



## BMF 32 - Plasticizers: Phthalates and Adipates

Phthalate and adipate esters are widely used as surfactants and in food and personal care products as plasticizers. Phthalates and adipates are also found in food as a result of leakage into food containers. Chiron offers a wide range of analytically pure deuterated and native phthalates and adipates, as well as mixes. Custom made mixes are available on request.



### Metabolites: Phthalate biomarkers

It has been shown that dialkylphthalates are metabolized in the body to endocrine-active monoalkyl-phthalates, and appears to be linked with the prevalence of abdominal obesity and insulin resistance in men.

### General information

Neat Compounds: Most of the compounds are also available in neat form. Please inquire for an offer.

Custom solutions: Please inquire for custom solution of the plasticizers. Please inquire if you have need for others. Other labelled plasticizers are available upon request (deuterium or <sup>13</sup>C). Description of pr. no.: iso-octane (IO), isopropanol (IP), n-hexane (HX), mixture of solvents (MX).

Phthalates, adipate and similar plasticizers	
Phthalates	
	Deuterium labelled phthalates
2478.10-100-IO	Dimethyl phthalate-3,4,5,6-d4
2892.12-K-IO	Diethyl phthalate-3,4,5,6-d4
9365.14-100-IO	Di- <i>n</i> -propyl phthalate-3,4,5,6-d4
9926.16-100-IO	<i>n</i> -Butyl-2-methylpropyl phthalate-3,4,5,6-d4
2479.16-100-IO	Di- <i>n</i> -butyl phthalate-3,4,5,6-d4
9925.18-100-IO	<i>n</i> -Pentyl-3-methylbutyl phthalate-3,4,5,6-d4
2893.18-100-IO	Di- <i>n</i> -pentyl phthalate-3,4,5,6-d4
2893.18-100-HX	Di- <i>n</i> -pentyl phthalate-3,4,5,6-d4
2893.18-K-IO	Di- <i>n</i> -pentyl phthalate-3,4,5,6-d4
3125.18-100-IO	Benzyl- <i>n</i> -butyl phthalate-3,4,5,6-d4
9366.20-100-IO	Dicyclohexyl phthalate-3,4,5,6-d4
9367.20-100-IO	Di- <i>n</i> -hexyl phthalate-3,4,5,6-d4
2361.24-100-IO	Di- <i>n</i> -octyl phthalate-3,4,5,6-d4
2361.24-100-IP	Di- <i>n</i> -octyl phthalate-3,4,5,6-d4
2894.24-K-IO	Bis(2-ethylhexyl) phthalate-3,4,5,6-d4
Monophthalate esters (metabolites)	
3805.9-K-IO	Monomethyl phthalate
3806.10-K-IO	Monoethyl phthalate
3807.12-K-IO	Mono- <i>n</i> -butyl phthalate
8633.12-K-IO	Mono- <i>iso</i> -butyl phthalate
9368.13-K-IO	Mono- <i>n</i> -pentyl phthalate
9369.13-K-IO	Mono- <i>iso</i> -pentyl phthalate
3808.15-K-MX	Monobenzyl phthalate
3590.15-K-IO	Mono- <i>n</i> -hexyl phthalate
8344.35-K-IO	Monocholesteryl phthalate
3809.16-K-IO	Mono(2-ethylhexyl) phthalate

