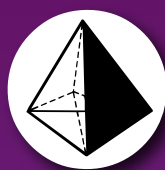


Functional Group Standards



AccuStandard[®]

Functional Groups

The Clean Water Act regulates pollutants found in US waters and sets a standard of quality for drinking water and municipal and industrial wastewater. AccuStandard has compiled some commonly found chemicals and listed them by functional group. A functional group is a group of atoms within a molecule that behaves in a characteristic way. Examples of functional groups include hydroxyl, methyl, carbonyl, carboxyl, and amino.

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Alcohol Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Allyl alcohol 107-18-6	1 mg/mL	MeOH	AS-E0475	1 mL	Isobutanol (Isobutyl alcohol) 78-83-1	10 mg/mL	Water	M-8015B-5031-15	1 mL
	10 mg/mL	Water	M-8015B-5031-05	1 mL		100 µg/mL	MeOH	APP-9-120	1 mL
Benzyl alcohol 100-51-6	100 µg/mL	MeOH	APP-9-021	1 mL		2 mg/mL	MeOH	APP-9-120-20X	1 mL
	5 mg/mL	MeOH	APP-9-021-50X	1 mL		5 mg/mL	MeOH	AS-E0659	1 mL
	5 mg/mL	AcCN	AS-E0326	1 mL	Isopropanol 67-63-0	10 mg/mL	Water	M-8015B-5031-16	1 mL
1-Butanol 71-36-3	10 mg/mL	Water	M-8015B-5031-06	1 mL	Methanol 67-56-1	10 mg/mL	Water	M-8015B-5031-17	1 mL
t-Butanol 75-65-0	2 mg/mL	MeOH	S-410	1 mL	Polyethylene glycol (PEG-600) 25322-68-3	2.5 mg/mL	THF	M-1673	1 mL
	10 mg/mL	Water	M-8015B-5031-07	1 mL	1-Propanol 71-23-8	10 mg/mL	Water	M-8015B-5031-24	1 mL
1,3-Dichloro-2-propanol 96-23-1	5 mg/mL	MeOH	AS-E0928	1 mL	Propargyl alcohol 107-19-7	1 mg/mL	Cyclohexanone	AS-E0543	1 mL
Ethanol 64-17-5	10 mg/mL	Water	M-8015B-5031-11	1 mL					
Ethylene glycol 107-21-1	10 mg/mL	Water	M-8015B-5031-13	1 mL					

Alcohol Sets

C₁-C₅ Alcohols

PS-111C-R1-SET

NEATs at 1 mL each.

14 ampules

Methanol	2-Methyl-2-propanol
Ethanol	1-Pentanol
1-Propanol	2-Pentanol
2-Propanol	3-Pentanol
1-Butanol	2-Methyl-1-butanol
2-Butanol	3-Methyl-1-butanol
2-Methyl-1-propanol	2-Methyl-2-butanol

nC₆-C₂₂ Alcohols

PS-121C-R1-SET

NEATs at 1 mL each

Solutions are Wt.% in Ethylbenzene, 1 mL each.

14 ampules

1-Hexanol	NEAT	1-Tridecanol	10%
1-Heptanol	NEAT	1-Tetradecanol	10%
1-Octanol	NEAT	1-Pentadecanol	10%
1-Nonanol	NEAT	1-Hexadecanol	10%
1-Decanol	NEAT	1-Octadecanol	5%
1-Undecanol	NEAT	1-Eicosanol	5%
1-Dodecanol	10%	1-Docosanol	5%

C₆-C₈ Alcohols

PS-131C-R1-SET

NEATs at 1 mL each.

14 ampules

1-Hexanol	2-Ethyl-1-butanol
2-Hexanol	3,3-Dimethyl-2-butanol
3-Hexanol	1-Heptanol
2-Methyl-1-pentanol	2-Heptanol
4-Methyl-2-pentanol	2,4-Dimethyl-3-pentanol
2-Methyl-3-pentanol	1-Octanol
3-Methyl-3-pentanol	2-Octanol

Alcohol Methods

Method 1673 Polyethylene glycol-600 by Derivative & HPLC

Poly(ethylene glycol)-600

M-1673

M-1673-PAK

2.5 mg/mL in Tetrahydrofuran

Polyethylene glycol-600

1 x 1 mL

SAVE 5 x 1 mL

Surrogate Standard

M-1673-SS

M-1673-SS-PAK

1.0 mg/mL in Tetrahydrofuran

Diethylene glycol monohexyl ether

1 x 1 mL

SAVE 5 x 1 mL

Derivatization Reagent

M-1673-DERV-5ML

10 mg/mL in Tetrahydrofuran

3,5-Dinitrobenzyl chloride

1 x 5 mL

Method 8015A (Rev 1, July 1992) Non-Halogenated Volatile Organics by GC/FID

Non-Halogenated Volatile Organics

M-8015A

0.2 mg/mL each in MeOH

M-8015A-10X

2.0 mg/mL each in MeOH

Diethyl ether	Methyl ethyl ketone
Ethanol	Methyl isobutyl ketone

1 x 1 mL

4 comps.

1 x 1 mL

4 comps.

M-8015-ASL

100 µg/mL each in MeOH

Alternate Source

1 x 1 mL

12 comps.

Acetonitrile	1,4-Dioxane	Methacrylonitrile
Acrylamide	Ethanol	Methyl methacrylate
2-Butanone	Ethyl methacrylate	4-Methyl-2-pentanone
Diethyl ether	Isobutanol	Propionitrile

Method 8015A (continued)

Internal Standard

M-8015B-IS-10X

2.0 mg/mL each in Water

1 x 1 mL

3 comps.

2-Chloroacrylonitrile	Hexafluoro-2-propanol
Hexafluoro-2-methyl-2-propanol	

Method 8015B Non-Halogenated Organics by GC/FID

M-8015B-5031-R-SET *

Each at 10 mg/mL in Water, except where noted

27 x 1 mL

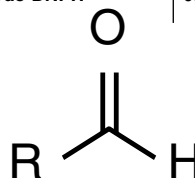
Compound	Cat. No.	Unit
Acetone	M-8015B-5031-01	1 mL
Acetonitrile	M-8015B-5031-02	1 mL
Acrolein	M-8015B-5031-03	1 mL
Acrylonitrile	M-8015B-5031-04	1 mL
Allyl alcohol	M-8015B-5031-05	1 mL
n-Butanol	M-8015B-5031-06	1 mL
t-Butanol	M-8015B-5031-07	1 mL
Crotonaldehyde	M-8015B-5031-08	1 mL
Diethyl ether	M-8015B-5031-09	1 mL
p-Dioxane	M-8015B-5031-10	1 mL
Ethanol	M-8015B-5031-11	1 mL
Ethyl acetate	M-8015B-5031-12	1 mL
Ethylene glycol	M-8015B-5031-13	1 mL
Ethylene oxide (5.0 mg/mL)	M-8015B-5031-14-R1 *	1 mL
Isobutanol	M-8015B-5031-15	1 mL
Isopropanol	M-8015B-5031-16	1 mL
Methanol	M-8015B-5031-17	1 mL
Methyl ethyl ketone	M-8015B-5031-18	1 mL
Methyl isobutyl ketone	M-8015B-5031-19	1 mL
N-Nitrosodi-n-butylamine (0.5 mg/mL)	M-8015B-5031-20	1 mL
Paraldehyde	M-8015B-5031-21	1 mL
2-Pentanone	M-8015B-5031-22	1 mL
2-Picoline	M-8015B-5031-23	1 mL
n-Propanol	M-8015B-5031-24	1 mL
Propionitrile	M-8015B-5031-25	1 mL
Pyridine	M-8015B-5031-26	1 mL
o-Toluidine	M-8015B-5031-27	1 mL

* ColdPAK required to maintain integrity of product.

Aldehydes and Ketones

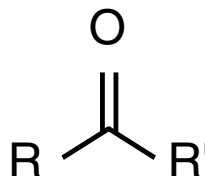
Aldehydes and Derivatives Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Allyl alcohol 107-18-6	1 mg/mL	MeOH	AS-E0475	1 mL	Heptanal-DNPH 2074-05-7	1000 µg/mL	MeOH:AcCN	M-554-DNPH-07	1 mL
Benzyl alcohol 100-51-6	10 mg/mL	Water	M-8015B-5031-05	1 mL	Hexanal 66-25-1	0.1 mg/mL	AcCN	M-8315-R-DNPH-11	1 mL
Acetaldehyde 75-07-0	100 µg/mL	MeOH	APP-9-021	1 mL	Hexanal-DNPH 1527-97-5	1000 µg/mL	MeOH:AcCN	M-554-DNPH-08	1 mL
Acetaldehyde-DNPH 1019-57-4	5 mg/mL	MeOH	APP-9-021-50X	1 mL	Isobutyraldehyde 78-84-2	0.1 mg/mL	AcCN	M-8315-R-DNPH-12	1 mL
Acrolein 107-02-8	1000 µg/mL	MeOH	M-554-01 *	1 mL	Isobutyraldehyde-DNPH 2057-82-1	1000 µg/mL	AcCN	M-1667A-03	1 mL
Acrolein-DNPH 888-54-0	1000 µg/mL	Water	M-8315-01	1 mL	Isovaleraldehyde-DNPH 2256-01-1	1 mg/mL	AcCN	M-1667A-DNPH-03	1 mL
Benzaldehyde-DNPH 1157-84-2	100 µg/mL	MeOH:Water	APP-9-007 *	1 mL	Nonanal 124-19-6	0.1 mg/mL	AcCN	M-8315-R-DNPH-13	1 mL
Butanal 123-72-8	1000 µg/mL	MeOH:Water	APP-9-007-10X *	1 mL	Nonanal-DNPH 2348-19-8	1000 µg/mL	MeOH:AcCN	M-554-DNPH-09	1 mL
Butanal-DNPH 1527-98-6	100 µg/mL	Water	APP-9-007-W	1 mL	Octanal 124-13-0	0.1 mg/mL	AcCN	M-8315-R-DNPH-14	1 mL
Crotonaldehyde 123-73-9	1000 µg/mL	Water	APP-9-007-W-10X	1 mL	Octanal-DNPH 1726-77-8	1000 µg/mL	MeOH	M-554-10	1 mL
Crotonaldehyde-DNPH 1527-96-4	5 mg/mL	p-Dioxane	AS-E0002	1 mL	Paraldehyde 123-63-7	0.1 mg/mL	AcCN	M-554-DNPH-10	1 mL
Decanal 112-31-2	10 mg/mL	Water	M-8015B-5031-03	1 mL	Pentanal 110-62-3	10 mg/mL	Water	M-8015B-5031-21	1 mL
Decanal-DNPH 1527-95-3	0.1 mg/mL	AcCN	M-8315-R-DNPH-03	1 mL	Pentanal-DNPH 2057-84-3	1000 µg/mL	MeOH	M-554-11	1 mL
2,5-Dimethylbenzaldehyde-DNPH 152477-96-8	1 µg/mL	AcCN	S-1275-1-03	1 mL	Propanal 123-38-6	1000 µg/mL	MeOH:AcCN	M-554-DNPH-11	1 mL
Formaldehyde 50-00-0	0.1 mg/mL	AcCN	M-8315-R-DNPH-04	1 mL	Propanal-DNPH 725-00-8	0.1 mg/mL	AcCN	M-8315-R-DNPH-16	1 mL
Formaldehyde-DNPH 1081-15-8	1000 µg/mL	MeOH:AcCN	M-554-DNPH-05	1 mL	m-Tolualdehyde-DNPH 2880-05-9	1000 µg/mL	MeOH	M-554-12 *	1 mL
Formamide 75-12-7	0.1 mg/mL	AcCN	M-8315-R-DNPH-06	1 mL	o-Tolualdehyde-DNPH 1773-44-0	0.1 mg/mL	AcCN	M-554-DNPH-12	1 mL
2-Furaldehyde-DNPH 2074-02-4	1000 µg/mL	AcCN	M-8315-R-DNPH-09	1 mL	p-Tolualdehyde-DNPH 2571-00-8	0.1 mg/mL	AcCN	M-8315-R-DNPH-17	1 mL
Heptanal 111-71-7	1000 µg/mL	MeOH	M-554-05	1 mL				M-8315-R-DNPH-18	1 mL
								M-8315-R-DNPH-19	1 mL
								M-8315-R-DNPH-20	1 mL



Ketones and Derivatives Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Acetone 67-64-1	100 µg/mL	MeOH	APP-9-003	1 mL	Isophorone 78-59-1	100 µg/mL	MeOH	APP-9-122	1 mL
Acetone-DNPH 1567-89-1	2 mg/mL	MeOH	APP-9-003-20X	1 mL		1000 µg/mL	MeOH	APP-9-122-10X	1 mL
Acetophenone 98-86-2	5 mg/mL	MeOH	AS-E0284 *	1 mL	Methyl ethyl ketone 78-93-3	1000 µg/mL	MeOH	AS-E0052	1 mL
2-Chloroacetophenone 532-27-4	10 mg/mL	Water	M-8015B-5031-01	1 mL		100 µg/mL	MeOH	APP-9-129 *	1 mL
2'-Chloroacetophenone 2142-68-9	0.1 mg/mL	AcCN	M-8315-R2-DNPH-02	1 mL		1000 µg/mL	MeOH	APP-9-129-10X *	1 mL
3'-Chloroacetophenone 99-02-5	100 µg/mL	CH ₂ Cl ₂	APP-9-004	1 mL		2000 µg/mL	MeOH	APP-9-129-20X *	1 mL
4'-Chloroacetophenone 99-91-2	2 mg/mL	CH ₂ Cl ₂	APP-9-004-20X	1 mL		5 mg/mL	MeOH	AS-E0311 *	1 mL
Cyclohexanone 108-94-1	5 mg/mL	MeOH	AS-E0411	1 mL	4-Methyl-2-pentanone 108-10-1 (Methyl isobutyl ketone)	10 mg/mL	Water	M-8015B-5031-18	1 mL
Cyclohexanone-DNPH 1589-62-4	100 µg/mL	Hexane	IRT-001S	1 mL		100 µg/mL	MeOH	APP-9-135	1 mL
1,1-Dichloro-2-propanone 513-88-2	100 µg/mL	Hexane	IRT-002S	1 mL		2 mg/mL	MeOH	APP-9-135-20X	1 mL
2-Hexanone 591-78-6	100 µg/mL	Hexane	IRT-003S	1 mL	2-Pentanone 107-87-9	5 mg/mL	MeOH	AS-E0349	1 mL
	1000 µg/mL	MeOH	M-554-04 *	1 mL		10 mg/mL	Water	M-8015B-5031-22	1 mL
	1000 µg/mL	MeOH:AcCN	M-554-DNPH-04	1 mL	1,1,1-Trichloro-2-propanone 918-00-3 (1,1,1-Trichloroacetone)	1000 µg/mL	Acetone	AS-E1181	1 mL
	0.1 mg/mL	AcCN	M-8315-R-DNPH-07	1 mL	2,4,5'-Trifluoroacetophenone 129322-83-4	5 mg/mL	Acetone	M-551B-8	1 mL
	5 mg/mL	Acetone	M-551B-6	1 mL		20 µg/mL	AcCN	M-556-SS	1 mL
						2 mg/mL	AcCN	M-556-SS-100X	1 mL



* ColdPAK required to maintain integrity of product.

Aldehydes and Ketones

Aldehyde and Ketone Methods

Method 554 Carbonyl Compounds as DNPH Derivatives by HPLC

Carbonyl Compounds

M-554-R1

1.0 mg/mL each in AcCN

1 x 1 mL
12 comps.

	Cat. No.	Unit
Acetaldehyde	M-554-01 *	1 mL
Butanal	M-554-02 *	1 mL
Crotonaldehyde	M-554-03 *	1 mL
Cyclohexanone	M-554-04 *	1 mL
Decanal	M-554-05	1 mL
Formaldehyde	M-554-06 *	1 mL
Heptanal	M-554-07	1 mL
Hexanal	M-554-08	1 mL
Nonanal	M-554-09	1 mL
Octanal	M-554-10	1 mL
Pentanal	M-554-11	1 mL
Propanal	M-554-12 *	1 mL

DNPH Derivatives

M-554-DNPH

1.0 mg/mL each in MeOH:AcCN (95:5)

1 x 1 mL
12 comps.

M-554-DNPH-R1

1.0 mg/mL each in AcCN

1 x 1 mL
12 comps.

