

Volatiles

Chlorinated Organic Volatiles Calibration Standards

Appendix 2, Drinking Water Regulation of May 22, 1986.

AE-00048 1 x 1 mL
100 ng/µL each in MeOH 5 comps.

1,1,1-Trichloroethane	Dichloromethane
Trichloroethene	Tetrachloromethane
Tetrachloroethene	

Calibration Solutions

Set of 5 ampules with a concentration of 1 ng/µL, 5 ng/µL, 10 ng/µL, 50 ng/µL and 100 ng/µL 1 mL each in MeOH

AE-00034-CAL-SET 5 x 1 mL

1,1,1-Trichloroethane

AE-00035-CAL-SET 5 x 1 mL

Trichloroethene

AE-00036-CAL-SET 5 x 1 mL

Tetrachloroethene

AE-00037-CAL-SET 5 x 1 mL

Dichloromethane

AE-00038-CAL-SET 5 x 1 mL

Tetrachloromethane

Volatiles Calibration Curve

Mix 1

AE-00039-CAL-SET 5 x 1 mL
Set of 5 ampules with a concentration of 1 ng/µL, 5 ng/µL, 10 ng/µL, 50 ng/µL, 100 ng/µL of each component 1 mL each in MeOH 5 comps.

Dichloromethane	1,1,1-Trichloroethane
Tetrachloroethene	Trichloroethene
Tetrachloromethane	

Volatiles Calibration Curve

Mix 2

AE-00040-CAL-SET 5 x 1 mL
Set of 5 ampules with a concentration of 1 ng/µL, 5 ng/µL, 10 ng/µL, 50 ng/µL, 100 ng/µL of each component in MeOH 6 comps.

Chloroform	Tetrachloromethane
Dichloromethane	1,1,1-Trichloroethane
Tetrachloroethene	Trichloroethene

USEPA Method 501

Method 501 Trihalomethane Analysis by P&T- GC/ECD or PID

M-501 1 x 1 mL
M-501-PAK **SAVE** 5 x 1 mL
0.2 mg/mL each in MeOH 4 comps.

Bromoform	Dibromochloromethane
Chloroform	Dichlorobromomethane

USEPA Method 502 VOCs by PID / ELCD

54 Liquid Components

M-502A-R 0.2 mg/mL each in MeOH 1 x 1 mL
M-502A-R-PAK 0.2 mg/mL each in MeOH **SAVE** 5 x 1 mL
M-502A-R-10X 2.0 mg/mL each in MeOH 1 x 1 mL
M-502A-R-10X-PAK 2.0 mg/mL each in MeOH **SAVE** 5 x 1 mL

Benzene (01)	1,3-Dichlorobenzene (22)	Naphthalene (40)
Bromobenzene (02)	1,4-Dichlorobenzene (23)	<i>n</i> -Propylbenzene (41)
Bromochloromethane (03)	1,1-Dichloroethane (25)	Styrene (42)
Bromodichloromethane (04)	1,2-Dichloroethane (26)	1,1,1,2-Tetrachloroethane (43)
Bromoform (05)	1,1-Dichloroethene (27)	1,1,2,2-Tetrachloroethane (44)
<i>n</i> -Butylbenzene (07)	<i>cis</i> -1,2-Dichloroethene (28)	Tetrachloroethene (45)
<i>sec</i> -Butylbenzene (08)	<i>trans</i> -1,2-Dichloroethene (29)	Toluene (46)
<i>tert</i> -Butylbenzene (09)	1,2-Dichloropropane (30)	1,2,3-Trichlorobenzene (47)
Carbon tetrachloride (10)	1,3-Dichloropropane (31)	1,2,4-Trichlorobenzene (48)
Chlorobenzene (11)	2,2-Dichloropropane (32)	1,1,1-Trichloroethane (49)
Chloroform (13)	1,1-Dichloropropene (33)	1,1,2-Trichloroethane (50)
2-Chlorotoluene (15)	<i>cis</i> -1,3-Dichloropropene (34A) *	Trichloroethene (51)
4-Chlorotoluene (16)	<i>trans</i> -1,3-Dichloropropene (34B) **	1,2,3-Trichloropropane (53)
Dibromochloromethane (17)	Ethylbenzene (35)	1,2,4-Trimethylbenzene (54)
1,2-Dibromo-3-chloropropane (18)	Hexachlorobutadiene (36)	1,3,5-Trimethylbenzene (55)
1,2-Dibromoethane (19)	Isopropylbenzene (<i>Cumene</i>) (37)	<i>o</i> -Xylene (57)
Dibromomethane (20)	<i>p</i> -Isopropyltoluene (<i>p</i> - <i>Cymene</i>) (38)	<i>m</i> -Xylene (58)
1,2-Dichlorobenzene (21)	Methylene chloride (39)	<i>p</i> -Xylene (59)

