlorobiphenyl	149	2.0	—	—	2.0	—
*2,2',3,5,5',6-Hexachlorobiphenyl	151	2.0	—	—	2.0	—
2,2',4,4',5,5'-Hexachlorobiphenyl	153	2.0	—	2.0	—	—
2,2',4,4',6,6'-Hexachlorobiphenyl	155	2.0	—	2.0	—	—
*2,3,3',4,4',5-Hexachlorobiphenyl	156	2.0	—	—	—	—
2,3,3',4,4',5'-Hexachlorobiphenyl	157	2.0	—	—	—	—
2,3,3',4,4',6-Hexachlorobiphenyl	158	2.0	—	—	2.0	—
2,3',4,4',5,5'-Hexachlorobiphenyl	167	2.0	—	—	—	—
2,3',4,4',5,6-Hexachlorobiphenyl	168	2.0	—	—	2.0	—
3,3',4,4',5,5'-Hexachlorobiphenyl	169	2.0	—	—	—	—
*2,2',3,3',4,4',5-Heptachlorobiphenyl	170	2.0	—	—	—	—
*2,2',3,3',4,4',6-Heptachlorobiphenyl	171	2.0	—	—	2.0	—
2,2',3,3',4',5,6-Heptachlorobiphenyl	177	2.0	—	2.0	—	—
2,2',3,3',5,5',6-Heptachlorobiphenyl	178	2.0	—	—	—	2.0
*2,2',3,4,4',5,5'-Heptachlorobiphenyl	180	2.0	—	2.0	—	—
*2,2',3,4,4',5',6-Heptachlorobiphenyl	183	2.0	—	—	—	—
*2,2',3,4',5,5',6-Heptachlorobiphenyl	187	2.0	—	—	—	—
2,2',3,4',5,6,6'-Heptachlorobiphenyl	188	2.0	—	2.0	—	—
*2,3,3',4,4',5,5'-Heptachlorobiphenyl	189	2.0	—	—	—	—
*2,3,3',4,4',5,6-Heptachlorobiphenyl	191	2.0	—	—	—	—
2,3,3',4',5,5',6-Heptachlorobiphenyl	193	—	2.0	—	—	—
*2,2',3,3',4,4',5,5'-Octachlorobiphenyl	194	2.0	—	—	—	—
*2,2',3,3',4,5,5',6'-Octachlorobiphenyl	199	2.0	—	—	—	—
*2,2',3,3',4,5',6,6'-Octachlorobiphenyl	201	2.0	—	2.0	—	—
*2,2',3,3',5,5',6,6'-Octachlorobiphenyl	202	2.0	—	—	—	2.0
2,2',3,4,4',5,5',6-Octachlorobiphenyl	203	—	2.0	—	—	—
*2,3,3',4,4',5,5',6-Octachlorobiphenyl	205	2.0	—	—	—	—
*2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	206	2.0	—	—	—	—
*2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	208	2.0	—	—	—	—
*Decachlorobiphenyl	209	2.0	—	—	—	—

Congeners marked with an asterisk(*) are concentration-certified by direct comparison to the NRCC CLB-1 solutions.



ADDITIONAL PRODUCTS

PAH Calibration Sets

and Native and Mass-Labelled Support Solutions

Chlorinated Biphenyls(HO-PCBs)

Native and Mass-Labelled Individuals;

Native and Mass-Labelled Solution/Mixtures

Methoxy Chlorobiphenyls(MeO-PCBs)

Native and Mass-Labelled Individuals;

Native and Mass-Labelled Solution/Mixtures

Chlorobenzenes

Mass-Labelled Individuals;

Native and Mass-Labelled Solution/Mixture

Chlorophenols

Mass-Labelled Individuals;

Native and Mass-Labelled Solution/Mixture

Chlorinated Naphtalenes

Native Individuals; Native Solution/Mixtures



PAH-CVS-A

Catalogue Number	Product (isooctane solution)	Qty/Conc
PAH-CVS-A	PAH-CVS-A Calibration Solutions CS1-CS5	1 Kit (5 ampoules)
PAH-A-CS1	CS1	1.0 ml
PAH-A-CS2	CS2	1.0 ml
PAH-A-CS3	CS3	1.0 ml
PAH-A-CS4	CS4	1.0 ml
PAH-A-CS5	CS5	1.0 ml

	PAH-A- CS1 (ng/ml)	PAH-A- CS2 (ng/ml)	PAH-A- CS3 (ng/ml)	PAH-A- CS4 (ng/ml)	PAH-A- CS5 (ng/ml)
Native PAHs					
Naphthalene	2.0	10	40	200	800
Acenaphthylene	2.0	10	40	200	800
Acenaphthene	2.0	10	40	200	800
Fluorene	2.0	10	40	200	800
Phenanthrene	2.0	10	40	200	800
Anthracene	2.0	10	40	200	800
Fluoranthene	2.0	10	40	200	800
Pyrene	2.0	10	40	200	800
Cyclopenta[<i>c,d</i>]pyrene	2.0	10	40	200	800
Benz[<i>a</i>]anthracene	2.0	10	40	200	800
Chrysene	2.0	10	40	200	800
5-Methylchrysene	2.0	10	40	200	800
Benzo[<i>b</i>]fluoranthene	2.0	10	40	200	800
Benzo[<i>k</i>]fluoranthene	2.0	10	40	200	800
Benzo[<i>j</i>]fluoranthene	2.0	10	40	200	800
Benzo[<i>a</i>]pyrene	2.0	10	40	200	800
Indeno[<i>1,2,3-c,d</i>]pyrene	2.0	10	40	200	800
Benzo[<i>g,h,i</i>]perylene	2.0	10	40	200	800
Dibenz[<i>a,h</i>]anthracene	2.0	10	40	200	800
Dibenzo[<i>a,l</i>]pyrene	2.0	10	40	200	800
Dibenzo[<i>a,e</i>]pyrene	2.0	10	40	200	800
Dibenzo[<i>a,i</i>]pyrene	2.0	10	40	200	800
Dibenzo[<i>a,h</i>]pyrene	2.0	10	40	200	800
Deuterated PAHs					
Naphthalene-d ₈	100	100	100	100	100
Acenaphthene-d ₁₀	100	100	100	100	100
Fluorene-d ₁₀	100	100	100	100	100
Phenanthrene-d ₁₀	100	100	100	100	100
Anthracene-d ₁₀	100	100	100	100	100
Fluoranthene-d ₁₀	100	100	100	100	100
Pyrene-d ₁₀	100	100	100	100	100
Benzo[<i>a</i>]anthracene-d ₁₂	100	100	100	100	100
Chrysene-d ₁₂	100	100	100	100	100
Benzo[<i>b</i>]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[<i>k</i>]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[<i>a</i>]pyrene-d ₁₂	100	100	100	100	100
Indeno[<i>1,2,3-c,d</i>]pyrene-d ₁₂	100	100	100	100	100
Benzo[<i>g,h,i</i>]perylene-d ₁₂	100	100	100	100	100
Dibenz[<i>a,h</i>]anthracene-d ₁₄	100	100	100	100	100
Dibenzo[<i>a,i</i>]pyrene-d ₁₄	100	100	100	100	100
Deuterated PAH Internal Standards					
Acenaphthylene-d ₈	100	100	100	100	100
p-Terphenyl-d ₁₄	100	100	100	100	100
Benzo[<i>e</i>]pyrene-d ₁₂	100	100	100	100	100