M-554-DNPH-SET

Each at 1.0 mg/mL in MeOH:AcCN (95:5)

2 x 1 mL

	Cat. No.	Unit
Acetaldehyde-DNPH	M-554-DNPH-01	1 mL
Butanal-DNPH	M-554-DNPH-02	1 mL
Crotonaldehyde-DNPH	M-554-DNPH-03	1 mL
Cyclohexanone-DNPH	M-554-DNPH-04	1 mL
Decanal-DNPH	M-554-DNPH-05	1 mL
Formaldehyde-DNPH	M-554-DNPH-06	1 mL
Heptanal-DNPH	M-554-DNPH-07	1 mL
Hexanal-DNPH	M-554-DNPH-08	1 mL
Nonanal-DNPH	M-554-DNPH-09	1 mL
Octanal-DNPH	M-554-DNPH-10	1 mL
Pentanal-DNPH	M-554-DNPH-11	1 mL
Propanal-DNPH	M-554-DNPH-12	1 mL

Method 556/556.1 Carbonyl Compounds by PFBHA Derivative with analysis by GC/ECD

Mix A

M-556-MIXA

1.0 mg/mL each in AcCN

1 x 1 mL
13 comps.

Acetaldehyde	Decanal	Nonanal
Benzaldehyde	Formaldehyde	Octanal
Butanal	Heptanal	Pentanal
Crotonaldehyde	Hexanal	Propanal
Cyclohexanone		

Mix B

M-556-MIXB

1.0 mg/mL each in AcCN

1 x 1 mL
2 comps.

Glyoxal	Methyl glyoxal
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Method 1667A Formaldehyde, Isobutylaldehyde & Furfural by Derivatization followed by HPLC for PMI pollutants

PMI Carbonyl Set

M-1667A-SET

Each at 1.0 mg/mL in AcCN

3 x 1 mL

	Cat. No.	Unit
Formaldehyde	M-1667A-01	1 mL
2-Furaldehyde	M-1667A-02	1 mL
Isobutylaldehyde	M-1667A-03	1 mL

PMI QA/QC Carbonyl Mixture

M-1667A-M

M-1667A-M-PAK

250 µg/mL each in AcCN

1 x 1 mL

SAVE 5 x 1 mL

3 comps.

Formaldehyde	Isobutylaldehyde
2-Furaldehyde	

PMI Carbonyl DNPH Set

M-1667A-DNPH-SET

Each at 1.0 mg/mL in AcCN

3 x 1 mL

	Cat. No.	Unit
Formaldehyde-DNPH	M-1667A-DNPH-01	1 mL
2-Furaldehyde-DNPH	M-1667A-DNPH-02	1 mL
Isobutylaldehyde-DNPH	M-1667A-DNPH-03	1 mL

PMI QA/QC Carbonyl Derivative DNPH Mixture

M-1667A-DNPH

M-1667A-DNPH-PAK

250 µg/mL each in AcCN

1 x 1 mL

SAVE 5 x 1 mL

3 comps.

Formaldehyde-DNPH	Isobutylaldehyde-DNPH
2-Furaldehyde-DNPH	

PMI Derivatization Reagent

M-1667A-DERV-10ML

M-1667A-DERV-10ML-PAK

1.0 mg/mL in AcCN

10 mL

SAVE 5 x 10 mL

2,4-Dinitrophenylhydrazine (DNPH)

Method 8015A (Rev 1, July 1992) Non-Halogenated Volatile Organics by GC/FID

Non-Halogenated Volatile Organics

M-8015A

0.2 mg/mL each in MeOH

1 x 1 mL

4 comps.

M-8015A-10X

2.0 mg/mL each in MeOH

1 x 1 mL

4 comps.

Diethyl ether	Methyl ethyl ketone
Ethanol	4-Methyl-2-pentanone

M-8015-ASL

100 µg/mL each in MeOH

Alternate Source

1 x 1 mL

12 comps.

Acetonitrile	Ethyl methacrylate
Acrylamide	Isobutanol
2-Butanone	Methacrylonitrile
Diethyl ether	Methyl methacrylate
1,4-Dioxane	4-Methyl-2-pentanone
Ethanol	Propionitrile

Internal Standard

M-8015B-IS-10X

2.0 mg/mL each in Water

1 x 1 mL

3 comps.

2-Chloroacrylonitrile	Hexafluoro-2-propanol
Hexafluoro-2-methyl-2-propanol	

* ColdPAK required to maintain integrity of product.

Aldehyde and Ketones continued on next page

Aldehydes and Ketones

Method 8315/8315A Aldehydes / Ketones by HPLC

Aldehyde Mixture

M-8315

M-8315-PAK

1.0 mg/mL each in Water

1 x 1 mL
SAVE 5 x 1 mL
2 comps.

Acetaldehyde

Formaldehyde

Aldehyde Individuals

Acetaldehyde (1.0 mg/mL in Water)

M-8315-01

1 x 1 mL

Formaldehyde (1.0 mg/mL in Water)

M-8315-02

1 x 1 mL

Aldehyde as DNPH Derivatives

M-8315-DNPH-10ML

1.0 mg/mL each in MeOH

1 x 10 mL
2 comps.

Acetaldehyde-DNPH

Formaldehyde-DNPH

Option 1

(Samples Collected from Water, Air, Soil, Waste or Stacks by Method 0011)

Carbonyl Mixture

M-8315-R1

1.0 mg/mL each in AcCN

1 x 1 mL
12 comps.

Acetaldehyde

Heptanal

Butanal (Butyraldehyde)

Hexanal (Hexaldehyde)

Crotonaldehyde

Nonanal

Cyclohexanone

Octanal

Decanal

Pentanal (Valeraldehyde)

Formaldehyde

Propanal (Propionaldehyde)

Carbonyl DNPH Derivative Mixture

M-8315-R1-DNPH

0.1 mg/mL each in AcCN

1 x 1 mL
12 comps.

Acetaldehyde-DNPH

Heptanal-DNPH

Butanal-DNPH (Butyraldehyde)

Hexanal-DNPH (Hexaldehyde)

Crotonaldehyde-DNPH

Nonanal-DNPH

Cyclohexanone-DNPH

Octanal-DNPH

Decanal-DNPH

Pentanal-DNPH (Valeraldehyde)

Formaldehyde-DNPH

Propanal-DNPH (Propionaldehyde)

Option 2

(Samples Collected from Indoor Air by Method 0100)

Carbonyl Mixture

M-8315-R2

1.0 mg/mL each in AcCN

1 x 1 mL
15 comps.

Acetaldehyde

Hexanal (Hexaldehyde)

Acetone

Isovaleraldehyde

Acrolein

Pentanal (Valeraldehyde)

Benzaldehyde

Propanal (Propionaldehyde)

Butanal (Butyraldehyde)

m-Tolualdehyde

Crotonaldehyde

o-Tolualdehyde

2,5-Dimethylbenzaldehyde

p-Tolualdehyde

Formaldehyde

Method 5031 GC/FID Internal Standards for Method 8015B/5031 Azeotropic Distillation

M-8260-5031-IS-FID

5.0 mg/mL each in Water

1 x 1 mL
3 comps.

2-Chloroacetonitrile

Hexafluoro-2-propanol

Hexafluoro-2-methyl-2-propanol

Carbonyl DNPH Derivative Mixture

M-8315-R2-DNPH

0.1 mg/mL each in AcCN

1 x 1 mL
15 comps.

Acetaldehyde-DNPH

Hexanal (Hexaldehyde)

Acetone-DNPH

Isovaleraldehyde-DNPH

Acrolein-DNPH

Pentanal-DNPH (Valeraldehyde)

Benzaldehyde-DNPH

Propanal-DNPH (Propionaldehyde)

Butanal-DNPH (Butyraldehyde)

m-Tolualdehyde-DNPH

Crotonaldehyde-DNPH

o-Tolualdehyde-DNPH

2,5-Dimethylbenzaldehyde-DNPH

p-Tolualdehyde-DNPH

Formaldehyde-DNPH

Carbonyl Compound Set

M-8315-R3-10X-SET

Each at 1.0 mg/mL in AcCN

20 x 1 mL

Acetaldehyde

Heptanal

Acetone

Hexanal (Hexaldehyde)

Acrolein

Isovaleraldehyde

Benzaldehyde

Nonanal

Butanal (Butyraldehyde)

Octanal

Crotonaldehyde

Pentanal (Valeraldehyde)

Cyclohexanone

Propanal (Propionaldehyde)

Decanal

m-Tolualdehyde

2,5-Dimethylbenzaldehyde

o-Tolualdehyde

Formaldehyde

p-Tolualdehyde

Carbonyl DNPH Derivative Set

M-8315-R-DNPH-SET

Each at 0.1 mg/mL in AcCN

20 x 1 mL

Acetaldehyde-DNPH

Heptanal-DNPH

Acetone-DNPH

Hexanal-DNPH (Hexaldehyde)

Acrolein-DNPH

Isovaleraldehyde-DNPH

Benzaldehyde-DNPH

Nonanal-DNPH

Butanal-DNPH (Butyraldehyde)

Octanal-DNPH

Crotonaldehyde-DNPH

Pentanal-DNPH (Valeraldehyde)

Cyclohexanone-DNPH

Propanal-DNPH (Propionaldehyde)

Decanal-DNPH

m-Tolualdehyde-DNPH

2,5-Dimethylbenzaldehyde-DNPH

o-Tolualdehyde-DNPH

Formaldehyde-DNPH

p-Tolualdehyde-DNPH

Method 8015B Non-Halogenated Organics by GC/FID

M-8015B-5031-R-SET *

Each at 10 mg/mL in Water

27 x 1 mL

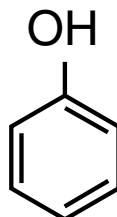
Compound	Cat. No.	Unit
Acetone	M-8015B-5031-01	1 mL
Acetonitrile	M-8015B-5031-02	1 mL
Acrolein	M-8015B-5031-03	1 mL
Acrylonitrile	M-8015B-5031-04	1 mL
Allyl alcohol	M-8015B-5031-05	1 mL
n-Butanol	M-8015B-5031-06	1 mL
t-Butanol	M-8015B-5031-07	1 mL
Crotonaldehyde	M-8015B-5031-08	1 mL
Diethyl ether	M-8015B-5031-09	1 mL
p-Dioxane	M-8015B-5031-10	1 mL
Ethanol	M-8015B-5031-11	1 mL
Ethyl acetate	M-8015B-5031-12	1 mL
Ethylene glycol	M-8015B-5031-13	1 mL
Ethylene oxide (5.0 mg/mL)	M-8015B-5031-14-R1 *	1 mL
Isobutanol	M-8015B-5031-15	1 mL
Isopropanol	M-8015B-5031-16	1 mL
Methanol	M-8015B-5031-17	1 mL
Methyl ethyl ketone	M-8015B-5031-18	1 mL
Methyl isobutyl ketone	M-8015B-5031-19	1 mL
N-Nitrosodi-n-butylamine (0.5 mg/mL)	M-8015B-5031-20	1 mL
Paraldehyde	M-8015B-5031-21	1 mL
2-Pentanone	M-8015B-5031-22	1 mL
2-Picoline	M-8015B-5031-23	1 mL
n-Propanol	M-8015B-5031-24	1 mL
Propionitrile	M-8015B-5031-25	1 mL
Pyridine	M-8015B-5031-26	1 mL
o-Toluidine	M-8015B-5031-27	1 mL

* ColdPAK required to maintain integrity of product.

Phenols

Phenols Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Bisphenol A (BPA) 80-05-7	1000 µg/mL	MeOH	M-1626-01S	1 mL	2-Methyl-4,6-dinitrophenol 534-52-1	1000 µg/mL	MeOH	M-8040-12	1 mL
4-Chloro-3-cresol 59-50-7 (4-Chloro-3-methylphenol)	1000 µg/mL	MeOH	M-8040-01	1 mL	2-Nitrophenol (o-Nitrophenol) 88-75-5		NEAT	R-051N	100 mg
2-Chlorophenol 95-57-8	100 µg/mL	MeOH	APP-9-041	1 mL		100 µg/mL	Toluene	R-051S	1 mL
		NEAT	A-013	100 mg		100 µg/mL	MeOH	APP-9-144	1 mL
	100 µg/mL	MeOH	APP-9-046	1 mL		1000 µg/mL	MeOH	M-8040-13	1 mL
	1 mg/mL	MeOH	M-8040-02	1 mL		5 mg/mL	MeOH	APP-9-144-50X	1 mL
	5 mg/mL	MeOH	APP-9-046-50X	1 mL		5 mg/mL	MeOH	AS-E0662	1 mL
	2 mg/mL	CH ₂ Cl ₂	APP-9-046-D-20X	1 mL	3-Nitrophenol (m-Nitrophenol) 554-84-7				
	5 mg/mL	MeOH	AS-E0022	1 mL	4-Nitrophenol (p-Nitrophenol) 100-02-7		NEAT	R-052N	100 mg
2-Chlorophenol-d₄ 93951-73-6	0.2 mg/mL	CH ₂ Cl ₂	M-625-20	1 mL		100 µg/mL	Toluene	R-052S	1 mL
3-Chlorophenol 108-43-0		NEAT	A-014	100 mg		100 µg/mL	MeOH	APP-9-145	1 mL
	5 mg/mL	MeOH	AS-E0182	1 mL		1 mg/mL	MeOH	M-8040-14	1 mL
4-Chlorophenol 106-48-9		NEAT	A-015	100 mg	Pentachlorophenol 87-86-5		NEAT	A-031	100 mg
	5 mg/mL	MeOH	AS-E0183	1 mL		25 µg/mL	CH ₂ Cl ₂	M-625C-2	1 mL
m-Cresol 108-39-4	100 µg/mL	CH ₂ Cl ₂	APP-9-050	1 mL		0.25 mg/mL	CH ₂ Cl ₂	M-625C-2-10X	1 mL
	1000 µg/mL	CH ₂ Cl ₂	APP-9-050-10X	1 mL		100 µg/mL	MeOH	APP-9-176	1 mL
	1000 µg/mL	MeOH	M-8040-03	1 mL		1000 µg/mL	MeOH	APP-9-176-10X	1 mL
	5 mg/mL	MeOH	AS-E0251	1 mL		2 mg/mL	CH ₂ Cl ₂	APP-9-176-D-20X	1 mL
o-Cresol 95-48-7	100 µg/mL	CH ₂ Cl ₂	APP-9-051	1 mL		5 mg/mL	MeOH	AS-E0062	1 mL
	1000 µg/mL	MeOH	M-8040-04	1 mL	Pentachlorophenol-¹³C₆ 85380-74-1	0.1 mg/mL	Acetone	AS-E0191	1 mL
	2 mg/mL	CH ₂ Cl ₂	APP-9-051-20X	1 mL	Pentafluorophenol 771-61-9	0.2 mg/mL	CH ₂ Cl ₂	M-625-17	1 mL
	5 mg/mL	MeOH	AS-E0250	1 mL		100 µg/mL	CH ₂ Cl ₂	APP-9-179	1 mL
p-Cresol 106-44-5	100 µg/mL	CH ₂ Cl ₂	APP-9-052	1 mL		5 mg/mL	MeOH	AS-E0063	1 mL
	1000 µg/mL	MeOH	M-8040-05	1 mL	Phenol 108-95-2	0.1 mg/mL	Acetone	AS-E0189	1 mL
	2 mg/mL	CH ₂ Cl ₂	APP-9-052-20X	1 mL		0.2 mg/mL	CH ₂ Cl ₂	M-625-18	1 mL
	5 mg/mL	MeOH	AS-E0252	1 mL		2 mg/mL	CH ₂ Cl ₂	M-625-18-10X	1 mL
2-Cyclohexyl-4,6-dinitrophenol 131-89-5	1000 µg/mL	MeOH	M-8040-06	1 mL	2,3,4,5-Tetrachlorophenol 4901-51-3		NEAT	A-028	5 mg
2,4-Dibromophenol 615-58-7	1.6 µg/mL	IPA	M-8041-SS	1 mL	2,3,4,6-Tetrachlorophenol 58-90-2		NEAT	A-029-10MG	10 mg
	16 µg/mL	IPA	M-8041-SS-10X	1 mL		100 µg/mL	MeOH	APP-9-195	1 mL
	160 µg/mL	IPA	M-8041-SS-100X	1 mL		1000 µg/mL	MeOH	M-8040-17	1 mL
	1 mg/mL	IPA	M-8041-SS-625X	1 mL	2,3,5,6-Tetrachlorophenol 935-95-5		NEAT	A-030	100 mg
2,3-Dichlorophenol 576-24-9		NEAT	A-016	100 mg	2,4,6-Tribromophenol 118-79-6	20 µg/mL	MtBE	M-8085-HERB-SS	1 mL
2,4-Dichlorophenol 120-83-2		NEAT	A-017	100 mg		0.2 mg/mL	CH ₂ Cl ₂	M-625-19	1 mL
	100 µg/mL	MeOH	APP-9-075	1 mL		0.2 mg/mL	MeOH	M-604-SS	1 mL
	1000 µg/mL	MeOH	M-8040-07	1 mL		2 mg/mL	MeOH	CLP-AS-3	1 mL
	1000 µg/mL	MtBE	M-552A-R-06	1 mL		6 mg/mL	MeOH	CLP-LC-SS-2	1 mL
	5 mg/mL	MeOH	APP-9-075-50X	1 mL	2,3,4-Trichlorophenol 15950-66-0		NEAT	A-022	100 mg
2,5-Dichlorophenol 583-78-8		NEAT	A-018	100 mg	2,3,5-Trichlorophenol 933-78-8		NEAT	A-023	100 mg
2,6-Dichlorophenol 87-65-0		NEAT	A-019	100 mg		5 mg/mL	MeOH	AS-E0222	1 mL
	100 µg/mL	CH ₂ Cl ₂	APP-9-076	1 mL	2,3,6-Trichlorophenol 933-75-5		NEAT	A-024	100 mg
	1000 µg/mL	MeOH	M-8040-08	1 mL		1 mg/mL	MeOH	AS-E0181	1 mL
	5 mg/mL	MeOH	APP-9-076-M-50X	1 mL	2,4,5-Trichlorophenol 95-95-4		NEAT	A-025	100 mg
3,4-Dichlorophenol 95-77-2		NEAT	A-020	100 mg		0.1 mg/mL	Acetone	CLP-FC	1 mL
3,5-Dichlorophenol 591-35-5		NEAT	A-021	100 mg		100 µg/mL	MeOH	APP-9-206	1 mL
2,4-Dimethylphenol 105-67-9	100 µg/mL	MeOH	APP-9-087	1 mL		1000 µg/mL	MeOH	M-8040-18	1 mL
	1000 µg/mL	MeOH	M-8040-09	1 mL	2,4,6-Trichlorophenol 88-06-2	5 mg/mL	MeOH	AS-E0179	1 mL
	5 mg/mL	MeOH	APP-9-087-50X	1 mL			NEAT	A-026	100 mg
2,4-Dimethylphenol-3,5,6-d₃ 93951-75-8	0.1 mg/mL	Acetone	AS-E0190	1 mL		0.1 µg/mL	Acetone	M-1618-SE	1 mL
4,6-Dinitro-o-cresol 534-52-1		NEAT	R-057N	100 mg		0.1 mg/mL	Acetone	M-1600-SPE	1 mL
	100 µg/mL	Toluene	R-057S	1 mL		100 µg/mL	MeOH	APP-9-207	1 mL
	1000 µg/mL	MeOH	APP-9-090-10X	1 mL		5 mg/mL	MeOH	APP-9-207-50X	1 mL
	5 mg/mL	MeOH	AS-E0058	1 mL		1000 µg/mL	MtBE	M-552A-7	1 mL
2,4-Dinitrophenol 51-28-5	100 µg/mL	MeOH	APP-9-091	1 mL		1000 µg/mL	MeOH	M-8040-19	1 mL
	1000 µg/mL	MeOH	M-8040-10	1 mL	3,4,5-Trichlorophenol 609-19-8		NEAT	A-027	10 mg
	5 mg/mL	MeOH	APP-9-091-50X	1 mL		1 mg/mL	MeOH	M-1653-IS	1 mL
2-Fluorophenol 367-12-4	0.1 mg/mL	Acetone	AS-E0193	1 mL		1 mg/mL	Acetone	M-1653-IS-R	1 mL
	2 mg/mL	MeOH	CLP-AS-1	1 mL					
	0.2 mg/mL	CH ₂ Cl ₂	M-625-16	1 mL					
	2 mg/mL	CH ₂ Cl ₂	M-625-16-10X	1 mL					



