



Aroclors

(Industrial PCBs)

Aroclors

Aroclor Solutions in Isooctane and Methanol, 2 Concentrations (Individuals, PAKs, Sets)

Aroclor #	Isooctane 35 µg/mL 1 mL		SAVE	PAK 5 x 1 mL	Isooctane 100 µg/mL 1 mL		Methanol 35 µg/mL 1 mL		SAVE	PAK 5 x 1 mL	Methanol 100 µg/mL 1 mL	
	Cat. No.	1 mL	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Aroclor 1016	C-216S		C-216S-PAK		C-216S-TP		C-216S-M		C-216S-M-PAK		C-216S-M-2.85X	
Aroclor 1221	C-221S		C-221S-PAK		C-221S-TP		C-221S-M		C-221S-M-PAK		C-221S-M-2.85X	
Aroclor 1232	C-232S		C-232S-PAK		C-232S-TP		C-232S-M		C-232S-M-PAK		C-232S-M-2.85X	
Aroclor 1242	C-242S		C-242S-PAK		C-242S-TP		C-242S-M		C-242S-M-PAK		C-242S-M-2.85X	
Aroclor 1248	C-248S		C-248S-PAK		C-248S-TP		C-248S-M		C-248S-M-PAK		C-248S-M-2.85X	
Aroclor 1254	C-254S		C-254S-PAK		C-254S-TP		C-254S-M		C-254S-M-PAK		C-254S-M-2.85X	
Aroclor 1260	C-260S		C-260S-PAK		C-260S-TP		C-260S-M		C-260S-M-PAK		C-260S-M-2.85X	
Aroclor 1262	C-262S		C-262S-PAK		C-262S-TP		C-262S-M		C-262S-M-PAK		C-262S-M-2.85X	
Aroclor 1268	C-268S		C-268S-PAK		C-268S-TP		C-268S-M		C-268S-M-PAK		C-268S-M-2.85X	
Set of above	Z-008S-SET		9 x 1 mL		Z-008S-M-SET		9 x 1 mL					

Aroclor Solutions in Hexane, 2 Concentrations (Individuals, PAKs, Sets)

Aroclor #	Hexane 100 µg/mL 1 mL		SAVE	PAK 5 x 1 mL
	Cat. No.	1 mL	Cat. No.	Cat. No.
Aroclor 1016	C-216S-H		C-216S-H-10X	
Aroclor 1221	C-221S-H		C-221S-H-10X	
Aroclor 1232	C-232S-H		C-232S-H-10X	
Aroclor 1242	C-242S-H		C-242S-H-10X	
Aroclor 1248	C-248S-H		C-248S-H-10X	
Aroclor 1254	C-254S-H		C-254S-H-10X	
Aroclor 1260	C-260S-H		C-260S-H-10X	
Aroclor 1262	C-262S-H		C-262S-H-10X	
Aroclor 1268	C-268S-H		C-268S-H-10X	
Set of 9 above	Z-008S-H-SET		Z-008S-H-10X-SET	

Aroclor Neats (Individuals)

Aroclor #	Neat	Unit
Aroclor 1016	C-216N	100 mg
Aroclor 1221	C-221N-50MG	50 mg
Aroclor 1232	-----	-----
Aroclor 1242	C-242N-50MG	50 mg
Aroclor 1248	C-248N-50MG	50 mg
Aroclor 1254	C-254N-50MG	50 mg
Aroclor 1260	C-260N-50MG	50 mg
Aroclor 1262	C-262N-50MG	50 mg
Aroclor 1268	-----	-----

Solutions in PCB-Free Transformer Oil (Individuals, 2 Concentrations)