SUPPORT SOLUTION FOR PAH-CVS-A

Catalogue Number	Product (isooctane solution)	Qty/Conc
PAH-LCS-A	PAH Labelled Compound Solution	1.2 ml
PAH-ISS-A	PAH Internal Standard Spiking Solution	1.2 ml
PAH-STK-A	PAH Native Stock Solution	1.2 ml

	PAH-LCS-A (ng/ml)	PAH-ISS-A (ng/ml)	PAH-STK-A (ng/ml)
Native PAHs			
Naphthalene	—	—	4000
Acenaphthylene	—	—	4000
Acenaphthene	—	—	4000
Fluorene	—	—	4000
Phenanthrene	—	—	4000
Anthracene	—	—	4000
Fluoranthene	—	—	4000
Pyrene	—	—	4000
Cyclopenta[<i>c,d</i>]pyrene	—	—	4000
Benz[<i>a</i>]anthracene	—	—	4000
Chrysene	—	—	4000
5-Methylchrysene	—	—	4000
Benzo[<i>b</i>]fluoranthene	—	—	4000
Benzo[<i>k</i>]fluoranthene	—	—	4000
Benzo[<i>j</i>]fluoranthene	—	—	4000
Benzo[<i>a</i>]pyrene	—	—	4000
Indeno[1,2,3- <i>c,d</i>]pyrene	—	—	4000
Benzo[<i>g,h,i</i>]perylene	—	—	4000
Dibenz[<i>a,h</i>]anthracene	—	—	4000
Dibenzo[<i>a,l</i>]pyrene	—	—	4000
Dibenzo[<i>a,e</i>]pyrene	—	—	4000
Dibenzo[<i>a,i</i>]pyrene	—	—	4000
Dibenzo[<i>a,h</i>]pyrene	—	—	4000
Deuterated PAHs			
Naphthalene-d ₈	2000	—	—
Acenaphthene-d ₁₀	2000	—	—
Fluorene-d ₁₀	2000	—	—
Phenanthrene-d ₁₀	2000	—	—
Anthracene-d ₁₀	2000	—	—
Fluoranthene-d ₁₀	2000	—	—
Pyrene-d ₁₀	2000	—	—
Benz[<i>a</i>]anthracene-d ₁₂	2000	—	—
Chrysene-d ₁₂	2000	—	—
Benzo[<i>b</i>]fluoranthene-d ₁₂	2000	—	—
Benzo[<i>k</i>]fluoranthene-d ₁₂	2000	—	—
Benzo[<i>a</i>]pyrene-d ₁₂	2000	—	—
Indeno[1,2,3- <i>c,d</i>]pyrene-d ₁₂	2000	—	—
Benzo[<i>g,h,i</i>]perylene-d ₁₂	2000	—	—
Dibenz[<i>a,h</i>]anthracene-d ₁₄	2000	—	—
Dibenzo[<i>a,i</i>]pyrene-d ₁₄	2000	—	—
Deuterated PAH Internal Standards			
Acenaphthylene-d ₈	—	2000	—
p-Terphenyl-d ₁₄	—	2000	—
Benzo[<i>e</i>]pyrene-d ₁₂	—	2000	—

PAH-CVS-B

Catalogue Number	Product (isooctane/toluene solution)	Qty/Conc
PAH-CVS-B	PAH-CVS-B Calibration Solutions CS1-CS5	1 Kit (5 ampoules)
PAH-B-CS1	CS1	1.0 ml
PAH-B-CS2	CS2	1.0 ml
PAH-B-CS3	CS3	1.0 ml
PAH-B-CS4	CS4	1.0 ml
PAH-B-CS5	CS5	1.0 ml

	PAH-B- CS1 (ng/ml)	PAH-B- CS2 (ng/ml)	PAH-B- CS3 (ng/ml)	PAH-B- CS4 (ng/ml)	PAH-B- CS5 (ng/ml)
Native PAHs					
Naphthalene	2	10	50	250	1000
2-Methylnaphthalene	2	10	50	250	1000
Acenaphthylene	2	10	50	250	1000
Acenaphthene	2	10	50	250	1000
Fluorene	2	10	50	250	1000
Phenanthrene	2	10	50	250	1000
Anthracene	2	10	50	250	1000
Fluoranthene	2	10	50	250	1000
Pyrene	2	10	50	250	1000
Benzo[c]fluorene	2	10	50	250	1000
Cyclopenta[c,d]pyrene	2	10	50	250	1000
Benz[a]anthracene	2	10	50	250	1000
Chrysene	2	10	50	250	1000
5-Methylchrysene	2	10	50	250	1000
Benzo[b]fluoranthene	2	10	50	250	1000
Benzo[k]fluoranthene	2	10	50	250	1000
Benzo[j]fluoranthene	2	10	50	250	1000
Benzo[e]pyrene	2	10	50	250	1000
Benzo[a]pyrene	2	10	50	250	1000
Perylene	2	10	50	250	1000
Indeno[1,2,3-c,d]pyrene	2	10	50	250	1000
Benzo[g,h,i]perylene	2	10	50	250	1000
Dibenz[a,h]anthracene	2	10	50	250	1000
Dibenzo[a,l]pyrene	2	10	50	250	1000
Dibenzo[a,e]pyrene	2	10	50	250	1000
Dibenzo[a,i]pyrene	2	10	50	250	1000
Dibenzo[a,h]pyrene	2	10	50	250	1000
PAH-LCS-B (Extraction Standards)					
Naphthalene-d ₈	100	100	100	100	100
2-Methylnaphthalene-d ₁₀	100	100	100	100	100
Acenaphthylene-d ₈	100	100	100	100	100
Phenanthrene-d ₁₀	100	100	100	100	100
Anthracene-d ₁₀	100	100	100	100	100
Fluoranthene-d ₁₀	100	100	100	100	100
Benz[a]anthracene-d ₁₂	100	100	100	100	100
Chrysene-d ₁₂	100	100	100	100	100
Benzo[b]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[k]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[a]pyrene-d ₁₂	100	100	100	100	100
Perylene-d ₁₂	100	100	100	100	100
Indeno[1,2,3-c,d]pyrene-d ₁₂	100	100	100	100	100
Benzo[g,h,i]perylene-d ₁₂	100	100	100	100	100
Dibenz[a,h]anthracene-d ₁₄	100	100	100	100	100
Dibenzo[a,i]pyrene-d ₁₄	100	100	100	100	100
PAH-ISS-B (Recovery Standards)					
Acenaphthene-d ₁₀	100	100	100	100	100
Pyrene-d ₁₀	100	100	100	100	100
Benzo[e]pyrene-d ₁₂	100	100	100	100	100
PAH-SS-B (Sampling Standards)					
Fluorene-d ₁₀	100	100	100	100	100
p-Terphenyl-d ₁₄	100	100	100	100	100