Phenols continued on next page

Phenols

Phenol Methods

DIN EN 12673 Chlorophenols

Scope: Determination of selected chlorophenols in water by GC

DINEN-12673

At stated conc. (µg/mL) in Ethanol

1 x 1 mL
19 comps.

2-Chlorophenol	30	2,3,5-Trichlorophenol	3
3-Chlorophenol	30	2,3,6-Trichlorophenol	3
4-Chlorophenol	30	2,4,5-Trichlorophenol	3
2,3-Dichlorophenol	4	2,4,6-Trichlorophenol	3
2,4-Dichlorophenol	4	3,4,5-Trichlorophenol	3
2,5-Dichlorophenol	4	2,3,4,5-Tetrachlorophenol	2
2,6-Dichlorophenol	4	2,3,4,6-Tetrachlorophenol	2
3,4-Dichlorophenol	4	2,3,5,6-Tetrachlorophenol	2
3,5-Dichlorophenol	4	Pentachlorophenol	1
2,3,4-Trichlorophenol	3		

DIN EN ISO 17495 Nitrophenols

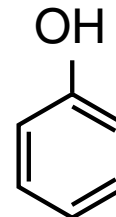
Scope: determination of selected nitrophenols by solid-phase extraction and gas chromatography with mass spectrometric detection.

DINENISO-17495

500 µg/mL each in Acetone

1 x 1 mL
14 comps.

2,4-Dinitrophenol	2-Nitrophenol
2,5-Dinitrophenol	3-Nitrophenol
2,6-Dinitrophenol	4-Nitrophenol
2-Methyl-4,6-dinitrophenol	4-Methyl-2-nitrophenol
2,6-Dimethyl-4-nitrophenol	3-Methyl-4-nitrophenol
2,4-Dichloro-6-nitrophenol	5-Methyl-2-nitrophenol
2,6-Dichloro-4-nitrophenol	3-Methyl-2-nitrophenol



Method 528 Phenols by GC/MS

Stock Calibration Standard

M-528-CONC

M-528-CONC-PAK

2000 µg/mL each in CH₂Cl₂

1 x 1 mL
SAVE 5 x 1 mL
12 comps.

4-Chloro-3-methylphenol	2-Methyl-4,6-Dinitrophenol
2-Chlorophenol	2-Nitrophenol
o-Cresol	4-Nitrophenol
2,4-Dichlorophenol	Pentachlorophenol
2,4-Dimethylphenol	Phenol
2,4-Dinitrophenol	2,4,6-Trichlorophenol

Internal Standard

M-528-IS

M-528-IS-PAK

At stated conc. (µg/mL) in CH₂Cl₂

1 x 1 mL
SAVE 5 x 1 mL
2 comps.

1,2-Dimethyl-3-nitrobenzene	1000
2,3,4,5-Tetrachlorophenol	2000

Peak Tailing Factor Standard

M-528-PTF

M-528-PTF-PAK

10 µg/mL each in CH₂Cl₂

1 x 1 mL
SAVE 5 x 1 mL
4 comps.

2,4-Dimethylphenol	4-Nitrophenol
2-Methyl-4,6-dinitrophenol	Pentachlorophenol

Analyte Fortification Solution

M-528-AFS

M-528-AFS-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL
SAVE 5 x 1 mL
12 comps.

4-Chloro-3-methylphenol	100	2-Methyl-4,6-Dinitrophenol	500
2-Chlorophenol	100	2-Nitrophenol	100
o-Cresol	100	4-Nitrophenol	500
2,4-Dichlorophenol	100	Pentachlorophenol	500
2,4-Dimethylphenol	100	Phenol	100
2,4-Dinitrophenol	500	2,4,6-Trichlorophenol	100

Surrogate Standards

M-528-SS

M-528-SS-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL
SAVE 5 x 1 mL
3 comps.

2-Chlorophenol-d ₄	1000
2,4-Dimethylphenol-3,5,6-d ₃	1000
2,4,6-Tribromophenol	2500

M-528-SS2

M-528-SS2-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL
SAVE 5 x 1 mL
3 comps.

2-Chlorophenol-d ₄	1000
2,4-Dimethylphenol-3,5,6-d ₃	1000
2,4,6-Tribromophenol	2000

Method 604 Phenols by GC/FID

M-604

M-604-PAK

0.5 mg/mL each in MeOH

1 x 1 mL
SAVE 5 x 1 mL
11 comps.

4-Chloro-3-methylphenol	2-Nitrophenol
2-Chlorophenol	4-Nitrophenol
2,4-Dichlorophenol	Pentachlorophenol
2,4-Dimethylphenol	Phenol
2,4-Dinitrophenol	2,4,6-Trichlorophenol
2-Methyl-4,6-dinitrophenol	

Surrogate Standard

M-604-SS

0.2 mg/mL each in MeOH

1 x 1 mL

2,4,6-Tribromophenol

Phenol as Pentafluorobenzyl Derivatives by GC/ECD

M-604-PFB

M-604-PFB-PAK

0.2 mg/mL each in MeOH

1 x 1 mL
SAVE 5 x 1 mL
11 comps.

4-Chloro-3-methylphenol-PFB	2-Nitrophenol-PFB
2-Chlorophenol-PFB	4-Nitrophenol-PFB
2,4-Dichlorophenol-PFB	Pentachlorophenol-PFB
2,4-Dimethylphenol-PFB	Phenol-PFB
2,4-Dinitrophenol-PFB	2,4,6-Trichlorophenol-PFB
2-Methyl-4,6-dinitrophenol-PFB	

Surrogate Standard

M-604-SS-PFB

0.2 mg/mL each in MeOH

1 x 1 mL

2,4,6-Tribromophenol-PFB

Method 642 Phenols by HPLC

Additional Method by HPLC

M-642

0.1 mg/mL in AcCN

1 x 1 mL
2 comps.

Biphenyl	o-Phenylphenol
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Phenols

Phenol Methods (continued)

Method 8040 Phenols, PFB Derivatives by GC/ECD

Phenols, PFB Derivatives - Mix A

M-8040A-R-PFB

M-8040A-R-PFB-PAK

0.2 mg/mL each in MeOH

1 x 1 mL
SAVE 5 x 1 mL
10 comps.

4-Chloro-3-cresol-PFB	<i>o</i> -Nitrophenol-PFB
<i>o</i> -Cresol-PFB	<i>p</i> -Nitrophenol-PFB
2-Cyclohexyl-4,6-dinitrophenol-PFB (Dinex)	2,4,6-Trichlorophenol-PFB
2,4-Dichlorophenol-PFB	Pentachlorophenol-PFB
2-Methyl-4,6-dinitrophenol-PFB	Phenol-PFB

Phenols, PFB Derivatives - Mix B

M-8040B-R-PFB

M-8040B-R-PFB-PAK

0.2 mg/mL each in MeOH

1 x 1 mL
SAVE 5 x 1 mL
9 comps.

<i>o</i> -Chlorophenol-PFB	2,4-Dinitrophenol-PFB
<i>m</i> -Cresol-PFB	Dinoseb-PFB
<i>p</i> -Cresol-PFB	2,3,4,6-Tetrachlorophenol-PFB
2,6-Dichlorophenol-PFB	2,4,5-Trichlorophenol-PFB
2,4-Dimethylphenol-PFB	

Technical Note

2,4-Dinitrophenol, 4-Nitrophenol, and Pentachlorophenol are susceptible to adsorption on active surfaces found in injection ports or contaminated columns.

Surrogate Standard

M-8040-SS

M-8040-SS-PAK

2.0 mg/mL each in Isopropanol

1 x 1 mL
SAVE 5 x 1 mL
2 comps.

2-Fluorophenol	2,4,6-Tribromophenol
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Surrogate Standard, PFB Derivatives

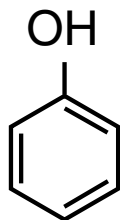
M-8040-SS-PFB

M-8040-SS-PFB-PAK

2.0 mg/mL each in MeOH

1 x 1 mL
SAVE 5 x 1 mL
2 comps.

2-Fluorophenol-PFB	2,4,6-Tribromophenol-PFB
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Method 8040A Phenols by GC/FID

Phenol Set

M-8040-SET

Each at 1.0 mg/mL in MeOH

19 x 1 mL

4-Chloro-3-cresol	Dinoseb
<i>o</i> -Chlorophenol	2-Methyl-4,6-dinitrophenol
<i>m</i> -Cresol	<i>o</i> -Nitrophenol
<i>o</i> -Cresol	<i>p</i> -Nitrophenol
<i>p</i> -Cresol	Pentachlorophenol
2-Cyclohexyl-4,6-dinitrophenol (Dinex)	Phenol
2,4-Dichlorophenol	2,3,4,6-Tetrachlorophenol
2,6-Dichlorophenol	2,4,5-Trichlorophenol
2,4-Dimethylphenol	2,4,6-Trichlorophenol
2,4-Dinitrophenol	

Phenols, Mix A

M-8040A-R

M-8040A-R-PAK

2.0 mg/mL each in Isopropanol

1 x 1 mL
SAVE 5 x 1 mL
10 comps.

4-Chloro-3-cresol	<i>o</i> -Nitrophenol
<i>o</i> -Cresol	<i>p</i> -Nitrophenol
2-Cyclohexyl-4,6-dinitrophenol (Dinex)	2,4,6-Trichlorophenol
2,4-Dichlorophenol	Pentachlorophenol
2-Methyl-4,6-dinitrophenol	Phenol

Phenols, Mix B

M-8040B-R

M-8040B-R-PAK

2.0 mg/mL each in Isopropanol

1 x 1 mL
SAVE 5 x 1 mL
9 comps.

<i>o</i> -Chlorophenol	2,4-Dinitrophenol
<i>m</i> -Cresol	Dinoseb
<i>p</i> -Cresol	2,3,4,6-Tetrachlorophenol
2,6-Dichlorophenol	2,4,5-Trichlorophenol
2,4-Dimethylphenol	

Phenols QC Check Standard

M-8040A-ASL

M-8040A-ASL-PAK

100 µg/mL each in Isopropanol

M-8040A-ASL-20X

2000 µg/mL each in Isopropanol

Alternate Source

1 x 1 mL
SAVE 1 x 1 mL
19 comps.

1 x 1 mL
19 comps.

Dinoseb	4,6-Dinitro- <i>o</i> -cresol
4-Chloro-3-methylphenol	2,4-Dinitrophenol
2-Chlorophenol	2-Nitrophenol
<i>o</i> -Cresol	4-Nitrophenol
<i>m</i> -Cresol	Pentachlorophenol
<i>p</i> -Cresol	Phenol
2-Cyclohexyl-4,6-dinitrophenol (Dinex)	2,3,4,6-Tetrachlorophenol
2,4-Dichlorophenol	2,4,5-Trichlorophenol
2,6-Dichlorophenol	2,4,6-Trichlorophenol
2,4-Dimethylphenol	

Phenols

Phenol Methods (continued)

RCRA Target Phenols Solution

M-8041

M-8041-PAK

1.0 mg/mL each in Isopropanol

4-Chloro-3-methylphenol
2-Chlorophenol
2-Cyclohexyl-4,6-dinitrophenol (Dinex)
2,4-Dichlorophenol
2,6-Dichlorophenol
2,4-Dimethylphenol
Dinoseb
2,4-Dinitrophenol
2-Methyl-4,6-dinitrophenol
o-Cresol
m-Cresol

p-Cresol
2-Nitrophenol
4-Nitrophenol
Pentachlorophenol
Phenol
2,3,4,5-Tetrachlorophenol
2,3,4,6-Tetrachlorophenol
2,3,5,6-Tetrachlorophenol
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol

1 x 1 mL
SAVE x 1 mL
21 comps.

Technical Note

The method analytes were formulated into two distinct solutions to meet the needs of laboratories analyzing only the RCRA analytes or the combined RCRA/non-RCRA analytes.