* *cis* (1.06 x conc.)
** *trans* (0.94 x conc.)

6 Gas Components

M-502B 0.2 mg/mL each in MeOH 1 x 1 mL
M-502B-PAK 0.2 mg/mL each in MeOH **SAVE** 5 x 1 mL
M-502B-10X 2.0 mg/mL each in MeOH 1 x 1 mL
M-502B-10X-PAK 2.0 mg/mL each in MeOH **SAVE** 5 x 1 mL

Bromomethane (06)	Chloromethane (14)	Trichlorofluoromethane (52)
Chloroethane (12)	Dichlorodifluoromethane (24)	Vinyl chloride (56)

All 60 liquid & gas components in One Convenient Solution

M-502 1 x 1 mL
M-502-PAK **SAVE** 5 x 1 mL
0.2 mg/mL each in MeOH 60 comps.
M-502-10X 1 x 1 mL
M-502-10X-PAK **SAVE** 5 x 1 mL
2.0 mg/mL each in MeOH 60 comps.

Liquids (54 comps.) plus Gases (6 comps.)

Technical Note

Solutions containing volatile components (such as gases) should be chilled before opening to ensure gases are in the solution and not the headspace.

Cat. No. M-502 can also be used for USEPA Method 8021B USEPA Method 8260B (GC/MS)

Volatiles

Volatile Mixtures

USEPA Method 502 (Continued)

Mixtures of Internal, Surrogate Standards & Fortification Solutions

Internal Standards

M-502-IS 1 x 1 mL
M-502-IS-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in MeOH 2 comps.

1-Chloro-2-bromopropane
 Fluorobenzene

M-502-IS-2 1 x 1 mL
M-502-IS-2-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in MeOH 3 comps.

1-Chloro-2-bromopropane
 Fluorobenzene
 Methylene chloride-d₂

M-524-IS 1 x 1 mL
M-524-IS-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in MeOH 2 comps.

1,2-Dichlorobenzene-d₄
 Fluorobenzene

M-524-IS-2 1 x 1 mL
M-524-IS-2-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL in MeOH

Fluorobenzene

Fortification Solution

M-524-FS 1 x 1 mL
M-524-FS-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in MeOH 3 comps.

4-Bromofluorobenzene
 1,2-Dichlorobenzene-d₄
 Fluorobenzene

Surrogate Standard

M-524-SS 1 x 1 mL
M-524-SS-PAK **SAVE** 5 x 1 mL
 2.0 mg/mL each in MeOH 2 comps.

4-Bromofluorobenzene
 1,2-Dichlorobenzene-d₄

Many other Internal & Surrogate Standards are Available in our EPA Method Supplement.

This set is designed to offer the best separation of the components

M-502D/E/F set of 3 x 1 mL
 (set includes **M-502D**, **M-502E** & **M-502F**)

Mix D

M-502D 1 x 1 mL
 0.2 mg/mL each in MeOH 26 comps.

Benzene
 Bromobenzene
 Bromochloromethane
 Bromoform
sec-Butyl benzene
 Carbon tetrachloride
 Chloroethane
 4-Chlorotoluene
 Dibromomethane
 1,2-Dichlorobenzene
 1,4-Dichlorobenzene
 1,1-Dichloroethane
trans-1,2-Dichloroethane
 Dichlorodifluoromethane
 2,2-Dichloropropane
 Ethyl benzene
 Ethylene dibromide
 Isopropylbenzene
 Tetrachloroethene
 1,1,1,2-Tetrachloroethane
 Toluene
 1,2,3-Trichlorobenzene
 1,2,4-Trichlorobenzene
 Trichloroethene
 Vinyl chloride
o-Xylene

Mix E

M-502E 1 x 1 mL
 0.2 mg/mL each in MeOH 21 comps.