	Diphthalate esters	
2094.10-K-IO	Dimethyl phthalate	
2094.10-10MG	Dimethyl phthalate	
2094.10-100MG	Dimethyl phthalate	
1225.12-K-IO	Diethyl phthalate	
1225.12-10MG	Diethyl phthalate	
8779.14-K-IO	Di- <i>n</i> -propyl phthalate	
8779.14-10MG	Di- <i>n</i> -propyl phthalate	
8945.14-K-IO	Di- <i>iso</i> -propyl phthalate	
2097.14-K-IO	Bis(2-methoxyethyl) phthalate	
2097.14-10MG/100MG	Bis(2-methoxyethyl) phthalate	
1226.16-K-IO	Di- <i>n</i> -butyl phthalate	DBP
1226.16-10MG/100MG	Di- <i>n</i> -butyl phthalate	DBP
2102.16-100K-NO	Di- <i>iso</i> -butyl phthalate	DiBP
2102.16-K-IO	Di- <i>iso</i> -butyl phthalate	DiBP
2102.16-10MG/100MG	Di- <i>iso</i> -butyl phthalate	DiBP
8537.16-100-IO/K-IO	<i>n</i> -Butyl <i>iso</i> -butyl phthalate	BiBP
8537.16-10MG/100MG/250MG	<i>n</i> -Butyl <i>iso</i> -butyl phthalate	BiBP
2096.16-K-IO	Bis(2-ethoxyethyl) phthalate	
2096.16-10MG/100MG	Bis(2-ethoxyethyl) phthalate	
9754.17-100-IO/K-IO	<i>n</i> -Butyl <i>n</i> -pentyl phthalate	
9754.17-10MG/100MG/250MG	<i>n</i> -Butyl <i>n</i> -pentyl phthalate	
9755.17-100-IO/K-IO	<i>iso</i> -Butyl <i>n</i> -pentyl phthalate	
9755.17-10MG/100MG/250MG	<i>iso</i> -Butyl <i>n</i> -pentyl phthalate	
9756.17-100-IO/K-IO	<i>n</i> -Pentyl <i>iso</i> -pentyl phthalate	<i>n</i> -Butyl 3-methylbutyl phthalate
9756.17-10MG/100MG/250MG	<i>n</i> -Pentyl <i>iso</i> -pentyl phthalate	<i>n</i> -Butyl 3-methylbutyl phthalate
9757.20-100-IO/K-IO	<i>n</i> -Pentyl benzyl phthalate	
9757.20-10MG/100MG/250MG	<i>n</i> -Pentyl benzyl phthalate	
9758.20-100-IO/K-IO	<i>Iso</i> -pentyl benzyl phthalate	3-Methylbutyl benzyl phthalate
9758.20-10MG/100MG/250MG	<i>Iso</i> -pentyl benzyl phthalate	3-Methylbutyl benzyl phthalate
9759.24-100-IO/K-IO	2-Ethylhexyl <i>n</i> -octyl phthalate	
9759.24-10MG/100MG/250MG	2-Ethylhexyl <i>n</i> -octyl phthalate	
2099.18-K-IO	Di- <i>n</i> -pentyl phthalate	Diamyl phthalate
2099.18-10MG/100MG	Di- <i>n</i> -pentyl phthalate	Diamyl phthalate
8425.18-K-IO	Diisopentyl phthalate (diisoamyl phthalate)	DiPP
8425.18-100MG	Diisopentyl phthalate (diisoamyl phthalate)	DiPP
8539.18-100-IO	<i>n</i> -Pentyl <i>iso</i> -pentyl phthalate	DiPP
8425.18-1G	Diisopentyl phthalate (diisoamyl phthalate)	DiPP
8539.18-K-IO	<i>n</i> -Pentyl <i>iso</i> -pentyl phthalate	DiPP
8539.18-10MG/100MG/1G	<i>n</i> -Pentyl <i>iso</i> -pentyl phthalate	DiPP
8539.18-1G	<i>n</i> -Pentyl <i>iso</i> -pentyl phthalate	DiPP
1227.19-K-IO	Butylbenzyl phthalate	BBP
1227.19-10MG	Butylbenzyl phthalate	BBP
9360.19-K-IO	<i>iso</i> -Butylbenzyl phthalate	iBBP
9360.19-10MG	<i>iso</i> -Butylbenzyl phthalate	iBBP
2056.20-100-HX	Diphenyl phthalate	
2100.20-K-IO	Dicyclohexyl phthalate	
2100.20-10MG/100MG	Dicyclohexyl phthalate	
2095.20-K-IO	Bis(2- <i>n</i> -butoxyethyl) phthalate	
2095.20-10MG/100MG	Bis(2- <i>n</i> -butoxyethyl) phthalate	
2098.20-K-IO	Bis(4-methyl-2-pentyl) phthalate	
2098.20-10MG/100MG	Bis(4-methyl-2-pentyl) phthalate	
9957.28-K-IO	Di- <i>iso</i> -decyl phthalate	(C10-alkyl ester isomer mix)
9957.28-10MG/100MG	Di- <i>iso</i> -decyl phthalate	(C10-alkyl ester isomer mix)
8733.20-K-IO	Butyl octyl phthalate	
8733.20-100MG	Butyl octyl phthalate	
2101.20-K-IO	Di- <i>n</i> -hexyl phthalate	
2101.20-10MG/100MG	Di- <i>n</i> -hexyl phthalate	