Non-RCRA Target Phenols Solution

M-8041-X1

M-8041-X1-PAK

1.0 mg/mL each in Isopropanol

2-Chloro-5-methylphenol
4-Chloro-2-methylphenol
3-Chlorophenol
4-Chlorophenol
2,3-Dichlorophenol
2,5-Dichlorophenol
3,4-Dichlorophenol
3,5-Dichlorophenol
2,3-Dimethylphenol

2,5-Dimethylphenol
2,6-Dimethylphenol
3,4-Dimethylphenol
2,5-Dinitrophenol
3-Nitrophenol
2,3,4-Trichlorophenol
2,3,5-Trichlorophenol
2,3,6-Trichlorophenol
3,4,5-Trichlorophenol

1 x 1 mL
SAVE 5 x 1 mL
18 comps.

Internal Standards

M-8041-IS

M-8041-IS-PAK

50 µg/mL each in Isopropanol

M-8041-IS-10X

M-8041-IS-10X-PAK

0.5 mg/mL each in Isopropanol

M-8041-IS-20X

M-8041-IS-20X-PAK

1.0 mg/mL each in Isopropanol

2,5-Dibromotoluene

2,2',5,5'-Tetrabromobiphenyl

1 x 1 mL
SAVE 5 x 1 mL

1 x 1 mL
SAVE 5 x 1 mL

1 x 1 mL
SAVE 5 x 1 mL
2 comps.

Surrogate Standards

M-8041-SS

M-8041-SS-PAK

1.6 µg/mL in Isopropanol

M-8041-SS-10X

M-8041-SS-10X-PAK

16 µg/mL in Isopropanol

M-8041-SS-100X

M-8041-SS-100X-PAK

160 µg/mL in Isopropanol

M-8041-SS-625X

M-8041-SS-625X-PAK

1.0 mg/mL in Isopropanol

2,4-Dibromophenol

1 x 1 mL
SAVE 5 x 1 mL

1 x 1 mL
SAVE 5 x 1 mL

1 x 1 mL
SAVE 5 x 1 mL

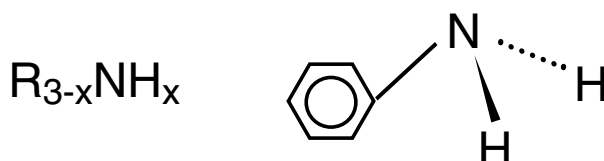
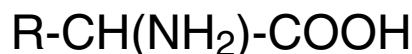
1 x 1 mL
SAVE 5 x 1 mL



Amines, Anilines and Aminos

Amines, Anilines and other Amino Compounds

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
2-Amino-4-nitrotoluene 99-55-8	100 µg/mL	AcCN	RAC-03	1 mL	2,4-Diaminotoluene 95-80-7	NEAT		R-078N	100 mg
p-Aminoazobenzene 60-09-3	1000 µg/mL	AcCN	RAC-03-10X	1 mL		100 µg/mL	Toluene	R-078S	1 mL
o-Aminoazotoluene 97-56-3	100 µg/mL	AcCN	RAC-21	1 mL		100 µg/mL	AcCN	RAC-10	1 mL
	1000 µg/mL	AcCN	RAC-21-10X	1 mL		1000 µg/mL	AcCN	RAC-10-10X	1 mL
2-Aminobiphenyl 90-41-5	100 µg/mL	AcCN	RAC-01	1 mL	2,6-Dibromo-4-nitroaniline 827-94-1	MeOH		AS-E0932	1 mL
	1 mg/mL	AcCN	RAC-01-10X	1 mL		NEAT		L-016N	100 mg
		NEAT	R-062N	10 mg	2,6-Dichloro-4-nitroaniline 99-30-9	NEAT		L-014N	100 mg
	100 µg/mL	Toluene	R-062S	1 mL	3,4-Dichloroaniline 95-76-1	NEAT		L-005N	100 mg
	100 µg/mL	AcCN	RAC-22	1 mL					
	1000 µg/mL	AcCN	RAC-22-10X	1 mL	3,3'-Dichlorobenzidine † 91-94-1	NEAT		R-075N	50 mg
4-Aminobiphenyl 92-67-1	100 µg/mL	Toluene	R-063S	1 mL		100 µg/mL	Toluene	R-075S	1 mL
	100 µg/mL	CH ₂ Cl ₂	APP-9-011	1 mL		100 µg/mL	MeOH	APP-9-067	1 mL
	100 µg/mL	AcCN	RAC-02	1 mL		1000 µg/mL	MeOH	AS-E0026	1 mL
	1000 µg/mL	AcCN	RAC-02-10X	1 mL		100 µg/mL	AcCN	RAC-11	1 mL
	1000 µg/mL	MeOH	AS-E0578	1 mL		1000 µg/mL	AcCN	RAC-11-10X	1 mL
Aniline 62-53-3		NEAT	L-001N	100 mg		2 mg/mL	MeOH	Z-014F-2	1 mL
	100 µg/mL	MeOH	APP-9-012	1 mL	3,3'-Dimethoxybenzidine † 119-90-4	NEAT		R-076N	50 mg
	1000 µg/mL	MeOH	APP-9-012-10X	1 mL		100 µg/mL	Toluene	R-076S	1 mL
	5 mg/mL	MeOH	AS-E0542	1 mL		100 µg/mL	AcCN	RAC-12	1 mL
Aniline-d₅ 4165-61-1	0.2 mg/mL	CH ₂ Cl ₂	M-625-01	1 mL		1000 µg/mL	AcCN	RAC-12-10X	1 mL
	2 mg/mL	CH ₂ Cl ₂	M-625-01-10X	1 mL	3,3'-Dimethyl-4,4'-diaminodiphenylmethane 838-88-0	100 µg/mL	AcCN	RAC-14	1 mL
o-Anisidine 90-04-0	100 µg/mL	AcCN	RAC-23	1 mL		100 µg/mL	CH ₂ Cl ₂	APP-9-083	1 mL
	1000 µg/mL	AcCN	RAC-23-10X	1 mL		1000 µg/mL	AcCN	RAC-14-10X	1 mL
Benzidine † 92-87-5		NEAT	R-073N	100 mg	4-Dimethylaminoazobenzene 60-11-7	NEAT		R-079N	10 mg
	100 µg/mL	Toluene	R-073S	1 mL		100 µg/mL	Toluene	R-079S	1 mL
	50 µg/mL	CH ₂ Cl ₂	M-625C-1	1 mL	2,6-Dimethylaniline 87-62-7	NEAT		L-018N	100 mg
	2 mg/mL	CH ₂ Cl ₂	M-625C-1-40X	1 mL		100 µg/mL	AcCN	L-018S-CN	1 mL
	100 µg/mL	AcCN	RAC-04	1 mL		100 µg/mL	CH ₂ Cl ₂	APP-9-085	1 mL
	1000 µg/mL	AcCN	RAC-04-10X	1 mL	3,3'-Dimethylbenzidine † 119-93-7	100 µg/mL	AcCN	RAC-13	1 mL
Benzidine (as dihydrochloride) † 92-87-5	1000 µg/mL	MeOH	AS-E0005	1 mL		1000 µg/mL	AcCN	RAC-13-10X	1 mL
2-Bromo-4,6-dinitroaniline 1817-73-8		NEAT	L-017N	100 mg		2 mg/mL	CH ₂ Cl ₂	APP-9-085-20X	1 mL
4-Bromoaniline 106-40-1		NEAT	L-007N	100 mg	a,a-Dimethylphenethylamine 122-09-8	100 µg/mL	CH ₂ Cl ₂	APP-9-086	1 mL
4-Chloro-2-nitroaniline 89-63-4		NEAT	L-013N	100 mg		2 mg/mL	CH ₂ Cl ₂	APP-9-086-20X	1 mL
2-Chloro-4,6-dinitroaniline 3531-19-9		NEAT	L-015N	100 mg	2,4-Dinitroaniline 97-02-9	NEAT		L-011N	100 mg
2-Chloro-4-nitroaniline 121-87-9		NEAT	L-012N	100 mg	Diphenylamine 122-39-4	NEAT		L-125N	100 mg
2-Chloroaniline 95-51-2		NEAT	L-002N	100 mg		100 µg/mL	CH ₂ Cl ₂	APP-9-097	1 mL
3-Chloroaniline 108-42-9		NEAT	L-003N	100 mg		1000 µg/mL	Acetone	APP-9-097-A-10X	1 mL
4-Chloroaniline 106-47-8		NEAT	L-004N	100 mg		1000 µg/mL	MeOH	M-620	1 mL
	100 µg/mL	AcCN	RAC-05	1 mL		5 mg/mL	MeOH	AS-E0263	1 mL
	1000 µg/mL	AcCN	RAC-05-10X	1 mL	Ethylenediamine 107-15-3	1000 µg/mL	MeOH	AS-E0358	1 mL
	100 µg/mL	MeOH	APP-9-038	1 mL	4-Fluoroaniline 371-40-4	0.2 mg/mL	CH ₂ Cl ₂	M-625-08	1 mL
	5 mg/mL	MeOH	AS-E0305	1 mL		2 mg/mL	CH ₂ Cl ₂	M-625-08-10X	1 mL
3-Chloro-o-toluidine 87-60-5	100 µg/mL	AcCN	RAC-24	1 mL	2-Methyl-4-nitroaniline 99-52-5	100 µg/mL	AcCN	M-8095-SS-02	1 mL
	1000 µg/mL	AcCN	RAC-24-10X	1 mL	Methylamine 74-89-5	2500 µg/mL	Water	M-1666A-DI-R-ADD1	1 mL
4-Chloro-o-toluidine 95-69-2	100 µg/mL	AcCN	RAC-06	1 mL	4,4'-Methylenebis(2-chloroaniline) 101-14-4		NEAT	R-080N	50 mg
	1000 µg/mL	AcCN	RAC-06-10X	1 mL		100 µg/mL	Toluene	R-080S	1 mL
p-Cresidine 120-71-8	100 µg/mL	AcCN	RAC-07	1 mL		100 µg/mL	AcCN	RAC-15	1 mL
	1000 µg/mL	AcCN	RAC-07-10X	1 mL		1000 µg/mL	AcCN	RAC-15-10X	1 mL
2,4-Diaminoisole sulfate hydrate 123333-56-2	100 µg/mL	Pyridine	RAC-08	1 mL		5 mg/mL	MeOH	AS-E0322	1 mL
	1000 µg/mL	Pyridine	RAC-08-10X	1 mL	2-Naphthylamine 91-59-8	100 µg/mL	AcCN	RAC-16	1 mL
3,3'-Diaminobenzidine † 91-95-2		NEAT	R-074N	50 mg		100 µg/mL	CH ₂ Cl ₂	APP-9-139	1 mL
	100 µg/mL	Toluene	R-074S	1 mL		1000 µg/mL	AcCN	RAC-16-10X	1 mL
4,4'-Diaminodiphenylmethane 101-77-9 (4,4'-Methylenedianiline)		NEAT	R-077N	100 mg		1000 µg/mL	MeOH	AS-E0565	1 mL
	100 µg/mL	Toluene	R-077S	1 mL					
	100 µg/mL	AcCN	RAC-09	1 mL					
	1000 µg/mL	AcCN	RAC-09-10X	1 mL					



† Subject to oxidation

Amines, Anilines, Aminos continued on
next page

Amines, Anilines and Aminos

Amines, Anilines and other Amino Compounds (continued)

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
2-Nitroaniline 88-74-4		NEAT	R-054N	100 mg	1-Nitrosopiperidine 100-75-4	5 mg/mL	MeOH	AS-E0458	1 mL
	100 µg/mL	Toluene	R-054S	1 mL	4,4'-Oxydianiline 101-80-4	100 µg/mL	AcCN	RAC-17	1 mL
	100 µg/mL	CH ₂ Cl ₂	APP-9-140	1 mL		1 mg/mL	AcCN	RAC-17-10X	1 mL
	5 mg/mL	MeOH	AS-E0324	1 mL		100 µg/mL	MeOH	APP-9-180	1 mL
3-Nitroaniline 99-09-2		NEAT	R-056N	100 mg	p-Phenylenediamine 106-50-3	1000 µg/mL	AcCN	AS-E0275	1 mL
	100 µg/mL	Toluene	R-055S	1 mL		2 mg/mL	MeOH	APP-9-180-20X	1 mL
	100 µg/mL	CH ₂ Cl ₂	APP-9-141	1 mL		1000 µg/mL	MeOH	AS-E0657	1 mL
		NEAT	R-056N	100 mg					
4-Nitroaniline 100-01-6	100 µg/mL	Toluene	R-056S	1 mL	1-Propanamine 107-10-8				
	100 µg/mL	CH ₂ Cl ₂	APP-9-142	1 mL	Pyridine 110-86-1	100 µg/mL	MeOH	APP-9-186-M	1 mL
	5 mg/mL	MeOH	AS-E0342	1 mL		2 mg/mL	MeOH	APP-9-186-M-20X	1 mL
	100 µg/mL	CH ₂ Cl ₂	APP-9-156	1 mL		5 mg/mL	MeOH	AS-E0271	1 mL
5-Nitro-o-toluidine 99-55-8	5 mg/mL	MeOH	AS-E0344	1 mL		10 mg/mL	Water	M-8015B-5031-26	1 mL
	100 µg/mL	CH ₂ Cl ₂	APP-9-148	1 mL	Pyridine-d₅ 7291-22-7	0.2 mg/mL	CH ₂ Cl ₂	M-625-15	1 mL
	2 mg/mL	CH ₂ Cl ₂	APP-9-148-20X	1 mL		2 mg/mL	CH ₂ Cl ₂	M-625-15-10X	1 mL
	5 mg/mL	MeOH	AS-E0334	1 mL		1000 µg/mL	AcCN	RAC-IS	1 mL
N-Nitrosodiethylamine 55-18-5	100 µg/mL	CH ₂ Cl ₂	APP-9-149	1 mL		1000 µg/mL	Ethyl acetate	RAC-IS-EA	1 mL
	1000 µg/mL	MeOH	APP-9-149-M-10X	1 mL	3,3',5,5'-Tetramethylbenzidine 54827-17-7	100 µg/mL	AcCN	RAC-18	1 mL
	5 mg/mL	MeOH	AS-E0059	1 mL		1000 µg/mL	AcCN	RAC-18-10X	1 mL
						100 µg/mL	MeOH	APP-9-199	1 mL
N-Nitrosodimethylamine 62-75-9	100 µg/mL	CH ₂ Cl ₂	APP-9-147	1 mL		2 mg/mL	MeOH	AS-E0503	1 mL
	2 mg/mL	CH ₂ Cl ₂	APP-9-147-20X	1 mL	4,4'-Thiodianiline 139-65-1	100 µg/mL	AcCN	RAC-19	1 mL
	0.5 mg/mL	Water	M-8015B-5031-20	1 mL		100 µg/mL	AcCN	RAC-19-10X	1 mL
						1000 µg/mL	AcCN	RAC-19-10X	1 mL
N-Nitrosodi-n-butylamine 924-16-3	100 µg/mL	CH ₂ Cl ₂	APP-9-151	1 mL		10 mg/mL	Water	M-8015B-5031-27	1 mL
	2.5 mg/mL	CH ₂ Cl ₂	APP-9-151-25X	1 mL	2,4,5-Trichloroaniline 636-30-6		NEAT	L-006N	100 mg
	5 mg/mL	MeOH	AS-E0061	1 mL					
						100 µg/mL	AcCN	RAC-20	1 mL
N-Nitrosodiphenylamine 86-30-6	100 µg/mL	CH ₂ Cl ₂	APP-9-150	1 mL		1000 µg/mL	AcCN	RAC-20-10X	1 mL
	1000 µg/mL	MeOH	APP-9-150-M-10X	1 mL	2,4,5-Trimethylaniline 137-17-7				
	5 mg/mL	MeOH	AS-E0060	1 mL					
N-Nitrosomethylethylamine 10595-95-6 (N-Nitroso-N-methyl ethylamine)	100 µg/mL	CH ₂ Cl ₂	APP-9-152	1 mL					
	1 mg/mL	MeOH	AS-E0974	1 mL					

Amine, Aniline and other Amino Sets

Aryl Amine Multi-Component Solutions

AE-00049-SET

10 µg/mL each in Ethyl acetate

AE-00049-R1

10 µg/mL each in Ethyl acetate

o-Aminoazotoluene
4-Aminobiphenyl
2-Amino-4-nitrotoluene
Benzidine †
4-Chloroaniline
4-Chloro-o-toluidine
p-Cresidine
4,4'-Diaminodiphenylmethane
2,4-Diaminotoluene
3,3'-Dichlorobenzidine †
3,3'-Dimethoxybenzidine †
3,3'-Dimethylbenzidine †

3,3'-Dimethyl-4,4'-diaminodiphenylmethane
4,4'-Methylenebis(2-chloroaniline)
2-Naphthylamine
4,4'-Oxydianiline
4,4'-Thiodianiline
o-Toluidine
2,4,5-Trimethylaniline
p-Aminoazobenzene
2-Aminobiphenyl
o-Anisidine
3-Chloro-o-toluidine

RAC-08

100 µg/mL each in Pyridine

2,4-Diaminoanisole

Note: 2,4-Diaminoanisole is introduced with the sulfate hydrate

2 x 1 mL

24 comps.