SUPPORT SOLUTION FOR PAH-CVS-B

Catalogue Number	Product (isooctane/toluene/nonane solution)			Qty/Conc
PAH-LCS-B	PAH Labelled Compound Solution			1.2ml
PAH-ISS-B	PAH Internal Standard Spiking Solution			1.2ml
PAH-SS-B	PAH Sampling Standard Solution			1.2ml
PAH-STK-B	PAH Native Stock Solution			1.2ml
	PAH-LCS-B	PAH-ISS-B	PAH-SS-B	PAH-STK-B
	(ng/ml)	(ng/ml)	(ng/ml)	(ng/ml)
Native PAHs				
Naphthalene	—	—	—	2500
2-Methylnaphthalene	—	—	—	2500
Acenaphthylene	—	—	—	2500
Acenaphthene	—	—	—	2500
Fluorene	—	—	—	2500
Phenanthrene	—	—	—	2500
Anthracene	—	—	—	2500
Fluoranthene	—	—	—	2500
Pyrene	—	—	—	2500
Benzo[c]fluorene	—	—	—	2500
Cyclopenta[c,d]pyrene	—	—	—	2500
Benz[a]anthracene	—	—	—	2500
Chrysene	—	—	—	2500
5-Methylchrysene	—	—	—	2500
Benzo[b]fluoranthene	—	—	—	2500
Benzo[k]fluoranthene	—	—	—	2500
Benzo[j]fluoranthene	—	—	—	2500
Benzo[e]pyrene	—	—	—	2500
Benzo[a]pyrene	—	—	—	2500
Perylene	—	—	—	2500
Indeno[1,2,3-c,d]pyrene	—	—	—	2500
Benzo[g,h,i]perylene	—	—	—	2500
Dibenz[a,h]anthracene	—	—	—	2500
Dibenzo[a,l]pyrene	—	—	—	2500
Dibenzo[a,e]pyrene	—	—	—	2500
Dibenzo[a,i]pyrene	—	—	—	2500
Dibenzo[a,h]pyrene	—	—	—	2500
Deuterated PAHs				
Naphthalene-d ₈	5000	—	—	—
2-Methylnaphthalene-d ₁₀	5000	—	—	—
Acenaphthylene-d ₈	5000	—	—	—
Phenanthrene-d ₁₀	5000	—	—	—
Anthracene-d ₁₀	5000	—	—	—
Fluoranthene-d ₁₀	5000	—	—	—
Benz[a]anthracene-d ₁₂	5000	—	—	—
Chrysene-d ₁₂	5000	—	—	—
Benzo[b]fluoranthene-d ₁₂	5000	—	—	—
Benzo[k]fluoranthene-d ₁₂	5000	—	—	—
Benzo[a]pyrene-d ₁₂	5000	—	—	—
Perylene-d ₁₂	5000	—	—	—
Indeno[1,2,3-c,d]pyrene-d ₁₂	5000	—	—	—
Benzo[g,h,i]perylene-d ₁₂	5000	—	—	—
Dibenz[a,h]anthracene-d ₁₄	5000	—	—	—
Dibenzo[a,i]pyrene-d ₁₄	5000	—	—	—
Deuterated PAH Internal Standards				
Acenaphthene-d ₁₀	—	5000	—	—
Pyrene-d ₁₀	—	5000	—	—
Benzo[e]pyrene-d ₁₂	—	5000	—	—
Deuterated PAH Sampling Standards				
Fluorene-d ₁₀	—	—	5000	—
p-Terphenyl-d ₁₄	—	—	5000	—

METHOD 429: HRGC/LRMS CALIBRATION SOLUTIONS FOR PAHs

Catalogue Number	Product (isooctane solution)	Qty/Conc
L429-CVS	L429-CVS Calibration Solutions CS1-CS5	1 Kit (5 ampoules)
L429-CS1	CS1	1.0 ml
L429-CS2	CS2	1.0 ml
L429-CS3	CS3	1.0 ml
L429-CS4	CS4	1.0 ml
L429-CS5	CS5	1.0 ml

	L429-CS1 (ng/μl)	L429-CS2 (ng/μl)	L429-CS3 (ng/μl)	L429-CS4 (ng/μl)	L429-CS5 (ng/μl)
Native PAHs					
Naphthalene	0.25	0.5	1.0	2.5	5.0
2-Methylnaphthalene	0.25	0.5	1.0	2.5	5.0
Acenaphthene	0.25	0.5	1.0	2.5	5.0
Acenaphthylene	0.25	0.5	1.0	2.5	5.0
Fluorene	0.25	0.5	1.0	2.5	5.0
Phenanthrene	0.25	0.5	1.0	2.5	5.0
Anthracene	0.25	0.5	1.0	2.5	5.0
Fluoranthene	0.25	0.5	1.0	2.5	5.0
Pyrene	0.25	0.5	1.0	2.5	5.0
Benzo[a]anthracene	0.25	0.5	1.0	2.5	5.0
Chrysene	0.25	0.5	1.0	2.5	5.0
Benzo[b]fluoranthene	0.25	0.5	1.0	2.5	5.0
Benzo[k]fluoranthene	0.25	0.5	1.0	2.5	5.0
Benzo[e]pyrene	0.25	0.5	1.0	2.5	5.0
Benzo[a]pyrene	0.25	0.5	1.0	2.5	5.0
Perylene	0.25	0.5	1.0	2.5	5.0
Indeno[1,2,3-c,d]pyrene	0.25	0.5	1.0	2.5	5.0
Dibenz[a,h]anthracene	0.25	0.5	1.0	2.5	5.0
Benzo[g,h,i]perylene	0.25	0.5	1.0	2.5	5.0
Surrogate Standards					
Fluorene-d ₁₀	1.0	1.0	1.0	1.0	1.0
p-Terphenyl-d ₁₄	1.0	1.0	1.0	1.0	1.0
Internal Standards					
Naphthalene-d ₈	1.0	1.0	1.0	1.0	1.0
2-Methylnaphthalene-d ₁₀	1.0	1.0	1.0	1.0	1.0
Acenaphthylene-d ₈	1.0	1.0	1.0	1.0	1.0
Phenanthrene-d ₁₀	1.0	1.0	1.0	1.0	1.0
Fluoranthene-d ₁₀	1.0	1.0	1.0	1.0	1.0
Benzo[a]anthracene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Chrysene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Benzo[b]fluoranthene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Benzo[k]fluoranthene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Benzo[a]pyrene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Perylene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Indeno[1,2,3-c,d]pyrene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Dibenz[a,h]anthracene-d ₁₄	1.0	1.0	1.0	1.0	1.0
Benzo[g,h,i]perylene-d ₁₂	1.0	1.0	1.0	1.0	1.0
Alternate Standard					
Anthracene-d ₁₀	1.0	1.0	1.0	1.0	1.0
Recovery Standards					
Acenaphthene-d ₁₀	1.0	1.0	1.0	1.0	1.0
Pyrene-d ₁₀	1.0	1.0	1.0	1.0	1.0
Benzo[e]pyrene-d ₁₂	1.0	1.0	1.0	1.0	1.0