2054.22-100-HX	Dibenzyl phthalate	
2054.22-100MG	Dibenzyl phthalate	
8721.22-K-IO	Di- <i>n</i> -heptyl phthalate	
8721.22-100-100MG	Di- <i>n</i> -heptyl phthalate	
2103.22-K-IO	Hexyl 2-ethylhexyl phthalate (isomer mixture)	
2103.22-10MG/100MG	Hexyl 2-ethylhexyl phthalate (isomer mixture)	
1224.24-K-IO	Bis(2-ethylhexyl) phthalate	DEHP
1224.24-10MG	Bis(2-ethylhexyl) phthalate	DEHP
1223.24-K-IO	Di- <i>n</i> -octyl phthalate	DNOP
1223.24-10MG/100MG	Di- <i>n</i> -octyl phthalate	DNOP
8741.24-K-IO	Di- <i>iso</i> -octyl phthalate (mixture of C8-isomers)	DIOP
8741.24-100MG	Di- <i>iso</i> -octyl phthalate (mixture of C8-isomers)	DIOP
2110.26-K-IO	Di- <i>n</i> -nonyl phthalate	DNP
2110.26-10MG/100MG	Di- <i>n</i> -nonyl phthalate	DNP
9916.26-K-IO	Di- <i>iso</i> -nonyl phthalate in mixture with C8-10-branched alkyl o-phthalate , C9-rich	DiNP
9916.26-10MG/100MG	Di- <i>iso</i> -nonyl phthalate in mixture with C8-10-branched alkyl o-phthalate , C9-rich	DiNP
3049.28-K-IO	Di- <i>iso</i> -decyl phthalate	DIDP
3049.28-10MG	Di- <i>iso</i> -decyl phthalate	DIDP
3049.28-100MG	Di- <i>iso</i> -decyl phthalate	DIDP
8732.30-K-IO	Di- <i>n</i> -undecyl phthalate	Mix of C9-C11 branched alkyl esters C10 rich
8732.30-100MG	Di- <i>n</i> -undecyl phthalate	
	<b>Mixed phthalate kits</b>	
9361.3-KIT-N	Butyl-/Isobutyl phthalate Kit, neat (1226.16+8537.16+2102.16, 100mg each)	
9362.3-KIT-N	Pentyl/Isopentyl phthalate Kit, neat (2099.18+8539.18+8425.18, 100mg each)	
9363.3-KIT-N	Butyl-/Benzyl phthalate Kit, neat (1227.19+9360.19+2054.22)	
	<b>Isophthalates</b>	
2055.20-100-HX	Diphenyl isophthalate	
8016.24-K-IO	Bis(2-ethylhexyl) isophthalate	
8016.24-10MG	Bis(2-ethylhexyl) isophthalate	
8016.24-100MG	Bis(2-ethylhexyl) isophthalate	
	<b>Terephthalates</b>	
8729.9-K-IO	Monomethyl terephthalate	
8722.10-K-IO	Dimethyl terephthalate	
8730.12-K-IO	Diethyl terephthalate	
8731.22-K-IO	Bis(2-ethylhexyl) terephthalate	
	<b>Adipates (linear C6-dicarboxylic esters)</b>	
	<b>Deuterium labelled adipates</b>	
2276.22-K-IO	Bis(2-ethylhexyl) adipate-d8	
	<b>Monoadipate esters</b>	
8727.7-K-IO	Monomethyl adipate	
	<b>Diadipate esters</b>	
8724.8-K-IO	Dimethyl adipate	
8725.10-K-IO	Diethyl adipate	
8728.12-K-IO	Bis(2-methoxyethyl) adipate	
8726.12-K-IO	Dipropyl adipate	
8729.14-K-IO	Bis(2-ethoxyethyl) adipate	
1228.22-K-IO	Bis(2-ethylhexyl) adipate	BEHA
1228.22-10MG	Bis(2-ethylhexyl) adipate	BEHA
2212.22-K-IO	Di- <i>n</i> -octyl adipate	
2213.22-K-IO	Di- <i>iso</i> -octyl adipate	
2214.24-K-IO	Di- <i>n</i> -nonyl adipate	
2218.24-K-IO	Di- <i>iso</i> -nonyl adipate	
3127.10-KIT	Adipate Kit	
1919.39-KIT	Phthalate and adipate Kit	
	<b>Sebacates (linear C10-dicarboxylic esters)</b>	
8723.12-K-IO	Dimethyl sebacate	
8889.14-K-IO	Diethyl sebacate	
8387.18-K-IO	Di- <i>n</i> -butyl sebacate	
8724.26-K-IO	Bis(2-ethylhexyl) sebacate	

## Standard Mixtures

This is a selection of our phthalate containing mixtures, please inquire for other variations or for custom mixes.

### Surfactants Mixture 1

S-4002

7 Analytes, each 1000µg/mL in isooctane

1225.12	Diethyl phthalate	DEP
1228.22	Bis(2-ethylhexyl) adipate	BEHA
1223.24	Di- <i>n</i> -octyl phthalate	DNOP
1227.19	Benzyl butyl phthalate	BBP
1224.24	Bis(2-ethylhexyl) phthalate	BEHP
9916.26	Di- <i>iso</i> -nonyl phthalate in mixture with C8-10-branched alkyl o-phthalate , C9-rich	DINP
1226.16	Di- <i>n</i> -butyl phthalate	DBP

### Surfactant Mixture 2

S-4074

Each 100µg/mL in toluene

1224.24	Bis(2-ethylhexyl) phthalate	BEHP
1223.24	Di- <i>n</i> -octyl phthalate	DNOP

### EPA 606 Phthalate Esters in Waste Water by GC-ECD

S-4233

2000µg/mL in hexane

1224.24	Bis(2-ethylhexyl) phthalate	BEHP
1227.19	Benzyl butyl phthalate	BBP
1226.16	Di- <i>n</i> -butyl phthalate	DBP
1225.12	Diethyl phthalate	DEP
2094.10	Dimethyl phthalate	DMP
1223.24	Di- <i>n</i> -octyl phthalate	DNOP

### EPA 606 Control Sample Mixture

S-4234

6 Analytes in acetone

1224.4	Bis(2-ethylhexyl) phthalate	BEHP	500µL/mL
1227.19	Benzyl butyl phthalate	BBP	100µL/mL
1226.16	Di- <i>n</i> -butyl phthalate	DBP	250µL/mL
1225.12	Diethyl phthalate	DEP	250µL/mL
2094.10	Dimethyl phthalate	DMP9	250µL/mL
1223.24	Di- <i>n</i> -octyl phthalate	DNOP	500µL/mL