AE-00049-R1, RAC-08

1 x 1 mL

Amine, Aniline and Amino Methods

Method 605 Benzidines by HPLC

M-605-10X

M-605-10X-PAK

1.0 mg/mL each in MeOH

Benzidine †

3,3'-Dichlorobenzidine †

1 x 1 mL

SAVE 5 x 1 mL

2 comps.

Method 620 Diphenylamine by GC/NPD

Diphenylamine

M-620

1.0 mg/mL each in MeOH

Diphenylamine

1 x 1 mL

Method 607 Nitrosamines by GC/NPD

M-607

M-607-PAK

At stated conc. (mg/mL) in MeOH

N-Nitrosodimethylamine 0.2
N-Nitrosodiphenylamine 0.4

N-Nitrosodi-n-propylamine 0.2

† Subject to oxidation

1 x 1 mL

SAVE 5 x 1 mL

3 comps.

Amines, Anilines and Aminos

Amine, Aniline and Amino Methods (continued)

Method 1666A (Rev. July 1998) Volatile Organic Compounds Specific to the PMI by Isotope Dilution GC/MS

PMI Purgeable Analytes

M-1666A-R2-SET

5 x 1 mL

M-1666A-SSA-ADD, M-1666A-SSA-R2, M-1666A-SSB
M-1666A-SSC, M-1666A-LAB

M-1666A-SSA-ADD

1000 µg/mL in MeOH

1 x 1 mL

Isopropyl ether

PMI Stock Standard A

M-1666A-SSA-R2

At stated conc. (µg/mL) in Water

1 x 1 mL

7 comps.

<i>n</i> -Butanol	2500	Isopropanol	1000
<i>t</i> -Butanol	2500	4-Methyl-2-pentanone	1000
2-Furaldehyde	2500	<i>n</i> -Pentanol	2500
Isobutyraldehyde	2500		

PMI Stock Standard B

M-1666A-SSB

At stated conc. (µg/mL) in MeOH

1 x 1 mL

9 comps.

Cyclohexane	1000	Trifluoromethane	1000
<i>n</i> -Heptane	1000	<i>m</i> -Xylene	1000
<i>n</i> -Hexane	1000	<i>o</i> -Xylene	1000
Methyl formate	2500	<i>p</i> -Xylene	1000
Tetrahydrofuran	1000		

PMI Stock Standard C

M-1666A-SSC

1000 µg/mL each in MeOH

1 x 1 mL

4 comps.

Butyl acetate	Isopropyl acetate
Ethyl acetate	Pentyl acetate

PMI Labeled Stock Standard

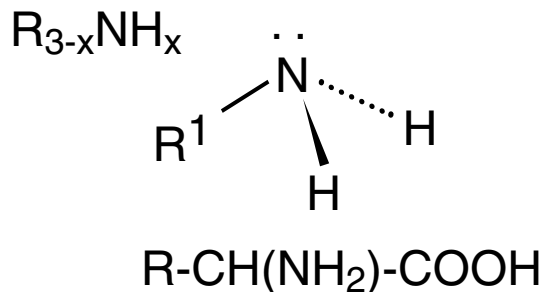
M-1666A-LAB

At stated conc. (µg/mL) in MeOH

1 x 1 mL

8 comps.

<i>t</i> -Butanol- <i>d</i> ₁₀	500	<i>n</i> -Hexane- <i>d</i> ₁₄	50
Cyclohexane- <i>d</i> ₁₂	50	Tetrahydrofuran- <i>d</i> ₈	50
Ethyl Acetate-2- ¹³ C	50	<i>o</i> -Xylene- <i>d</i> ₁₀	50
<i>n</i> -Heptane- <i>d</i> ₁₆	50	<i>m</i> -Xylene- <i>d</i> ₁₀	50



PMI Direct Injection Set

M-1666A-DI-R1-SET

4 x 1 mL

M-1666A-DI-R1, M-1666A-DI-R-ADD1
M-1666A-DI-R-ADD2, M-1666A-DI-LAB

PMI Standard Direct Injection

M-1666A-DI-R1

At stated conc. (µg/mL) in Water

1 x 1 mL

10 comps.

Acetonitrile	1000	Ethylene glycol	2500
Diethylamine	2500	Methanol	1000
Dimethylamine	1000	2-Methoxyethanol	1000
Dimethyl sulfoxide	1000	<i>n</i> -Propanol	1000
Ethanol	1000	Triethylamine	2500

M-1666A-DI-R-ADD1

2500 µg/mL in Water

1 x 1 mL

Methylamine

M-1666A-DI-R-ADD2

5000 µg/mL in Water

1 x 1 mL

Formamide

PMI Labeled Standard Direct Injection

M-1666A-DI-LAB

1000 µg/mL each in Water

1 x 1 mL

6 comps.

Acetonitrile- <i>d</i> ₃	Methanol- <i>d</i> ₃
Dimethyl sulfoxide- <i>d</i> ₆	<i>n</i> -Propanol-1- <i>d</i> ₁
Ethanol- <i>d</i> ₆	Tetrahydrofuran- <i>d</i> ₈

PMI Instrument Performance

Purgeable Internal Standard

CLP-PI

CLP-PI-PAK

1.0 mg/mL each in MeOH

1 x 1 mL

SAVE 5 x 1 mL

3 comps.

Bromochloromethane	1,4-Difluorobenzene
Chlorobenzene- <i>d</i> ₅	

PMI Resolution Standard

M-1666A-RES

M-1666A-RES-PAK

100 µg/mL each in MeOH

1 x 1 mL

SAVE 5 x 1 mL

2 comps.

<i>o</i> -Xylene	<i>o</i> -Xylene- <i>d</i> ₁₀
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Instrument Performance Check Solution

CLP-004-10X

CLP-004-10X-PAK

250 µg/mL in MeOH

1 x 1 mL

SAVE x 1 mL

p-Bromofluorobenzene

Amine, Aniline and Amino

Amine, Aniline and Amino Methods (continued)

Method 8015A (Rev 1, July 1992) Non-Halogenated Volatile Organics by GC/FID

Non-Halogenated Volatile Organics

M-8015A	1 x 1 mL
0.2 mg/mL each in MeOH	4 comps.
M-8015A-10X	1 x 1 mL
2.0 mg/mL each in MeOH	4 comps.
Diethyl ether	Methyl ethyl ketone
Ethanol	Methyl isobutyl ketone

M-8015-ASL	1 x 1 mL
100 µg/mL each in MeOH	12 comps.
Acetonitrile	Ethyl methacrylate
Acrylamide	Isobutanol
2-Butanone	Methacrylonitrile
Diethyl ether	Methyl methacrylate
1,4-Dioxane	4-Methyl-2-pentanone
Ethanol	Propionitrile

Internal Standard

M-8015B-IS-10X	1 x 1 mL
2.0 mg/mL each in Water	3 comps.
2-Chloroacrylonitrile	Hexafluoro-2-propanol
Hexafluoro-2-methyl-2-propanol	

Method 8015B Non-Halogenated Organics by GC/FID

M-8015B-5031-R-SET *	27 x 1 mL
Each at 10 mg-mL in Water	

Compound	Cat. No.	Unit
Acetone	M-8015B-5031-01	1 mL
Acetonitrile	M-8015B-5031-02	1 mL
Acrolein	M-8015B-5031-03	1 mL
Acrylonitrile	M-8015B-5031-04	1 mL
Allyl alcohol	M-8015B-5031-05	1 mL
n-Butanol	M-8015B-5031-06	1 mL
t-Butanol	M-8015B-5031-07	1 mL
Crotonaldehyde	M-8015B-5031-08	1 mL
Diethyl ether	M-8015B-5031-09	1 mL
p-Dioxane	M-8015B-5031-10	1 mL
Ethanol	M-8015B-5031-11	1 mL
Ethyl acetate	M-8015B-5031-12	1 mL
Ethylene glycol	M-8015B-5031-13	1 mL
Ethylene oxide (5.0 mg/mL)	M-8015B-5031-14-R1 *	1 mL
Isobutanol	M-8015B-5031-15	1 mL
Isopropanol	M-8015B-5031-16	1 mL
Methanol	M-8015B-5031-17	1 mL
Methyl ethyl ketone	M-8015B-5031-18	1 mL
Methyl isobutyl ketone	M-8015B-5031-19	1 mL
N-Nitrosodi-n-butylamine (0.5 mg/mL)	M-8015B-5031-20	1 mL
Paraldehyde	M-8015B-5031-21	1 mL
2-Pentanone	M-8015B-5031-22	1 mL
2-Picoline	M-8015B-5031-23	1 mL
n-Propanol	M-8015B-5031-24	1 mL
Propionitrile	M-8015B-5031-25	1 mL
Pyridine	M-8015B-5031-26	1 mL
o-Toluidine	M-8015B-5031-27	1 mL

Method 5031 GC/FID Internal Standards for Method 8015B/5031 Azeotropic Distillation

M-8260-5031-IS-FID	1 x 1 mL
5.0 mg/mL each in Water	3 comps.
2-Chloroacetonitrile	Hexafluoro-2-propanol
Hexafluoro-2-methyl-2-propanol	

Method 8325 Benzidines & Nitrogen containing Pesticides by L-L or L-S Extraction & RP HPLC/Particle Beam/MS

Performance Check Solution

M-553-PC	1 x 1 mL
0.1 mg/mL in AcCN	

DFTPPPO (Decafluorotriphenylphosphine oxide)	† Subject to oxidation
	* ColdPAK required to maintain integrity of product.

Method 8095 Explosives by GC/ECD

This method is a companion to EPA Method 8330 found later in this section. Utilizing the sensitivity and selectivity of the ECD as well as the resolution capabilities of capillary columns allows the chemist to quantitatively analyze for the typical explosives. The method uses familiar extraction techniques which reduce sample preparation time.

Explosive Stock Solution A

M-8095-SSA-100X	1 x 1 mL
M-8095-SSA-100X-PAK	SAVE 5 x 1 mL
100 µg/mL each in AcCN:MeOH (50:50)	10 comps.
2-Amino-4,6-dinitrotoluene	1,3,5-Trinitrobenzene
4-Amino-2,6-dinitrotoluene	TNT
1,3-Dinitrobenzene	RDX
2,6-Dinitrotoluene	Tetryl
2,4-Dinitrotoluene	HMX

Explosive Stock Solution B

M-8095-SSB-100X	1 x 1 mL
M-8095-SSB-100X-PAK	SAVE 5 x 1 mL
At stated conc. (µg/mL) in AcCN:MeOH (50:50)	7 comps.
Nitrobenzene	500
3-Nitrotoluene	500
2-Nitrotoluene	500
4-Nitrotoluene	500
Nitroglycerin	500
PETN	500
3,5-Dinitroaniline	100

Explosive Surrogate Standards

M-8095-SS-01	1 x 1 mL
M-8095-SS-01-PAK	SAVE 5 x 1 mL
100 µg/mL in AcCN	
3,4-Dinitrotoluene	

M-8095-SS-02	1 x 1 mL
M-8095-SS-02-PAK	SAVE 5 x 1 mL
100 µg/mL in AcCN	
2-Methyl-4-nitroaniline	

M-8095-SS-03	1 x 1 mL
M-8095-SS-03-PAK	SAVE 5 x 1 mL
100 µg/mL in AcCN	
2,5-Dinitrotoluene	

Method 8131 Aniline & Selected Derivatives by GC/NPD, GC/AFD, GC/TSO

Aniline & Selected Derivatives

M-8131	1 x 1 mL
1.0 mg/mL each in Toluene	19 comps.

Aniline	2,6-Dibromo-4-nitroaniline
4-Bromoaniline	3,4-Dichloroaniline
2-Bromo-6-chloro-4-nitroaniline	2,6-Dichloro-4-nitroaniline
2-Bromo-4,6-dinitroaniline	2,4-Dinitroaniline
2-Chloroaniline	2-Nitroaniline
3-Chloroaniline	3-Nitroaniline
4-Chloroaniline	4-Nitroaniline
2-Chloro-4,6-dinitroaniline	2,4,6-Trichloroaniline
2-Chloro-4-nitroaniline	2,4,5-Trichloroaniline
4-Chloro-2-nitroaniline	

Benzidine/Pesticide Mix

M-553 *	1 x 1 mL
At stated conc. (µg/mL) in AcCN:MeOH (50:50)	13 comps.

Benzidine †	250	3,3'-Dimethylbenzidine †	350
Benzoylprop ethyl	350	Diuron	450
Caffeine	300	Linuron	1,300
Carbaryl	1,000	Monuron	400
o-Chlorophenyl thiourea	750	Rotenone	3,200
3,3'-Dichlorobenzidine †	250	Siduron	450
3,3'-Dimethoxybenzidine †	750		

Ethers

Ether Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit	
bis(2-Chloroethyl)ether 111-44-4	100 µg/mL	MeOH	APP-9-027	1 mL	Dinoseb methyl ether 6099-79-2		NEAT	P-230N	10 mg	
	4 mg/mL	MeOH	APP-9-027-40X	1 mL		100 µg/mL	MeOH	P-230S	1 mL	
	5 mg/mL	MeOH	AS-E0016	1 mL		0.2 mg/mL	Hexane	M-8150-08	1 mL	
2-Chloroethylvinyl ether 110-75-8	2 mg/mL	MeOH	M-601C-10X	1 mL	p-Dioxane (1,4-Dioxane) 123-91-1	100 µg/mL	MeOH	APP-9-096	1 mL	
2,4-Dichlorophenyl- 3'-methyl-4'-nitrophenyl ether 42488-57-3	1000 µg/mL	Isooctane	E-020S	1 mL		1 mg/mL	MeOH	APP-9-096-10X	1 mL	
						10 mg/mL	MeOH	AS-E0480	1 mL	
Diethyl ether 60-29-7	10 mg/mL	Water	M-8015B-5031-09	1 mL		MtBE	0.2 mg/mL	MeOH	S-078	1 mL
						1634-04-4	2 mg/mL	MeOH	S-078-10X	1 mL
					TAME	0.2 mg/mL	MeOH	S-1019	1 mL	
					994-05-8					

Ether Methods

Method 8015A (Rev 1, July 1992) Non-Halogenated Volatile Organics by GC/FID

Non-Halogenated Volatile Organics

M-8015A 1 x 1 mL
0.2 mg/mL each in MeOH 4 comps.

M-8015A-10X 1 x 1 mL
2.0 mg/mL each in MeOH 4 comps.

Diethyl ether Methyl ethyl ketone
Ethanol Methyl isobutyl ketone

M-8015-ASL 1 x 1 mL
100 µg/mL each in MeOH 12 comps.

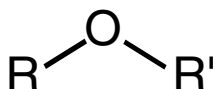
Alternate Source

Acetonitrile Ethyl methacrylate
Acrylamide Isobutanol
2-Butanone Methacrylonitrile
Diethyl ether Methyl methacrylate
1,4-Dioxane 4-Methyl-2-pentanone
Ethanol Propionitrile

Internal Standard

M-8015B-IS-10X 1 x 1 mL
2.0 mg/mL each in Water 3 comps.