METHOD 429: HRGC/LRMS SUPPORT SOLUTIONS FOR PAHs

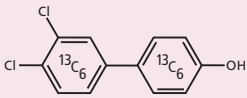
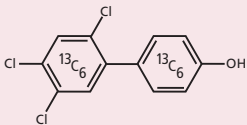
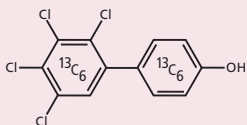
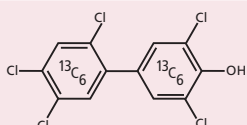
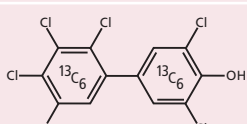
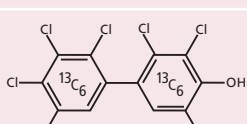
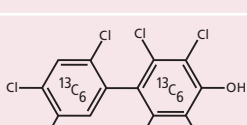
Catalogue Number	Product (isooctane solution)					Qty/Conc
L429-SS	Method 429 Surrogate Standard Stock Solution					1.2 ml
L429-IS	Method 429 Internal Standard Stock Solution					1.2 ml
L429-AS	Method 429 Alternate Standard Stock Solution					1.2 ml
L429-RS	Method 429 Recovery Standard Stock Solution					1.2 ml
L429-PAR	Method 429 Native PAH Stock Solution					1.2 ml

	L429-SS (µg/ml)	L429-IS (µg/ml)	L429-AS (µg/ml)	L429-RS (µg/ml)	L429-PAR (µg/ml)
Native PAHs					
Naphthalene	—	—	—	—	2.0
2-Methylnaphthalene	—	—	—	—	2.0
Acenaphthene	—	—	—	—	2.0
Acenaphthylene	—	—	—	—	2.0
Fluorene	—	—	—	—	2.0
Phenanthrene	—	—	—	—	2.0
Anthracene	—	—	—	—	2.0
Fluoranthene	—	—	—	—	2.0
Pyrene	—	—	—	—	2.0
Benz[a]anthracene	—	—	—	—	2.0
Chrysene	—	—	—	—	2.0
Benzo[b]fluoranthene	—	—	—	—	2.0
Benzo[k]fluoranthene	—	—	—	—	2.0
Benzo[e]pyrene	—	—	—	—	2.0
Benzo[a]pyrene	—	—	—	—	2.0
Perylene	—	—	—	—	2.0
Indeno[1,2,3-c,d]pyrene	—	—	—	—	2.0
Dibenz[a,h]anthracene	—	—	—	—	2.0
Benzo[g,h,i]perylene	—	—	—	—	2.0
Surrogate Standards					
Fluorene-d ₁₀	100	—	—	—	—
p-Terphenyl-d ₁₄	100	—	—	—	—
Internal Standards					
Naphthalene-d ₈	—	100	—	—	—
2-Methylnaphthalene-d ₁₀	—	100	—	—	—
Acenaphthylene-d ₈	—	100	—	—	—
Phenanthrene-d ₁₀	—	100	—	—	—
Fluoranthene-d ₁₀	—	100	—	—	—
Benz[a]anthracene-d ₁₂	—	100	—	—	—
Chrysene-d ₁₂	—	100	—	—	—
Benzo[b]fluoranthene-d ₁₂	—	100	—	—	—
Benzo[k]fluoranthene-d ₁₂	—	100	—	—	—
Benzo[a]pyrene-d ₁₂	—	100	—	—	—
Perylene-d ₁₂	—	100	—	—	—
Indeno[1,2,3-c,d]pyrene-d ₁₂	—	100	—	—	—
Dibenz[a,h]anthracene-d ₁₄	—	100	—	—	—
Benzo[g,h,i]perylene-d ₁₂	—	100	—	—	—
Alternate Standard					
Anthracene-d ₁₀	—	—	100	—	—
Recovery Standards					
Acenaphthene-d ₁₀	—	—	—	100	—
Pyrene-d ₁₀	—	—	—	100	—
Benzo[e]pyrene-d ₁₂	—	—	—	100	—

NATIVE CHLORINATED BIPHENYLOLS (HO-PCBs)

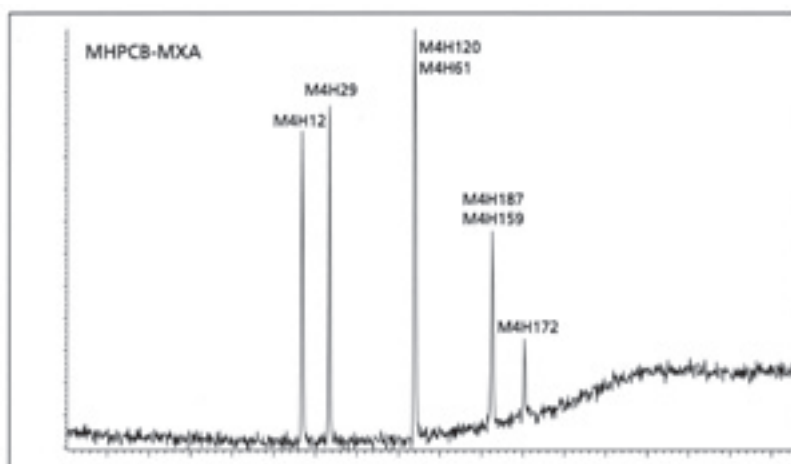
Catalogue Number	Product (nonane solution)	Qty/Conc
4H104	2,2',4',6,6'-Pentachloro-4-biphenylol	1.2 ml 50 µg/ml
4H107	2,3,3',4',5-Pentachloro-4-biphenylol	1.2 ml 50 µg/ml
4H108	2',3,3',4',5-Pentachloro-4-biphenylol (95%)	1.2 ml 47.5 µg/ml
3H118	2,3',4,4',5-Pentachloro-3-biphenylol	1.2 ml 50 µg/ml
4H130	2,2',3,3',4',5-Hexachloro-4-biphenylol	1.2 ml 50 µg/ml
3H138	2,2',3',4,4',5-Hexachloro-3-biphenylol	1.2 ml 50 µg/ml
4H146	2,2',3,4',5,5'-Hexachloro-4-biphenylol	1.2 ml 50 µg/ml
3H153	2,2',4,4',5,5'-Hexachloro-3-biphenylol	1.2 ml 50 µg/ml
4H172	2,2',3,3',4',5,5'-Heptachloro-4-biphenylol	1.2 ml 50 µg/ml
3H180	2,2',3,4,4',5,5'-Heptachloro-3-biphenylol	1.2 ml 50 µg/ml
4H187	2,2',3,4',5,5',6-Heptachloro-4-biphenylol	1.2 ml 50 µg/ml