Aroclor # CAS No.	Conc. ppm w/w	Individual		PAK SAVE	
		Cat. No.	1 mL	Cat. No.	5 x 1 mL
Aroclor 1016	50	C-216-ST-1		C-216-ST-1-PAK	
12674-11-2	500	C-216-ST-2		C-216-ST-2-PAK	
Aroclor 1221	50	C-221-ST-1		C-221-ST-1-PAK	
11104-28-2	500	C-221-ST-2		C-221-ST-2-PAK	
Aroclor 1232	50	C-232-ST-1		C-232-ST-1-PAK	
11141-16-5	500	C-232-ST-2		C-232-ST-2-PAK	
Aroclor 1242	50	C-242-ST-1		C-242-ST-1-PAK	
53469-21-9	500	C-242-ST-2		C-242-ST-2-PAK	
Aroclor 1248	50	C-248-ST-1		C-248-ST-1-PAK	
12672-29-6	500	C-248-ST-2		C-248-ST-2-PAK	
Aroclor 1254	50	C-254-ST-1		C-254-ST-1-PAK	
11097-69-1	500	C-254-ST-2		C-254-ST-2-PAK	
Aroclor 1260	50	C-260-ST-1		C-260-ST-1-PAK	
11096-82-5	500	C-260-ST-2		C-260-ST-2-PAK	
Aroclor 1262	50	C-262-ST-1		C-262-ST-1-PAK	
37324-23-5	500	C-262-ST-2		C-262-ST-2-PAK	
Aroclor 1268	50	C-268-ST-1		C-268-ST-1-PAK	
11100-14-4	500	C-268-ST-2		C-268-ST-2-PAK	

Aroclor-free Transformer Oil T-W130 1 x 1 mL

Aroclors 1221 & 1254 Similar but Different

Reference Standards of Aroclor Mixtures (for GC analysis)
 Technical mixtures of PCBs (Aroclors) were manufactured by Monsanto from the 1930s through 1977. In some instances there was an alteration in the manufacturing process which resulted in a more radical components change than the usual variations. This was the case for a particular batch of Aroclor 1254 (54% Chlorine by weight) that was chlorinated in two stages rather than the usual one. The product of the two stage manufacturing process was a material containing higher concentrations of the more toxic non-ortho substituted congeners. Consequently, the analyst may have to identify and quantify two distinct types of Aroclor 1254. For different reasons there also exist two distinct types of Aroclor 1221. To eliminate any confusion when encountering these Aroclors, AccuStandard offers (as an exclusive) all four variations.

C-221S-TYPE1* and C-221S-TYPE2*	C-221S-SET	2 x 1 mL
C-254S-TYPE1* and C-254S-TYPE2*	C-254S-SET	2 x 1 mL

Solutions in these sets are 35 µg/mL in Isooctane

All Standards cited in this monograph are bonafide and unadulterated Monsanto product.

Technical Note

Major Isomer Components of Aroclor 1254

Aroclor® 1254 was the most commonly used of the industrial PCB fluids. This list contains congeners which constitute the majority of the components in this material. They are offered in both neat form and solution. Solutions are in 35 µg/mL in Isooctane.

For 1254 only the following congeners may be found at > 0.5% by weight by Congener Number:

#s 44, 49, 52, 56, 64, 66, 70, 74, 82, 84, 85, 87, 91, 92, 95, 97, 99, 101, 105, 110, 118, 128, 130, 132, 135, 136, 138, 141, 146, 149, 151, 153, 156, 158, 163, 170, 180.

- The coplanar polychlorinated biphenyl (PCB) congeners; 3,3',4,4'-Tetrachlorobiphenyl (# 77), 3,3',4,4',5-Pentachlorobiphenyl (# 126), and 3,3',4,4',5,5'-Hexachlorobiphenyl (# 169) are recognized as the most toxic components of Aroclors.
- The major problem in isolation of these PCB congeners is the separation of 2,3,3',4',6-Pentachlorobiphenyl (# 110) from 3,3',4,4'-Tetrachlorobiphenyl (# 77).
- A simple cleanup procedure using alumina is proposed for the fractionation of the Aroclors on alumina which allows the isolation and analysis of the coplanar PCB congeners (1).
- The proposed internal standard 3,3',4,4'-Tetrabromobiphenyl (B-077S) enhances the accuracy of the procedure.

3,3',4,4'-Tetrabromobiphenyl is used as an Internal Standard to identify and quantify the coplanar components of Aroclors⁽¹⁾.

(1) Analysis of coplanar PCB congeners in Aroclors using alumina column cleanup. Jerry W. Anderson, ManTech Environmental Technology, Inc., R.S. Kerr Environmental Research Laboratory, U.S. Environmental Protection Agency, P.O. Box 1198, Ada, OK 74820 - Pittsburgh Conference, March 1992, New Orleans

B-077S	1 x 1 mL
35 µg/mL in Isooctane	
3,3',4,4'-Tetrabromobiphenyl	