2-Chloroacrylonitrile Hexafluoro-2-propanol
Hexafluoro-2-methyl-2-propanol



Method 8015B Non-Halogenated Organics by GC/FID

M-8015B-5031-R-SET * 27 x 1 mL

Each at 10 mg/mL in Water

Compound	Cat. No.	Unit
Acetone	M-8015B-5031-01	1 mL
Acetonitrile	M-8015B-5031-02	1 mL
Acrolein	M-8015B-5031-03	1 mL
Acrylonitrile	M-8015B-5031-04	1 mL
Allyl alcohol	M-8015B-5031-05	1 mL
n-Butanol	M-8015B-5031-06	1 mL
t-Butanol	M-8015B-5031-07	1 mL
Crotonaldehyde	M-8015B-5031-08	1 mL
Diethyl ether	M-8015B-5031-09	1 mL
p-Dioxane	M-8015B-5031-10	1 mL
Ethanol	M-8015B-5031-11	1 mL
Ethyl acetate	M-8015B-5031-12	1 mL
Ethylene glycol	M-8015B-5031-13	1 mL
Ethylene oxide (5.0 mg/mL)	M-8015B-5031-14-R1 *	1 mL
Isobutanol	M-8015B-5031-15	1 mL
Isopropanol	M-8015B-5031-16	1 mL
Methanol	M-8015B-5031-17	1 mL
Methyl ethyl ketone	M-8015B-5031-18	1 mL
Methyl isobutyl ketone	M-8015B-5031-19	1 mL
N-Nitrosodi-n-butylamine (0.5 mg/mL)	M-8015B-5031-20	1 mL
Paraldehyde	M-8015B-5031-21	1 mL
2-Pentanone	M-8015B-5031-22	1 mL
2-Picoline	M-8015B-5031-23	1 mL
n-Propanol	M-8015B-5031-24	1 mL
Propionitrile	M-8015B-5031-25	1 mL
Pyridine	M-8015B-5031-26	1 mL
o-Toluidine	M-8015B-5031-27	1 mL

Method 5031 GC/FID Internal Standards for Method 8015B/5031 Azeotropic Distillation

M-8260-5031-IS-FID 1 x 1 mL
5.0 mg/mL each in Water 3 comps.

2-Chloroacetonitrile Hexafluoro-2-propanol
Hexafluoro-2-methyl-2-propanol

* ColdPAK required to maintain integrity of product.

Haloethers

Haloether Analytes

Compound	Each in 1000 µg/mL in Isooctane	Cat. No.	Unit	Compound	Each in 1000 µg/mL in Isooctane	Cat. No.	Unit
2-Chlorophenyl-4'-nitrophenyl ether 2091-61-4		E-005S	1 mL	2,4-Dichlorophenyl-4'-nitrophenyl ether 1836-75-5		E-009S	1 mL
3-Chlorophenyl-4'-nitrophenyl ether 2303-23-3		E-006S	1 mL	3,4-Dichlorophenyl-4'-nitrophenyl ether 22532-80-5		E-013S	1 mL
4-Chlorophenyl-4'-nitrophenyl ether 1836-74-4		E-007S	1 mL	4-Nitrophenyl phenyl ether 620-88-2		E-003S	1 mL
2,4-Dichlorophenyl-3'-methyl-4'-nitrophenyl ether 42488-57-3		E-020S	1 mL	2,3,5-Trichlorophenyl-4'-nitrophenyl ether 142022-59-1		E-015S	1 mL
2,4-Dibromophenyl-4'-nitrophenyl ether 2671-93-4		E-004S	1 mL	2,3,6-Trichlorophenyl-4'-nitrophenyl ether 142022-58-0		E-016S	1 mL
2,3-Dichlorophenyl-4'-nitrophenyl ether 82239-20-1		E-008S	1 mL	2,3,4-Trichlorophenyl-4'-nitrophenyl ether 142022-61-5		E-014S	1 mL
2,5-Dichlorophenyl-4'-nitrophenyl ether 39145-48-7		E-010S	1 mL	2,4,5-Trichlorophenyl-4'-nitrophenyl ether 22532-68-9		E-017S	1 mL
2,6-Dichlorophenyl-4'-nitrophenyl ether 2093-28-9		E-011S	1 mL	2,4,6-Trichlorophenyl-4'-nitrophenyl ether 1836-77-7		E-018S	1 mL
3,5-Dichlorophenyl-4'-nitrophenyl ether 21105-77-1		E-012S	1 mL	3,4,5-Trichlorophenyl-4'-nitrophenyl ether		E-019S	1 mL

Haloether Methods

Method 8111 Haloethers Mix: non-RCRA Analytes

Haloethers Mix

M-8111-X1

1.0 mg/mL each in Isooctane

1 x 1 mL
19 comps.

4-Bromophenyl phenyl ether
2-Chlorophenyl-4'-nitrophenyl ether
3-Chlorophenyl-4'-nitrophenyl ether
4-Chlorophenyl-4'-nitrophenyl ether
2,4-Dibromophenyl-4'-nitrophenyl ether
2,4-Dichlorophenyl-3'-methyl-4'-nitrophenyl ether
2,6-Dichlorophenyl-4'-nitrophenyl ether
3,5-Dichlorophenyl-4'-nitrophenyl ether
2,5-Dichlorophenyl-4'-nitrophenyl ether
2,4-Dichlorophenyl-4'-nitrophenyl ether
2,3-Dichlorophenyl-4'-nitrophenyl ether
3,4-Dichlorophenyl-4'-nitrophenyl ether
4-Nitrophenyl phenyl ether
2,4,6-Trichlorophenyl-4'-nitrophenyl ether
2,3,6-Trichlorophenyl-4'-nitrophenyl ether
2,3,5-Trichlorophenyl-4'-nitrophenyl ether
2,4,5-Trichlorophenyl-4'-nitrophenyl ether
3,4,5-Trichlorophenyl-4'-nitrophenyl ether
2,3,4-Trichlorophenyl-4'-nitrophenyl ether

Haloethers Mix: RCRA Analytes

M-8111

M-8111-PAK

1.0 mg/mL each in Isooctane

1 x 1 mL
SAVE 5 x 1 mL
4 comps.

bis(2-Chloroethoxy)methane
bis(2-Chloroethyl)ether

bis(2-Chloroisopropyl)ether
4-Chlorophenyl phenyl ether

Internal Standard

M-8111-IS-20X

M-8111-IS-20X-PAK

1,000 µg/mL in Acetone

1 x 1 mL
SAVE 5 x 1 mL

4,4'-Dibromobiphenyl

Surrogate Standard

M-8111-SS-50X

1,000 µg/mL each in Acetone

1 x 1 mL
2 comps.

2,4-Dichlorophenyl phenyl ether

2,3,4-Trichlorophenyl phenyl ether

Halacetic Acids

Haloacetic Acids and Ester Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Bromoacetic acid	40 µg/mL	MtBE	M-552.2A-07	1 mL	Methyl bromodichloroacetate	40 µg/mL	MtBE	M-552.2-04	1 mL
79-08-3 (Monobromoacetic acid)	1000 µg/mL	MtBE	M-552A-1	1 mL	20428-76-6				
Bromochloroacetic acid	40 µg/mL	MtBE	M-552.2A-01	1 mL	Methyl chloroacetate	60 µg/mL	MtBE	M-552.2-05	1 mL
5589-96-8	1000 µg/mL	MtBE	M-552A-R-02	1 mL	96-34-4	300 µg/mL	MeOH	M-552.1-04	1 mL
Bromodichloroacetic acid	40 µg/mL	MtBE	M-552.2A-02	1 mL	Methyl chlorodibromoacetate	100 µg/mL	MtBE	M-552-R-04	1 mL
71133-14-7					20428-75-5			M-552.2-06	1 mL
Chloroacetic acid	60 µg/mL	MtBE	M-552.2A-08	1 mL	Methyl dibromoacetate	20 µg/mL	MtBE	M-552.2-07	1 mL
79-11-8 (Monochloroacetic acid)	1000 µg/mL	MtBE	M-552A-2	1 mL	6482-26-4	100 µg/mL	MeOH	M-552.1-05	1 mL
Chlorodibromoacetic acid	100 µg/mL	MtBE	M-552.2A-03	1 mL	Methyl dichloroacetate	60 µg/mL	MtBE	M-552.2-08	1 mL
5278-95-5					116-54-1	300 µg/mL	MeOH	M-552.1-06	1 mL
Dibromoacetic acid	20 µg/mL	MtBE	M-552.2A-05	1 mL	Methyl tribromoacetate	200 µg/mL	MtBE	M-552.2-09 *	1 mL
631-64-1	1000 µg/mL	MtBE	M-552A-5	1 mL	3222-05-7				
Dichloroacetic acid	60 µg/mL	MtBE	M-552.2A-06	1 mL	Methyl trichloroacetate	20 µg/mL	MtBE	M-552.2-10	1 mL
79-43-6	1000 µg/mL	MtBE	M-552A-3	1 mL	598-99-2	100 µg/mL	MeOH	M-552.1-07	1 mL
2,4-Dichlorophenylacetic acid	2 µg/mL	Acetone	M-1618-SA	1 mL	Tribromoacetic acid	200 µg/mL	MtBE	M-552.2A-09	1 mL
19719-28-9					75-96-7				
Methyl 2,4-dichlorophenylacetate	0.1 mg/mL	MtBE	M-515-SS	1 mL	Trichloroacetic acid	20 µg/mL	MtBE	M-552.2A-10	1 mL
55954-23-9	5 mg/mL	MtBE	M-515-SS-50X	1 mL	76-03-9	100 µg/mL	MtBE	M-552A-R-07	1 mL
Methyl bromoacetate	40 µg/mL	MtBE	M-552.2-02	1 mL					
96-32-2	200 µg/mL	MeOH	M-552.1-02	1 mL					
Methyl bromochloroacetate	40 µg/mL	MtBE	M-552.2-03	1 mL					
20428-74-4	200 µg/mL	MeOH	M-552.1-03	1 mL					
	1000 µg/mL	MtBE	M-552-R-03	1 mL					

* ColdPAK required to maintain integrity of product.

Haloacetic Acid Methods

DIN 38407-25 Selected Halo Acetic Acids

DIN38407-25

10 µg/mL in MtBE

1 x 1 mL
7 comps.

Bromochloroacetic acid	Dichloroacetic acid	Chloroacetic acid
Dalapon	Bromoacetic acid	Trichloroacetic acid
Dibromoacetic acid		

Performance Check Solution

M-515-QC

M-515-QC-PAK

At stated conc. (ng/mL) in MtBE

1 x 1 mL

SAVE 5 x 1 mL

3 comps.

Methyl 3,5-dichlorobenzoate	600
Dinoseb methyl ether	4
4-Nitroanisole	1600

Method 515.1 Chlorinated Acids in Water by GC/ECD

Methyl Derivatives

M-515-R

M-515-R-PAK

1.0 mg/mL each in MtBE

1 x 1 mL
SAVE 5 x 1 mL
16 comps.

Acifluorfen methyl ester	Methyl 3,5-dichlorobenzoate
Bentazon methyl ester	Dichlorprop methyl ester
Chloramben methyl ester	Dinoseb methyl ester
2,4-D methyl ester	4-Nitroanisole
Dalapon methyl ester	Pentachloroanisole
2,4-DB methyl ester	Picloram methyl ester
DCPA methyl ester	2,4,5-T methyl ester
Dicamba methyl ester	2,4,5-TP methyl ester

Performance Check Solution with ISTD & SS

M-515-QC-R

M-515-QC-R-PAK

At stated conc. (ng/mL) in MtBE

1 x 1 mL

SAVE 5 x 1 mL

5 comps.

4,4'-Dibromooctafluorobiphenyl (Internal Standard)	250
Methyl 3,5-dichlorobenzoate	600
Methyl 2,4-dichlorophenylacetate (Surrogate Standard)	500
Dinoseb methyl ether	4
4-Nitroanisole	1600

Internal Standard

M-515-IS

M-515-IS-PAK

0.1 mg/mL in MtBE

1 x 1 mL

SAVE 5 x 1 mL

4,4'-Dibromooctafluorobiphenyl

Underivatized Analytes

M-515A-R2

M-515A-R2-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL
SAVE 5 x 1 mL
16 comps.

Acifluorfen	100	3,5-Dichlorobenzoic acid	100
Bentazon	200	Dichlorprop	300
Chloramben	100	Dinoseb	200
2,4-D	200	4-Nitrophenol	100
Dalapon	1300	Pentachlorophenol	100
2,4-DB	800	Picloram	100
DCPA Diacid	100	2,4,5-T	100
Dicamba	100	2,4,5-TP	100

Technical Note

If you require the complete absence of partial esterification, we recommend M-515.4A and M-515.3A products.

Surrogate Standards

M-515-SS

M-515-SS-PAK

0.1 mg/mL in MtBE

1 x 1 mL

SAVE 5 x 1 mL

M-515-SS-50X

5.0 mg/mL in MtBE

1 x 1 mL

Methyl 2,4-dichlorophenylacetate

P-244S

0.1 mg/mL in MeOH

1 x 1 mL

2,4-Dichlorophenylacetic acid

Halacetic Acids

Haloacetic Acid Methods (continued)

Method 515.2 Chlorinated Acids in Water by GC/ECD

Methyl Derivatives

M-515.2-1

M-515.2-1-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL

SAVE 5 x 1 mL

6 comps.

Dacthal	100	Dinoseb methyl ester	200
Methyl 3,5-dichlorobenzoate	500	Pentachloroanisole	100
Dichlorprop methyl ester	100	2,4,5-T methyl ester	100

M-515.2-2

M-515.2-2-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL

SAVE 5 x 1 mL

7 comps.

Acifluorfen methyl ester	200	Dicamba methyl ester	300
Bentazon methyl ester	1000	Picloram methyl ester	300
2,4-D methyl ester	100	2,4,5-TP methyl ester	100
2,4-DB methyl ester	1000		

Underivatized Analytes

M-515.2A-1

M-515.2A-1-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL

SAVE 5 x 1 mL

6 comps.

DCPA Diacid	100	Dinoseb	200
3,5-Dichlorobenzoic acid	500	Pentachlorophenol	100
Dichlorprop	100	2,4,5-T	100

M-515.2A-2

M-515.2A-2-PAK

At stated conc. (µg/mL) in MeOH

1 x 1 mL

SAVE 5 x 1 mL

7 comps.

Acifluorfen	200	Dicamba	300
Bentazon	1000	Picloram	300
2,4-D	100	2,4,5-TP	100
2,4-DB	1000		

Method 515.1 & 515.2 Chlorinated Acids in Water by GC/ECD

Laboratory Performance Check Solution

M-8150-51-LPC-5ML

At stated conc. (ng/mL) in Isooctane

1 x 5 mL

5 comps.

3,5-Dichlorobenzoic acid	618	DCAA	500
Dinoseb	4	DBOB	250
4-Nitrophenol	1600		

Method 515.3 Chlorinated Acids in Drinking Water by ECD

Underivatized Acids

M-515.3A

M-515.3A-PAK

At stated conc. (µg/mL) in Acetone

1 x 1 mL

SAVE 5 x 1 mL

17 comps.

Acifluorfen	50	3,5-Dichlorobenzoic acid	50
Bentazon	100	Dichlorprop	100
Chloramben	50	Dinoseb	100
2,4-D	100	4-Nitrophenol	100
Dalapon	100	Pentachlorophenol	10
2,4-DB	100	Picloram	100
DCPA diacid	50	2,4,5-T	25
DCPA monoacid	50	Silvex	25
Dicamba	50		

Laboratory Performance Check

Methyl Derivatives

M-515.3-LPC

M-515.3-LPC-PAK

At stated conc. (µg/mL) in MtBE

1 x 1 mL

SAVE 5 x 1 mL

4 comps.

2,4-DB methyl ester	25	Chloramben methyl ester	12.5
Dinoseb methyl ether	25	4-Nitroanisole	25

Independent Check Standard Methyl Derivatives

M-515.3-ICS

M-515.3-ICS-PAK

At stated conc. (µg/mL) in MtBE

1 x 1 mL

SAVE 5 x 1 mL

16 comps.

Acifluorfen methyl ester	50	Methyl-3,5-Dichlorobenzoate	50
Bentazon methyl ester	100	Dichlorprop methyl ester	100
Chloramben methyl ester	50	Dinoseb methyl ether	100
2,4-D methyl ester	100	4-Nitroanisole	100
Dalapon methyl ester	100	Pentachloroanisole	10
2,4-DB methyl ester	100	Picloram methyl ester	100
Dacthal	100	2,4,5-T methyl ester	25
Dicamba methyl ester	50	Silvex methyl ester	25

Internal Standard

M-515-IS

M-515-IS-PAK

0.1 mg/mL in MtBE

1 x 1 mL

SAVE 5 x 1 mL

4,4'-Dibromooctafluorobiphenyl

Method 515.4 Chlorinated Acids in Drinking Water by ECD

Underivatized Acids

M-515.4A

M-515.4A-PAK

At stated conc. (µg/mL) in Acetone

1 x 1 mL

SAVE 5 x 1 mL

17 comps.