MASS-LABELLED CHLORINATED BIPHENYLOLS

Catalogue Number	Product
M4H12	 <p>3',4'-Dichloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>
M4H29	 <p>2',4',5'-Trichloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>
M4H61	 <p>2',3',4',5'-Tetrachloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>
M4H120	 <p>2',3,4',5,5'-Pentachloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>
M4H159	 <p>2',3,3',4',5,5'-Hexachloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>
M4H172	 <p>2,2',3,3',4',5,5'-Heptachloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>
M4H187	 <p>2,2',3,4',5,5',6-Heptachloro-4-[¹³C₁₂]biphenylol 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene; Isotopic Purity 99% or greater</p>

MASS-LABELLED CHLORINATED BIPHENYLS: SOLUTION/MIXTURE

Catalogue Number	Product (toluene solution)	Qty/Conc
MHPCB-MXA	Mass-Labelled Chlorinated Biphenylol Solution/Mixture	1.2 ml
3',4'-Dichloro-4-[¹³ C ₁₂]biphenylol	M4H12	5 µg/ml
2',4',5'-Trichloro-4-[¹³ C ₁₂]biphenylol	M4H29	5 µg/ml
2',3',4',5'-Tetrachloro-4-[¹³ C ₁₂]biphenylol	M4H61	5 µg/ml
2',3,4',5,5'-Pentachloro-4-[¹³ C ₁₂]biphenylol	M4H120	5 µg/ml
2',3,3',4',5,5'-Hexachloro-4-[¹³ C ₁₂]biphenylol	M4H159	5 µg/ml
2,2',3,3',4',5,5'-Heptachloro-4-[¹³ C ₁₂]biphenylol	M4H172	5 µg/ml
2,2',3,4',5,5',6-Heptachloro-4-[¹³ C ₁₂]biphenylol	M4H187	5 µg/ml



MHPCB-MXA; HRGC/LRMS TIC Chromatogram

NATIVE METHOXY-CHLOROBIPHENYLS (MeO-PCBs)

Catalogue Number	Product (nonane solution)	Qty/Conc
4PM79	3,3',4',5-Tetrachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4PM97	2,2',3,4',5'-Pentachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4PM101	2,2',4,5,5'-Pentachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4M107	2,3,3',4',5-Pentachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4PM108	2,3,3',4,5'-Pentachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
3M118	2,3',4,4',5-Pentachloro-3-methoxybiphenyl	1.2 ml 50 µg/ml
4PM120	2,3',4,5,5'-Pentachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4PM127	3,3',4,5,5'-Pentachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4PM130	2,2',3,3',4',5-Hexachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4M134	2,2',3,3',5,6-Hexachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
3PM138	2,2',3',4,4',5-Hexachloro-3-methoxybiphenyl	1.2 ml 50 µg/ml
4M146	2,2',3,4',5,5'-Hexachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
33PDM155	2,2',4,4',6,6'-Hexachloro-3,3'-dimethoxybiphenyl	1.2 ml 50 µg/ml
4PM159	2,3,3',4,5,5'-Hexachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4M162	2,3,3',4',5,5'-Hexachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4M163	2,3,3',4',5,6-Hexachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4PM172	2,2',3,3',4,5,5'-Heptachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4M177	2,2',3,3',4',5,6-Heptachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4M178	2,2',3,3',5,5',6-Heptachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
3PM180	2,2',3,4,4',5,5'-Heptachloro-3'-methoxybiphenyl	1.2 ml 50 µg/ml
3PM182	2,2',3,4,4',5,6'-Heptachloro-3'-methoxybiphenyl	1.2 ml 50 µg/ml
3PM183	2,2',3',4,4',5,6'-Heptachloro-3-methoxybiphenyl	1.2 ml 50 µg/ml
3PM184	2,2',3,4,4',6,6'-Heptachloro-3'-methoxybiphenyl	1.2 ml 50 µg/ml
4M187	2,2',3,4',5,5',6-Heptachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4M193	2,3,3',4',5,5',6-Heptachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4PM198	2,2',3,3',4,5,5',6-Octachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4PM199	2,2',3,3',4',5,5',6-Octachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4PM200	2,2',3,3',4,5,6,6'-Octachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml
4PM201	2,2',3,3',4',5,6,6'-Octachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
4M202	2,2',3,3',5,5',6,6'-Octachloro-4-methoxybiphenyl	1.2 ml 50 µg/ml
44PDM202	2,2',3,3',5,5',6,6'-Octachloro-4,4'-dimethoxybiphenyl	1.2 ml 50 µg/ml
3PM203	2,2',3,4,4',5,5',6-Octachloro-3'-methoxybiphenyl	1.2 ml 50 µg/ml
4PM208	2,2',3,3',4,5,5',6,6'-Nonachloro-4'-methoxybiphenyl	1.2 ml 50 µg/ml

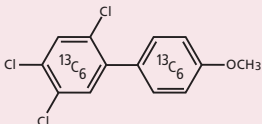
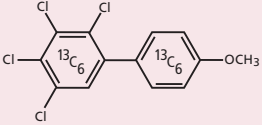
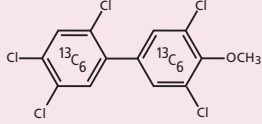
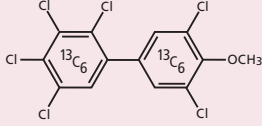
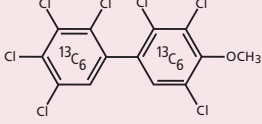
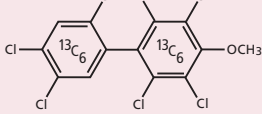
NATIVE METHOXY-CHLOROBIPHENYLS: SOLUTION/MIXTURES