Acifluorfen	50	3,5-Dichlorobenzoic acid	50
Bentazon	100	Dichlorprop	100
Chloramben	50	Dinoseb	100
2,4-D	100	Pentachlorophenol	10
Dalapon	100	Picloram	50
2,4-DB	100	2,4,5-T	25
DCPA diacid	50	Silvex	25
DCPA monoacid	50	Quinclorac	50
Dicamba	50		

Underivatized Surrogate

M-8150B-SS

M-8150B-SS-PAK

0.1 mg/mL in Acetone

1 x 1 mL

SAVE 5 x 1 mL

2,4-Dichlorophenylacetic acid

Quality Control Sample Methyl Derivatives

M-515.4-QCS

M-515.4-QCS-PAK

At stated conc. (µg/mL) in MtBE

1 x 1 mL

SAVE 5 x 1 mL

16 comps.

Acifluorfen methyl ester	50	Methyl-3,5-Dichlorobenzoate	50
Bentazon methyl	100	Dichlorprop methyl ester	100
Chloramben methyl ester	50	Dinoseb methyl ether	100
2,4-D methyl ester	100	Pentachloroanisole	10
Dalapon methyl ester	100	Picloram methyl ester	50
2,4-DB methyl ester	100	2,4,5-T methyl ester	25
Dacthal	100	Silvex methyl ester	25
Dicamba methyl ester	50	Quinclorac methyl ester	50

Technical Note

M-515.3A and M-515.4A are to be used as procedural standards for the calibration of the method. These standards should be carried through the entire extraction and derivatization procedure associated with the samples.

Halacetic Acids

Haloacetic Acid Methods (continued)

Method 552 Haloacetic Acids by ECD

Methyl Derivatives

M-552-R 1 x 1 mL
1.0 mg/mL each in MtBE 8 comps.

M-552-R-SET 8 x 1 mL
Each at 1.0 mg/mL in MtBE

	Cat. No.	Unit
2,4-Dichloroanisole	M-552-R-01	1 mL
Methyl bromoacetate	M-552-R-02	1 mL
Methyl bromochloroacetate	M-552-R-03	1 mL
Methyl chloroacetate	M-552-R-04	1 mL
Methyl dibromoacetate	M-552-R-05	1 mL
Methyl dichloroacetate	M-552-R-06	1 mL
Methyl trichloroacetate	M-552-R-07	1 mL
2,4,6-Trichloroanisole	M-552-R-08	1 mL

Underivatized Analytes

M-552A-R 1 x 1 mL
1.0 mg/mL each in MtBE 8 comps.

M-552A-R-SET 8 x 1 mL
Each at 1.0 mg/mL in MtBE

	Cat. No.	Unit
Bromoacetic acid	M-552A-R-01	1 mL
Bromochloroacetic acid	M-552A-R-02	1 mL
Chloroacetic acid	M-552A-R-03	1 mL
Dibromoacetic acid	M-552A-R-04	1 mL
Dichloroacetic acid	M-552A-R-05	1 mL
2,4-Dichlorophenol	M-552A-R-06	1 mL
Trichloroacetic acid	M-552A-R-07	1 mL
2,4,6-Trichlorophenol	M-552A-R-08	1 mL

Internal Standards

APP-9-208-10X 1 x 1 mL
APP-9-208-10X-PAK SAVE 5 x 1 mL
1.0 mg/mL in MeOH
1,2,3-Trichloropropane

M-552-IS 1 x 1 mL
M-552-IS-PAK SAVE x 1 mL
5.0 mg/mL in MeOH
1,2-Dibromopropane

Surrogate Standards as Acids & Methyl esters

P-242S-10X 1 x 1 mL
P-242S-10X-PAK SAVE 5 x 1 mL
1.0 mg/mL in MeOH
3,5-Dichlorobenzoic acid

P-247S-10X 1 x 1 mL
P-247S-10X-PAK SAVE 5 x 1 mL
1.0 mg/mL in MeOH
Methyl 3,5-dichlorobenzoate

M-552-SS 1 x 1 mL
M-552-SS-PAK SAVE 5 x 1 mL
20 mg/mL in MtBE
2,3-Dibromopropionic acid

M-552-SS-ME 1 x 1 mL
M-552-SS-ME-PAK SAVE 5 x 1 mL
20 mg/mL in MtBE
Methyl 2,3-dibromopropionate

Method 552.1 Haloacetic Acids by ECD

Methyl Derivatives

M-552.1 1 x 1 mL
At stated conc. (µg/mL) in MeOH 7 comps.

M-552.1-SET 7 x 1 mL
Each at stated conc. (µg/mL) in MeOH

	Conc.	Cat. No.	Unit
Dalapon methyl ester	200	M-552.1-01	1 mL
Methyl bromoacetate	200	M-552.1-02	1 mL
Methyl bromochloroacetate	200	M-552.1-03	1 mL
Methyl chloroacetate	300	M-552.1-04	1 mL
Methyl dibromoacetate	100	M-552.1-05	1 mL
Methyl dichloroacetate	300	M-552.1-06	1 mL
Methyl trichloroacetate	100	M-552.1-07	1 mL

Underivatized Analytes

M-552.1A 1 x 1 mL
At stated conc. (µg/mL) in MeOH 7 comps.

M-552.1A-SET 7 x 1 mL
Each at stated conc. (µg/mL) in MeOH

Dalapon	200	Dibromoacetic acid	100
Bromoacetic acid	200	Dichloroacetic acid	300
Bromochloroacetic acid	200	Trichloroacetic acid	100
Chloroacetic acid	300		

Internal Standard

M-552.1-IS 1 x 1 mL
M-552.1-IS-PAK SAVE 5 x 1 mL
1.0 mg/mL in MtBE
1,2,3-Trichloropropane

Surrogate Standards

M-552.1-SS 1 x 1 mL
M-552.1-SS-PAK SAVE 5 x 1 mL
1.0 mg/mL in MtBE
2-Bromopropanoic acid

M-552.1-SS-ME 1 x 1 mL
M-552.1-SS-ME-PAK SAVE 5 x 1 mL
1.0 mg/mL in MtBE
Methyl 2-bromopropionate

Halacetic Acids

Haloacetic Acid Methods (continued)

Method 552.2 Haloacetic Acids & Dalapon in Drinking Water by L-L extraction, Derivatization & GC by ECD

These convenient sets of 10 individual ampules for Method 552.2, each containing a single analyte or its methyl derivative, were formulated with both the acids and their methyl derivatives and with and without the surrogate.

Methyl Derivatives

Haloacetic Acid Methyl Derivatives without Surrogates

M-552.2-R1	1 x 1 mL
At stated conc. (µg/mL) in MtBE	10 comps.
M-552.3-R1	1 x 1 mL
100 µg/mL each in MtBE	10 comps.
M-552.2-SET *	10 x 1 mL
Each at stated conc. (µg/mL) in MtBE	

	Conc.	Cat. No.	Unit
Dalapon methyl ester	40	M-552.2-01	1 mL
Methyl bromoacetate	40	M-552.2-02	1 mL
Methyl bromochloroacetate	40	M-552.2-03	1 mL
Methyl bromodichloroacetate	40	M-552.2-04	1 mL
Methyl chloroacetate	60	M-552.2-05	1 mL
Methyl chlorodibromoacetate	100	M-552.2-06	1 mL
Methyl dibromoacetate	20	M-552.2-07	1 mL
Methyl dichloroacetate	60	M-552.2-08	1 mL
Methyl tribromoacetate	200	M-552.2-09 *	1 mL
Methyl trichloroacetate	20	M-552.2-10	1 mL

Haloacetic Acid Methyl Derivatives with Surrogate (Methyl-2,3-dibromopropionate)

M-552.2		1 x 1 mL	
At stated conc. (µg/mL) in MtBE		11 comps.	
M-552.3		1 x 1 mL	
100 µg/mL each in MtBE		11 comps.	
Dalapon methyl ester	40	Methyl dibromoacetate	20
Methyl bromoacetate	40	Methyl dichloroacetate	60
Methyl bromochloroacetate	40	Methyl tribromoacetate	200
Methyl bromodichloroacetate	40	Methyl trichloroacetate	20
Methyl chloroacetate	60	Methyl 2,3-dibromopropionate	100
Methyl chlorodibromoacetate	100	(Surrogate)	

Surrogate Standard - Haloacetic Acid Methyl Derivative

M-552.2-SS-ME	1 x 1 mL
1000 µg/mL in MtBE	
Methyl 2,3-dibromopropionate	

Laboratory Performance Check Solution

M-552.2-LPC	1 x 1 mL
M-552.2-LPC-PAK	SAVE 5 x 1 mL
At stated conc. (µg/mL) in MtBE	4 comps.
Methyl bromochloroacetate	4
Methyl chloroacetate	6
Methyl chlorodibromoacetate	10
Methyl 2,3-dibromopropionate	10

Working Level

M-552.2-LPC-WL-25ML	1 x 25 mL
M-552.2-LPC-WL-50ML	1 x 50 mL
At stated conc. (ng/mL) in MtBE	4 comps.
Methyl bromochloroacetate	4
Methyl chloroacetate	6
Methyl chlorodibromoacetate	10
Methyl 2,3-dibromopropionate	10

Haloacetic Acids

Haloacetic Acid without Surrogate

M-552.2A-R1	1 x 1 mL
At stated conc. (µg/mL) in MtBE	10 comps.
M-552.3A-R1	1 x 1 mL
100 µg/mL each in MtBE	10 comps.
M-552.2A-SET	10 x 1 mL
Each at stated conc. (µg/mL) in MtBE	

	Conc.	Cat. No.	Unit
Dalapon acid	40	M-552.2A-04	1 mL
Monobromoacetic acid	40	M-552.2A-07	1 mL
Bromochloroacetic acid	40	M-552.2A-01	1 mL
Bromodichloroacetic acid	40	M-552.2A-02	1 mL
Monochloroacetic acid	60	M-552.2A-08	1 mL
Chlorodibromoacetic acid	100	M-552.2A-03	1 mL
Dibromoacetic acid	20	M-552.2A-05	1 mL
Dichloroacetic acid	60	M-552.2A-06	1 mL
Tribromoacetic acid	200	M-552.2A-09	1 mL
Trichloroacetic acid	20	M-552.2A-10	1 mL

Haloacetic Acid Mix with Surrogate (2,3-Dibromopropionic acid)

M-552.2A		1 x 1 mL	
<i>At stated conc. (µg/mL) in MtBE</i>		11 comps.	
Dalapon acid	40	Dibromoacetic acid	20
Monobromoacetic acid	40	Dichloroacetic acid	60
Bromochloroacetic acid	40	Tribromoacetic acid	200
Bromodichloroacetic acid	40	Trichloroacetic acid	20
Monochloroacetic acid.	60	2,3-Dibromopropionic acid	100
Chlorodibromoacetic acid	100	(Surrogate)	

Surrogate Standards - Haloacetic Acid

M-552.2-SS	1 x 1 mL
1000 µg/mL in MtBE	
2,3-Dibromopropionic acid	
M-552.2-SS2	1 x 1 mL
10 mg/mL in MtBE	
2-Bromobutanoic acid	

Internal Standard

M-552.2-IS	1 x 1 mL
1000 µg/mL in MtBE	
1,2,3-Trichloropropane	

* ColdPAK required to maintain integrity of product.

Phthalates

The Consumer Products Safety Commission (CPSC) has proposed banning the use of several phthalates in materials for children's toys. In 2008 a congressional edict banned dibutyl, n-butyl benzyl and di-2-ethylhexyl (DEHP) phthalates as potential health risks.

Listed in 4 groups, Phthalates, Monophthalates, Deuterated Phthalates, Technical Mixtures and Phthalate Replacements

Phthalate Analytes									
Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Benzyl butyl phthalate 85-68-7		NEAT	ALR-082N	100 mg	Monophthalates				
	100 µg/mL	MeOH	ALR-082S	1 mL	Monobenzyl phthalate (mBzP)		NEAT	ALR-134N	100 mg
	5 mg/mL	MeOH	AS-E0065	1 mL	2528-16-7	100 µg/mL	AcCN	ALR-134S-CN	1 mL
bis(2-n-Butoxyethyl)phthalate 117-83-9		NEAT	J-112	100 mg	Monobutyl phthalate (mBP)		NEAT	ALR-135N	100 mg
bis(2-Ethoxyethyl)phthalate 605-54-9		NEAT	J-111	100 mg	131-70-4	100 µg/mL	AcCN	ALR-135S-CN	1 mL
bis(2-Ethylhexyl)phthalate 117-81-7		NEAT	ALR-097N	100 mg	Monocyclohexyl phthalate		NEAT	ALR-178N	100 mg
	100 µg/mL	MeOH	ALR-097S	1 mL	7517-36-4	100 µg/mL	AcCN	ALR-178S-CN	1 mL
	1000 µg/mL	MeOH	APP-9-029-10X	1 mL	Monoethyl phthalate (mEP)		NEAT	ALR-137N	100 mg
bis(2-Methoxyethyl)phthalate 117-82-8		NEAT	J-106	100 mg	2306-33-4	100 µg/mL	AcCN	ALR-137S-CN	1 mL
bis(4-Methylpentyl)phthalate 71850-09-4		NEAT	PHTH-022N	100 mg	Monoethylhexyl phthalate (mEHP)		NEAT	ALR-138N	100 mg
	100 µg/mL	MeOH	PHTH-022S	1 mL	4376-20-9	100 µg/mL	AcCN	ALR-138S-CN	1 mL
bis(4-Methyl-2-pentyl)phthalate 146-50-9		NEAT	J-109-10MG	10 mg	Mono-2-heptyl phthalate		NEAT	ALR-143N	100 mg
		NEAT	J-109	100 mg		100 µg/mL	AcCN	ALR-143S-CN	1 mL
2-Butoxy-2-oxoethyl butyl phthalate 85-70-1		NEAT	J-115	100 mg	Monoethyl phthalate		NEAT	ALR-175N	100 mg
Diallyl phthalate 131-17-9		NEAT	J-002	100 mg	24539-57-9	100 µg/mL	AcCN	ALR-175S-CN	1 mL
Diamyl phthalate 131-18-0		NEAT	ALR-098N	100 mg	Monoisobutyl phthalate		NEAT	ALR-176N	100 mg
	100 µg/mL	MeOH	ALR-098S	1 mL	30833-53-5	100 µg/mL	AcCN	ALR-176S-CN	1 mL
Dibenzyl phthalate 523-31-9		NEAT	J-104	100 mg	Monoisononyl phthalate		NEAT	ALR-142N	100 mg
Dibutyl phthalate 84-74-2		NEAT	J-003	100 mg	Mixture of C9 Isomers	100 µg/mL	AcCN	ALR-142S-CN	1 mL
	100 µg/mL	MeOH	APP-9-063	1 mL	Monoisopropyl phthalate		NEAT	ALR-179N	100 mg
	1000 µg/mL	MeOH	APP-9-063-10X	1 mL	35118-50-4	100 µg/mL	AcCN	ALR-179S-CN	1 mL
	5 mg/mL	MeOH	AS-E0066	1 mL	Monomethyl phthalate		NEAT	ALR-139N	100 mg
Dicyclohexyl phthalate 84-61-7		NEAT	J-004	100 mg	4376-18-5	100 µg/mL	AcCN	ALR-139S-CN	1 mL
	100 µg/mL	MeOH	ALR-099S	1 mL	Monoethyl phthalate		NEAT	ALR-141N	100 mg
	1000 µg/mL	AcCN	AS-E0318	1 mL	5393-19-1	100 µg/mL	AcCN	ALR-141S-CN	1 mL
Didodecyl phthalate 2432-90-8		NEAT	PHTH-018N	100 mg	Mono-n-pentyl phthalate		NEAT	ALR-177N	100 mg
	100 µg/mL	MeOH	PHTH-018S	1 mL	24539-56-8	100 µg/mL	AcCN	ALR-177S-CN	1 mL
Diethyl phthalate 84-66-2		NEAT	J-005	100 mg	Deuterated Phthalates				
	100 µg/mL	MeOH	APP-9-081	1 mL	Dibenzylphthalate-d ₄		NEAT	PHTH-D4-001N	5 mg
	1000 µg/mL	MeOH	APP-9-081-10X	1 mL	1015854-62-2	100 µg/mL	MeOH	PHTH-D4-001S	1 mL
	5 mg/mL	MeOH	AS-E0068	1 mL	Dicyclohexyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-004N	5 mg
Diethyl phthalate 84-66-2		NEAT	ALR-100N	100 mg	358731-25-6	100 µg/mL	MeOH	PHTH-D4-004S	1 mL
	100 µg/mL	MeOH	ALR-100S	1 mL	Diethyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-005N	5 mg
Diisobutyl phthalate 84-69-5		NEAT	J-113	100 mg	93952-12-6	100 µg/mL	MeOH	PHTH-D4-005S	1 mL
Diisopentyl phthalate 605-50-5 (Diisoamyl phthalate)		NEAT	J-127	100 mg	Diisobutyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-003N	5 mg
Diisopropyl phthalate 605-45-8		NEAT	PHTH-019N	100 mg	358730-88-8	100 µg/mL	MeOH	PHTH-D4-003S	1 mL
	100 µg/mL	MeOH	PHTH-019S	1 mL	Dimethyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-007N	5 mg
Dimethyl phthalate 131-11-3		NEAT	J-010	100 mg	93951-89-4	100 µg/mL	MeOH	PHTH-D4-007S	1 mL
	100 µg/mL	MeOH	APP-9-088	1 mL	Di-n-butyl phthalate-d ₄		NEAT	PHTH-D4-002N	5 mg
	1000 µg/mL	MeOH	APP-9-088-10X	1 mL	93952-11-5	100 µg/mL	MeOH	PHTH-D4-002S	1 mL
	0.1 mg/mL	EtOAc	M-8032-IS	1 mL	Di-n-hexyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-006N	5 mg
	5 mg/mL	MeOH	AS-E0069	1 mL	1015854-55-3	100 µg/mL	MeOH	PHTH-D4-006S	1 mL
Di-n-heptyl phthalate 3648-21-3		NEAT	PHTH-020N	100 mg	Di-n-octyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-008N	5 mg
	100 µg/mL	MeOH	PHTH-020S	1 mL	93952-13-7	100 µg/mL	MeOH	PHTH-D4-008S	1 mL
Di-n-octyl phthalate 117-84-0		NEAT	J-011	100 mg	Di-n-pentyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-009N	5 mg
	100 µg/mL	MeOH	APP-9-095	1 mL	358730-89-9	100 µg/mL	MeOH	PHTH-D4-009S	1 mL
	5 mg/mL	MeOH	AS-E0067	1 mL	Di-n-propyl phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-010N	5 mg
Diphenyl phthalate 84-62-8		NEAT	J-013	100 mg	358731-29-0	100 µg/mL	MeOH	PHTH-D4-010S	1 mL
Diundecyl phthalate 3648-20-2		NEAT	PHTH-021N	100 mg	bis(2-Ethylhexyl)phthalate-3,4,5,6-d ₄		NEAT	PHTH-D4-011N	5 mg
	100 µg/mL	MeOH	PHTH-021S	1 mL	93951-87-2	100 µg/mL	MeOH	PHTH-D4-011S	1 mL
Isophthalates					Set includes above 11 Deuterated Phthalates				
Dimethyl isophthalate 1459-93-4		NEAT	J-009	100 mg		NEAT	PHTH-D4N-SET		11 x 5 mg
Diphenyl isophthalate 744-45-6		NEAT	J-012	100 mg	SOLUTION		PHTH-D4S-SET		11 x 1 mL
Terephthalates					Phthalates - Tech Mixes				
bis(2-Ethylhexyl) terephthalate 6422-86-2		NEAT	J-121	100 mg	Benzyl 2-ethylhexyl phthalate		NEAT	ALR-165N	100 mg
Diethyl terephthalate 636-09-9		NEAT	J-123	100 mg	27215-22-1	100 µg/mL	MeOH	ALR-165S	1 mL
Dimethyl terephthalate 120-61-6		NEAT	J-101	100 mg	n-Butyl benzyl phthalate		NEAT	PHTH-014N	10 mg
					85-68-7	100 µg/mL	MeOH	PHTH-014S	1 mL
					Butyl cyclohexyl phthalate		NEAT	J-122	100 mg
					84-64-0				
					n-Butyl iso-butyl phthalate		NEAT	PHTH-013N	10 mg
						100 µg/mL	MeOH	PHTH-013S	1 mL
					Butyl octyl phthalate		NEAT	J-001	100 mg
					84-78-5				
					Decyl octyl phthalate		NEAT	PHTH-012N	10 mg
						100 µg/mL	MeOH	PHTH-012S	1 mL
					Didecyl phthalate		NEAT	J-120	100 mg
					84-77-5				
					Diisodecyl phthalate		NEAT	ALR-101N	100 mg
					26761-40-0	100 µg/mL	MeOH	ALR-101S	1 mL