Catalogue Number	Product (nonane solution)	Qty/Conc
MPCB-MXA	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,3,4,5-Tetrachloro-4'-methoxybiphenyl	4PM61	5 µg/ml
2,3',4,5,5'-Pentachloro-4'-methoxybiphenyl	4PM120	5 µg/ml
2,2',4,4',6,6'-Hexachloro-3,3'-dimethoxybiphenyl	33PDM155	5 µg/ml
2,2',3,4,4',6,6'-Heptachloro-3'-methoxybiphenyl	3PM184	5 µg/ml
2,2',3,3',5,5',6,6'-Octachloro-4-methoxybiphenyl	4M202	5 µg/ml
MPCB-MXB	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
3,3',4',5-Tetrachloro-4-methoxybiphenyl	4PM79	5 µg/ml
2,2'4,5,5'-Pentachloro-4'-methoxybiphenyl	4PM101	5 µg/ml
2,2',3,3',5,6-Hexachloro-4-methoxybiphenyl	4M134	5 µg/ml
2,2',3,3',5,5',6-Heptachloro-4-methoxybiphenyl	4M178	5 µg/ml
2,2',3,3',4',5,6,6'-Octachloro-4-methoxybiphenyl	4PM201	5 µg/ml
MPCB-MXC	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,3,4,4',5-Pentachloro-2'-methoxybiphenyl	2PM114	5 µg/ml
2,2',3,4',5,5'-Hexachloro-4-methoxybiphenyl	4M146	5 µg/ml
2,2',3,4,4',5,6'-Heptachloro-3'-methoxybiphenyl	3PM182	5 µg/ml
2,2',3,4,4',5,5',6-Octachloro-3'-methoxybiphenyl	3PM203	5 µg/ml
2,2',3,3',4,5,5',6,6'-Nonachloro-4'-methoxybiphenyl	4PM208	5 µg/ml
MPCB-MXD	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,3',4,4',5-Pentachloro-3-methoxybiphenyl	3M118	5 µg/ml
2,2',3',4,4',5-Hexachloro-3-methoxybiphenyl	3PM138	5 µg/ml
2,2',3',4,4',5,6'-Heptachloro-3-methoxybiphenyl	3PM183	5 µg/ml
2,2',3,3',4,5,5',6-Octachloro-4'-methoxybiphenyl	4PM198	5 µg/ml
MPCB-MXE	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,3,3',4,5'-Pentachloro-4'-methoxybiphenyl	4PM108	5 µg/ml
2,2',3,3',4',5-Hexachloro-4-methoxybiphenyl	4PM130	5 µg/ml
2,2',3,4',5,5',6-Heptachloro-4-methoxybiphenyl	4M187	5 µg/ml
2,2',3,3',4',5,5',6-Octachloro-4-methoxybiphenyl	4PM199	5 µg/ml
MPCB-MXF	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,3,3',4',5-Pentachloro-4-methoxybiphenyl	4M107	5 µg/ml
2,3,3',4',5,6-Hexachloro-4-methoxybiphenyl	4M163	5 µg/ml
2,2',3,3',4',5,6-Heptachloro-4-methoxybiphenyl	4M177	5 µg/ml
2,2',3,3',4,5,6,6'-Octachloro-4'-methoxybiphenyl	4PM200	5 µg/ml

NATIVE METHOXY-CHLOROBIPHENYLS: SOLUTION/MIXTURES

Catalogue Number	Product (nonane solution)	Qty/Conc
MPCB-MXG	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,2',3,4',5'-Pentachloro-4-methoxybiphenyl	4PM97	5 µg/ml
2,3,3',4,5,5'-Hexachloro-4'-methoxybiphenyl	4PM159	5 µg/ml
2,2',3,4,4',5,5'-Heptachloro-3'-methoxybiphenyl	3PM180	5 µg/ml
2,2',3,3',5,5',6,6'-Octachloro-4,4'-dimethoxybiphenyl	44PDM202	5 µg/ml
MPCB-MXH	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
3,3',4,5,5'-Pentachloro-4'-methoxybiphenyl	4PM127	5 µg/ml
2,2',3,3',4,5,5'-Heptachloro-4'-methoxybiphenyl	4PM172	5 µg/ml
MPCB-MXI	Native Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,3,3',4',5,5'-Hexachloro-4-methoxybiphenyl	4M162	5 µg/ml
2,3,3',4',5,5',6-Heptachloro-4-methoxybiphenyl	4M193	5 µg/ml

MASS-LABELLED METHOXY-CHLOROBIPHENYLS

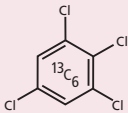
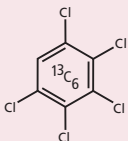
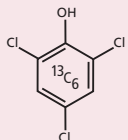
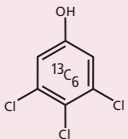
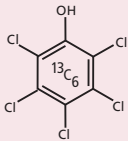
Catalogue Number	Product
M4M29	 <p>2,4,5-Trichloro-4'-methoxy[¹³C₁₂]biphenyl 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene</p>
M4M61	 <p>2,3,4,5-Tetrachloro-4'-methoxy[¹³C₁₂]biphenyl 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene</p>
M4M120	 <p>2,3',4,5,5'-Pentachloro-4'-methoxy[¹³C₁₂]biphenyl 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene</p>
M4M159	 <p>2,3,3',4,5,5'-Hexachloro-4'-methoxy[¹³C₁₂]biphenyl 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene</p>
M4M172	 <p>2,2',3,3',4,5,5'-Heptachloro-4'-methoxy[¹³C₁₂]biphenyl 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene</p>
M4M187	 <p>2,2',3,4',5,5',6-Heptachloro-4-methoxy[¹³C₁₂]biphenyl 1.2 ml; 50 µg/ml (±2.5 µg/ml); in toluene</p>

*Unless stated otherwise, Isotopic Purities of these compounds are 99% or greater.

MASS-LABELLED METHOXY-CHLOROBIPHENYLS: SOLUTION/MIXTURE

Catalogue Number	Product (toluene solution)	Qty/Conc
MMPCB-MXA	Mass-Labelled Chlorinated Methoxybiphenyl Solution/Mixture	1.2 ml
2,4,5-Trichloro-4'-methoxy[¹³ C ₁₂]biphenyl	M4M29	5 µg/ml
2,3,4,5-Tetrachloro-4'-methoxy[¹³ C ₁₂]biphenyl	M4M61	5 µg/ml
2,3',4,5,5'-Pentachloro-4'-methoxy[¹³ C ₁₂]biphenyl	M4M120	5 µg/ml
2,3,3',4,5,5'-Hexachloro-4'-methoxy[¹³ C ₁₂]biphenyl	M4M159	5 µg/ml
2,2',3,3',4,5,5'-Heptachloro-4'-methoxy[¹³ C ₁₂]biphenyl	M4M172	5 µg/ml
2,2',3,4',5,5',6-Heptachloro-4-methoxy[¹³ C ₁₂]biphenyl	M4M187	5 µg/ml

MASS-LABELLED CHLOROBENZENES & CHLOROPHENOLS INDIVIDUAL SOLUTIONS

Catalogue Number	Product
MBZ-1235	 1,2,3,5-Tetrachloro[¹³ C ₆]benzene 1.2 ml; 100 µg/ml (±5.0 µg/ml); in isooctane
確 MCBZ-12345	 1,2,3,4,5-Pentachloro[¹³ C ₆]benzene 1.2 ml; 100 µg/ml (±5.0 µg/ml); in isooctane
MCP-246	 2,4,6-Trichloro[¹³ C ₆]phenol 1.2 ml; 100 µg/ml (±5.0 µg/ml); in isooctane
MCP-345	 3,4,5-Trichloro[¹³ C ₆]phenol 1.2 ml; 100 µg/ml (±5.0 µg/ml); in isooctane
MCP-23456	 Pentachloro[¹³ C ₆]phenol 1.2 ml; 100 µg/ml (±5.0 µg/ml); in isooctane

確 第一種特定化学物質

NATIVE CHLOROBENZENES: SOLUTION/MIXTURE

Catalogue Number	Product (isooctane solution)	Qty/Conc
確 CBS	Native Chlorobenzene Solution/Mixture	1.2 ml
	Chlorobenzene	100 µg/ml
	1,2-Dichlorobenzene	100 µg/ml
	1,3-Dichlorobenzene	100 µg/ml
	1,4-Dichlorobenzene	100 µg/ml
	1,2,3-Trichlorobenzene	100 µg/ml
	1,2,4-Trichlorobenzene	100 µg/ml
	1,3,5-Trichlorobenzene	100 µg/ml
	1,2,3,4-Tetrachlorobenzene	100 µg/ml
	1,2,3,5-Tetrachlorobenzene	100 µg/ml
	1,2,4,5-Tetrachlorobenzene	100 µg/ml
	Pentachlorobenzene	100 µg/ml
	Hexachlorobenzene	100 µg/ml

MASS-LABELLED CHLOROBENZENES: SOLUTION/MIXTURE

Catalogue Number	Product (isooctane solution)	Qty/Conc
確 MCBS	Mass-Labelled Chlorobenzene Solution/Mixture	1.2 ml
	Chloro[¹³ C ₆]benzene	100 µg/ml
	1,4-Dichloro[¹³ C ₆]benzene	100 µg/ml
	1,2,3-Trichloro[¹³ C ₆]benzene	100 µg/ml
	1,2,3,4-Tetrachloro[¹³ C ₆]benzene	100 µg/ml
	Pentachloro[¹³ C ₆]benzene	100 µg/ml
	Hexachloro[¹³ C ₆]benzene	100 µg/ml

NATIVE CHLOROPHENOLS: SOLUTION/MIXTURE

Catalogue Number	Product (isooctane solution)	Qty/Conc
CPS	Native Chlorophenol Solution/Mixture	1.2 ml
	2-Chlorophenol	100 µg/ml
	3-Chlorophenol	100 µg/ml
	4-Chlorophenol	100 µg/ml
	2,3-Dichlorophenol	100 µg/ml
	2,4-Dichlorophenol	100 µg/ml
	2,5-Dichlorophenol	100 µg/ml
	2,6-Dichlorophenol	100 µg/ml
	3,4-Dichlorophenol	100 µg/ml
	3,5-Dichlorophenol	100 µg/ml
	2,3,4-Trichlorophenol	100 µg/ml
	2,3,5-Trichlorophenol	100 µg/ml
	2,3,6-Trichlorophenol	100 µg/ml
	2,4,5-Trichlorophenol	100 µg/ml
	2,4,6-Trichlorophenol	100 µg/ml
	3,4,5-Trichlorophenol	100 µg/ml
	2,3,4,5-Tetrachlorophenol	100 µg/ml
	2,3,4,6-Tetrachlorophenol	100 µg/ml
	2,3,5,6-Tetrachlorophenol	100 µg/ml
	Pentachlorophenol	100 µg/ml

MASS-LABELLED CHLOROPHENOLS: SOLUTION/MIXTURE

Catalogue Number	Product (isooctane solution)	Qty/Conc
MCPS	Mass-Labelled Chlorophenol Solution/Mixture	1.2 ml
	4-Chloro[¹³ C ₆]phenol	100 µg/ml
	2,4-Dichloro[¹³ C ₆]phenol	100 µg/ml
	2,4,5-Trichloro[¹³ C ₆]phenol	100 µg/ml
	2,3,4,5-Tetrachloro[¹³ C ₆]phenol	100 µg/ml
	Pentachloro[¹³ C ₆]phenol	100 µg/ml

NATIVE CHLORINATED NAPHTHALENES(PCNs)

Catalogue Number	Product (nonane solution)	Qty/Conc
PN-2S	2-Chloronaphthalene	1.2 ml 50 µg/ml
PN-6S	1,5-Dichloronaphthalene	1.2 ml 50 µg/ml
PN-12S	2,7-Dichloronaphthalene	1.2 ml 50 µg/ml
確 PN-13S	1,2,3-Trichloronaphthalene	1.2 ml 50 µg/ml
確 PN-27S	1,2,3,4-Tetrachloronaphthalene	1.2 ml 50 µg/ml
確 PN-28S	1,2,3,5-Tetrachloronaphthalene	1.2 ml 50 µg/ml
確 PN-31S	1,2,3,8-Tetrachloronaphthalene	1.2 ml 50 µg/ml
確 PN-46S	1,4,5,8-Tetrachloronaphthalene	1.2 ml 50 µg/ml
確 PN-48S	2,3,6,7-Tetrachloronaphthalene	1.2 ml 50 µg/ml
確 PN-50S	1,2,3,4,6-Pentachloronaphthalene	1.2 ml 50 µg/ml
確 PN-52S	1,2,3,5,7-Pentachloronaphthalene	1.2 ml 50 µg/ml
確 PN-53S	1,2,3,5,8-Pentachloronaphthalene	1.2 ml 50 µg/ml
確 PN-66S	1,2,3,4,6,7-Hexachloronaphthalene	1.2 ml 50 µg/ml
確 PN-69S	1,2,3,5,7,8-Hexachloronaphthalene	1.2 ml 50 µg/ml
確 PN-72S	1,2,4,5,7,8-Hexachloronaphthalene	1.2 ml 50 µg/ml
確 PN-73S	1,2,3,4,5,6,7-Heptachloronaphthalene	1.2 ml 50 µg/ml
確 PN-75S	Octachloronaphthalene	1.2 ml 50 µg/ml