Phthalates

Phthalate Analytes (continued)

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Diisooheptyl phthalate 71888-89-6	100 µg/mL	NEAT	PHTH-017N	50 mg	Hexyl 2-ethylhexyl phthalate 75673-16-4	100 µg/mL	NEAT	J-016	100 mg
Phthalates - Tech Mixes		MeOH	PHTH-017S	1 mL	Iso-butyl benzyl phthalate		NEAT	PHTH-015N	10 mg
Diisohexyl phthalate (Tech Mix) 68515-50-4	100 µg/mL	NEAT	J-007	100 mg	Isobutylcyclohexyl phthalate 5334-09-8	100 µg/mL	MeOH	PHTH-015S	1 mL
Diisononyl phthalate 68515-48-0 (C8 to C10 Isomers)		NEAT	ALR-102N	100 mg	Pentyl isopentyl phthalate 84777-06-0		NEAT	PHTH-016N	10 mg
Diioctyl phthalate 27554-26-3 (C8 Isomers)	100 µg/mL	MeOH	ALR-102S	1 mL	n-Octyl n-decyl phthalate 119-07-3	100 µg/mL	MeOH	PHTH-016S	1 mL
Dinonyl phthalate 84-76-4		NEAT	ALR-103N	100 mg			NEAT	J-015	100 mg
			ALR-103S	1 mL					
			J-105	100 mg					

Concern over environmental and health-related factors associated with phthalates has led to restrictions of use in a wide array of products. This has resulted in the plastics industry generating a variety of alternatives. In response, AccuStandard has expanded a phthalate listing to include 42 compounds representing 18 chemical classes.

Replacement Phthalate Analytes

Compound	Conc.	Matrix	Cat. No.	Unit	Compound	Conc.	Matrix	Cat. No.	Unit
Azelaic Acid Derivatives					Oleic Acid Derivatives				
Diisodecyl azelate 28472-97-1	1000 µg/mL	Acetone	PLAS-PL-075S-A	1 mL	Glycerol monooleate 25496-72-4	1000 µg/mL	Hexane	PLAS-PL-096S	1 mL
Diioctyl azelate 26544-17-2	1000 µg/mL	Acetone	PLAS-PL-076S-A	1 mL	Methyl oleate 112-62-9	1000 µg/mL	Hexane	PLAS-PL-097S	1 mL
Dimethyl azelate 1732-10-1	1000 µg/mL	Acetone	PLAS-PL-077S-A	1 mL	n-Propyl oleate 111-59-1	1000 µg/mL	Hexane	PLAS-PL-098S	1 mL
Di-n-hexyl azelate 109-31-9	1000 µg/mL	Acetone	PLAS-PL-078S-A	1 mL	Tetrahydrofurfuryl oleate 5420-17-7	1000 µg/mL	Hexane	PLAS-PL-099S	1 mL
Di(2-ethylhexyl) azelate 103-24-2	1000 µg/mL	Acetone	PLAS-PL-081S-A	1 mL	Palmitic Acid derivative Isopropyl palmitate 142-91-6	1000 µg/mL	Hexane	PLAS-PL-100S	1 mL
Adipic Acid Derivatives					Benzoic Acid Derivatives				
Di(tridecyl) adipate 16958-92-2	1000 µg/mL	Acetone	PLAS-PL-079S-A	1 mL	Di(propylene glycol) dibenzoate 27138-31-4	1000 µg/mL	Hexane	PLAS-PL-101S	1 mL
Di(n-heptyl, n-nonyl) adipate 68515-75-3	1000 µg/mL	Hexane	PLAS-PL-080S	1 mL	Polyethylene glycol 200 dibenzoate 9004-86-8	1000 µg/mL	Hexane	PLAS-PL-102S	1 mL
Diisobutyl adipate 141-04-8	1000 µg/mL	Hexane	PLAS-PL-082S	1 mL	Phosphoric Acid Derivatives				
Diisodecyl adipate 27178-16-1	1000 µg/mL	Hexane	PLAS-PL-083S	1 mL	t-Butylphenyl diphenyl phosphate 56803-37-3	1000 µg/mL	Hexane	PLAS-PL-103S	1 mL
Dimer Acid Derivatives					Tri-butoxyethyl phosphate 78-51-3	1000 µg/mL	Hexane	PLAS-PL-104S	1 mL
bis(2-Hydroxyethyl) dimerate	1000 µg/mL	Hexane	PLAS-PL-084S	1 mL	Ricinoleic Acid Derivatives				
Epoxy Derivatives					Butyl ricinoleate 151-13-3	1000 µg/mL	Hexane	PLAS-PL-105S	1 mL
Epoxidized linseed oil 8016-11-3	1000 µg/mL	Toluene	PLAS-PL-085S-T	1 mL	Glyceryl (triacyetyl) ricinoleate 101-34-8	1000 µg/mL	Hexane	PLAS-PL-106S	1 mL
2-Ethylhexyl epoxy tallate 61789-01-3	1000 µg/mL	Hexane	PLAS-PL-086S	1 mL	n-Butyl acetyl ricinoleate 140-04-5	1000 µg/mL	Hexane	PLAS-PL-107S	1 mL
Fumaric Acid Derivative					Propylene glycol ricinoleate 26402-31-3	1000 µg/mL	Toluene	PLAS-PL-108S-T	1 mL
Dibutyl fumarate 105-75-9	1000 µg/mL	Hexane	PLAS-PL-087S	1 mL	Succinic acid Derivatives				
Glycerol Derivative					Diethyl succinate 123-25-1	1000 µg/mL	Hexane	PLAS-PL-109S	1 mL
Glycerol triacetate 102-76-1	1000 µg/mL	Hexane	PLAS-PL-088S	1 mL	Sulfonic acid Derivatives				
Isobutyrate Derivative					o/p-Toluenesulfonamide 8013-74-9	1000 µg/mL	Acetone	PLAS-PL-110S-A	1 mL
2,2,4-Trimethyl-1,3-pentanediol-diisobutyrate 6846-50-0	1000 µg/mL	Hexane	PLAS-PL-089S	1 mL	N-Ethyl o/p-toluenesulfonamide 8047-99-2	1000 µg/mL	Toluene	PLAS-PL-111S-T	1 mL
Maleic Acid Derivatives					Stearic acid Derivatives				
Di(2-ethylhexyl)maleate 142-16-5 [Diocetyl maleate]	1000 µg/mL	Hexane	PLAS-PL-090S	1 mL	Ethylene glycol monostearate 111-60-4	1000 µg/mL	Hexane	PLAS-PL-112S	1 mL
Di n-butyl maleate 105-76-0	1000 µg/mL	Hexane	PLAS-PL-091S	1 mL	Isopropyl isostearate 68171-33-5	1000 µg/mL	Hexane	PLAS-PL-113S	1 mL
Mellitates					n-Butyl stearate 123-95-5	1000 µg/mL	Hexane	PLAS-PL-114S	1 mL
Tricapryl trimellitate 27251-75-8	1000 µg/mL	Hexane	PLAS-PL-092S	1 mL	Glycerol monostearate 31566-31-1	1000 µg/mL	Toluene	PLAS-PL-115S-T	1 mL
Triisodecyl trimellitate 36631-30-8	1000 µg/mL	Hexane	PLAS-PL-093S	1 mL	Propylene glycol monostearate 1323-39-3	1000 µg/mL	Hexane	PLAS-PL-116S	1 mL
Tri-(n-octyl, n-decyl) trimellitate 67989-23-5	1000 µg/mL	Hexane	PLAS-PL-094S	1 mL					
Myristate									
Isopropyl myristate 110-27-0	1000 µg/mL	Hexane	PLAS-PL-095S	1 mL					

Phthalates

Phthalate Methods

Method 506 Phthalate Esters by PID

Phthalate Esters

M-506 1 x 1 mL
M-506-PAK **SAVE** 5 x 1 mL
 1.0 mg/mL each in Isooctane 7 comps.

Benzyl butyl phthalate	bis(2-Ethylhexyl)adipate
Dimethyl phthalate	bis(2-Ethylhexyl)phthalate
Diethyl phthalate	Di- <i>n</i> -octyl phthalate
Di- <i>n</i> -butyl phthalate	

M-506-QC 1 x 1 mL
M-506-QC-PAK **SAVE** 5 x 1 mL
 At stated conc. (mg/mL) in MeOH 7 comps.

Benzyl butyl phthalate	0.25	bis(2-Ethylhexyl)adipate	1.2
Dimethyl phthalate	0.1	bis(2-Ethylhexyl)phthalate	0.25
Diethyl phthalate	0.1	Di- <i>n</i> -octyl phthalate	0.65
Di- <i>n</i> -butyl phthalate	0.1		

Method 606 Phthalate Esters by GC/ECD

M-606 1 x 1 mL
M-606-PAK **SAVE** 5 x 1 mL
 0.2 mg/mL each in MeOH 6 comps.

Benzyl butyl phthalate	Di- <i>n</i> -butyl phthalate
Dimethyl phthalate	Di- <i>n</i> -octyl phthalate
Diethyl phthalate	bis(2-Ethylhexyl)phthalate

Method 8060 Phthalate Esters by GC/ECD

Phthalate Esters

M-8060 1 x 1 mL
M-8060-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in Isooctane 6 comps.

Benzyl butyl phthalate	Di- <i>n</i> -butyl phthalate
Diethyl phthalate	Di- <i>n</i> -octyl phthalate
Dimethyl phthalate	bis(2-Ethylhexyl)phthalate

M-8060-QC 1 x 1 mL
M-8060-QC-PAK **SAVE** 5 x 1 mL
 At stated conc. (mg/mL) in MeOH 6 comps.

Benzyl butyl phthalate	0.1	Di- <i>n</i> -butyl phthalate	0.25
Diethyl phthalate	0.25	Di- <i>n</i> -octyl phthalate	0.5
Dimethyl phthalate	0.25	bis(2-Ethylhexyl)phthalate	0.5

Method 8061A Phthalate Esters by GC/ECD

Phthalate Esters

M-8061-R1 1 x 1 mL
M-8061-R1-PAK **SAVE** 5 x 1 mL
 1.0 mg/mL each in Hexane 15 comps.

bis(2- <i>n</i> -Butoxyethyl)phthalate	Dimethyl phthalate
Butyl benzyl phthalate	Dinonyl phthalate
Dipentyl phthalate	Di- <i>n</i> -octyl phthalate
Di- <i>n</i> -butyl phthalate	bis(2-Ethoxyethyl)phthalate
Dicyclohexyl phthalate	bis(2-Ethylhexyl)phthalate
Diethyl phthalate	bis(2-Methoxyethyl)phthalate
Dihexyl phthalate	bis(4-Methyl-2-pentyl)phthalate
Diisobutyl phthalate	

M-8061A 1 x 1 mL
M-8061A-PAK **SAVE** 5 x 1 mL
 1.0 mg/mL each in Hexane 6 comps.

Butyl benzyl phthalate	Diethyl phthalate
bis(2-Ethylhexyl)phthalate	Dimethyl phthalate
Di- <i>n</i> -butyl phthalate	Di- <i>n</i> -octyl phthalate

Matrix Spike Solution

M-8061A-MS 1 x 1 mL
M-8061A-MS-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in Acetone 2 comps.

Butyl benzyl phthalate	bis(2-Ethylhexyl)phthalate
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Internal Standard

M-8061-IS 1 x 1 mL
M-8061-IS-PAK **SAVE** 5 x 1 mL
 5.0 mg/mL in Hexane

Benzyl benzoate

Surrogate Standards

M-8061-SS 1 x 1 mL
M-8061-SS-PAK **SAVE** 5 x 1 mL
 50 µg/mL each in Acetone

M-8061-SS-10X 1 x 1 mL
M-8061-SS-10X-PAK **SAVE** 5 x 1 mL
 500 µg/mL each in Acetone 3 comps.

Dibenzyl phthalate	Diphenyl phthalate
Diphenyl isophthalate	



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