NATIVE CHLORINATED NAPHTHALENES(PCNs): SOLUTION/MIXTURES

Catalogue Number	Product (nonane solution)	Qty/Conc
確 PCN-MXA	Native PCN Solution/Mixture	1.2 ml
	IUPAC	
	2-Chloronaphthalene	5 µg/ml
	1,5-Dichloronaphthalene	5 µg/ml
	1,2,3-Trichloronaphthalene	5 µg/ml
	1,2,3,5-Tetrachloronaphthalene	5 µg/ml
	1,2,3,5,7-Pentachloronaphthalene	5 µg/ml
	1,2,3,4,6,7-Hexachloronaphthalene	5 µg/ml
	1,2,3,4,5,6,7-Heptachloronaphthalene	5 µg/ml
	Octachloronaphthalene	5 µg/ml
確 PCN-MXC	Native PCN Solution/Mixture	1.2 ml
	IUPAC	
	1,2,3,4-Tetrachloronaphthalene	5 µg/ml
	1,2,5,6-Tetrachloronaphthalene	4.75 µg/ml
	1,4,5,8-Tetrachloronaphthalene	5 µg/ml
	2,3,6,7-Tetrachloronaphthalene	5 µg/ml
	1,2,3,4,6-Pentachloronaphthalene	5 µg/ml
	1,2,3,5,8-Pentachloronaphthalene	5 µg/ml
	1,2,3,5,7,8-Hexachloronaphthalene	5 µg/ml
	1,2,4,5,7,8-Hexachloronaphthalene	5 µg/ml

確約書について

「第一種特定化学物質」に指定されている化合物については、製造、輸入、使用は原則として禁止されています。但し、試験研究用に使用する場合に限り、経済産業大臣の許可を得ることにより使用することが出来ます。この為、使用目的等を明記した「確約書」を弊社宛に提出頂き、許可を取得したうえで販売させていただきますのでご了承ください。

「化学物質の審査及び製造等の規制に関する法律(略称：化審法)」に指定されている第一種特定化学物質に該当する弊社取扱製品は、本文中に以下の略号で表示しています。

確 第一種特定化学物質

弊社取扱品目中の第一種特定化学物質該当製品 (2010年4月1日現在)

- ・ポリ塩化ビフェニル (PCB)
- ・ポリ塩化ナフタレン (PCN) (塩素数が3以上のものに限る)
- ・ヘキサクロロベンゼン
- ・PFOS 又はその塩
- ・PFOSE
- ・ペンタクロロベンゼン
- ・ヘキサブロモビフェニル
- ・テトラブロモジフェニルエーテル
- ・ペンタブロモジフェニルエーテル
- ・ヘキサブロモジフェニルエーテル
- ・ヘプタブロモジフェニルエーテル

(化学物質の審査及び製造等の規制に関する法律施行令第一条より)

ご購入をお考えの「第一種特定化学物質」該当製品がございましたら、下記までご連絡ください。該当製品の「確約書ひな型」をお送り致します。

Wellington Laboratories Japan Inc.

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第一種特定化学物質を輸入する為の「確約書」記入例

(ポリ塩化ビフェニル(PCB)を例にしてあります。)

確約書

平成 年 月 日

株式会社ウエリントン ラボラトリーズ ジャパン
代表取締役 加坂 達司 殿

①住所
②会社名
③代表者名

代表者印

今般、貴社から購入予定の第1種特定化学物質は、「化学物質の審査及び製造等の規制に関する法律」(昭和48年法律第117号)第25条ただし書に規定する試験研究用として以下の用途に全量使用し、その取扱い及び試験研究終了後の処理については、細心の注意を払うことを確約いたします。

1. 第1種特定化学物質の名称
ポリ塩化ビフェニル (PCB)
2. 第1種特定化学物質の商品としての組成、数量及び荷姿
①PCB標準混合溶液 (種類 ノナン溶液 1セット(200ul×5)) × 1
ガラスアンプル 組成表は別紙参照
②PCB標準混合溶液 (種類 ノナン溶液 1.2ml) × 1
ガラスアンプル 組成表は別紙参照
3. 第1種特定化学物質を試験研究用に使用する者の所属、氏名及び電話番号
所 属：
氏 名：
電話番号：
4. 第1種特定化学物質を試験研究用に使用する事業所名及び所在地
事業所名：
所 在 地：
5. 試験研究の目的と概要
(1) 目的及び内容
環境試料(大気、排ガス、土壌)に含まれるポリ塩化ビフェニル(PCB)を異性体別に正確に定量分析するための標準物質として使用する。
ポリ塩化ビフェニル(PCB)は、理論的には209種類の異性体が存在し、今までの環境試料の分析ではPCB異性体の総量で定量されていた。しかし、その中には毒性の強い異性体(DL-PCB)が存在することから、毒性を正しく評価する為には、ポリ塩化ビフェニル(PCB)を異性体別に分別定量する必要がある。
今回購入するポリ塩化ビフェニル(PCB)は、ガスクロマトグラフ/質量分析計(GC/MS)で異性体別に定量分析を行うための標準溶液及び内標準液とする。
(2) 使用方法及び使用量
上記のPCBの混合標準液()は、そのまま、又は希釈し○ng/mlの内標準溶液として、1試料につき、その○mlを試料に添加して使用する。
また、()は、検量線作成用として、1回の測定でその1mlをGC/MSに注入して使用する。
(3) 使用期間
平成 年 月～平成 年 月
(4) 保管・廃棄方法
使用期間中は、標準原液及び溶液は二重栓標準溶液びんに入れ、施錠可能な毒劇物専用冷蔵庫で厳重に保管する。
標準原液及び溶液は、全量使用することが前提であるが、万が一残った場合には、ガラスアンプル又は二重栓標準溶液瓶に入れ、更にポリエチレン袋で包装し密封の上、ふた付き空き缶に入れ、施錠可能な毒劇物専用冷蔵庫で厳重に永久保存する。また内部標準液としてPCBを添加し使用した後の試料については、ガラスアンプルに入れ、上記の処理を施し施錠可能な毒劇物専用冷蔵庫で厳重に永久保存する。

上記「確約書」記入例は、平成23年3月28日経済産業省製造産業局化学物質管理課化学物質安全室からの、下記公表文書の記入例に基づいています。

「試験研究用の第一種特定化学物質(化学物質の審査及び製造等の規制に関する法律)等の輸入確認申請に際して申請書の記載内容を証明する書類(確約書等)の記載要領について」



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