Bromomethane
 Chlorobenzene
 Chloromethane
 2-Chlorotoluene
 Dibromochloromethane
 1,3-Dichlorobenzene
 1,1-Dichloroethane
 1,2-Dichloroethane
cis-1,2-Dichloroethane
 1,2-Dichloropropane
cis-1,3-Dichloropropene*
trans-1,3-Dichloropropene**
 Hexachlorobutadiene
 Methylene chloride
 1,1,1-Trichloroethane
 1,1,2-Trichloroethane
 Trichlorofluoromethane
 Styrene
 1,2,3-Trichloropropane
 1,2,4-Trimethylbenzene
m-Xylene * *cis* (1.06 x conc.)
 ** *trans* (0.94 x conc.)

Mix F

M-502F 1 x 1 mL
 0.2 mg/mL each in MeOH 13 comps.

Bromodichloromethane
n-Butyl benzene
tert-Butyl benzene
 Chloroform
 1,2-Dibromo-3-chloropropane
 1,3-Dichloropropane
 1,1-Dichloropropene
p-Isopropyl toluene
 Naphthalene
n-Propyl benzene
 1,1,2,2-Tetrachloroethane
 1,3,5-Trimethyl benzene
p-Xylene

SDWA Volatiles

The U.S. Safe Drinking Water Act (SDWA) amendment of 1996 established a new charter for the Nation's public water systems, individual States and the U.S. EPA in protecting the safety of drinking water. The regulatory section of this act eliminates the requirement for the EPA to regulate 25 additional contaminants every three years. Instead, every 5 years from enactment of the amendment, the EPA will determine whether or not to regulate at least 5 new contaminants from a list being published within 18 months of the enactment of the amendment. The following two pages of National Primary Drinking Water Standards are formulated to provide convenience and flexibility when analyzing regulated contaminants from the Drinking Water Priority list.

Phase I VOCs

M-502C-07 1 x 1 mL
 2.0 mg/mL each in MeOH 12 comps.

Benzene	1,4-Dichlorobenzene
Bromodichloromethane	1,2-Dichloroethane
Bromoform	1,1-Dichloroethylene
Carbon tetrachloride	1,1,1-Trichloroethane
Chloroform	Trichloroethylene
Dibromochloromethane	Vinyl chloride

Phase V Additions

M-502C-10 1 x 1 mL
 2.0 mg/mL in MeOH 3 comps.

Dichloromethane	1,1,2-Trichloroethane
1,2,4-Trichlorobenzene	

Phase II VOCs

M-502C-08 1 x 1 mL
 2.0 mg/mL each in MeOH 12 comps.

Chlorobenzene	Styrene
1,2-Dichlorobenzene	Tetrachloroethylene
<i>cis</i> -1,2-Dichloroethylene	Toluene
<i>trans</i> -1,2-Dichloroethylene	<i>o</i> -Xylene
1,2-Dichloropropane	<i>m</i> -Xylene
Ethylbenzene	<i>p</i> -Xylene

Phase VIB Additions

M-502C-11 1 x 1 mL
 2.0 mg/mL each in MeOH 7 comps.

Acrylonitrile	Hexachlorobutadiene
Bromomethane	1,1,1,2-Tetrachloroethane
<i>cis</i> -1,3-Dichloropropene *	1,2,3-Trichloropropane
<i>trans</i> -1,3-Dichloropropene **	

* *cis* (1.06 x conc.)
 ** *trans* (0.94 x conc.)

Combined Phase I, Phase II, Phase V Volatiles

M-502-REG 1 x 1 mL
M-502-REG-PAK **SAVE** 5 x 1 mL
 0.2 mg/mL each in MeOH 27 comps.

Benzene	1,2-Dichloropropane
Bromodichloromethane	Ethylbenzene
Bromoform	Styrene
Carbon tetrachloride	Tetrachloroethylene
Chlorobenzene	Toluene
Chloroform	1,2,4-Trichlorobenzene
Dibromochloromethane	1,1,1-Trichloroethane
1,2-Dichlorobenzene	1,1,2-Trichloroethane
1,4-Dichlorobenzene	Trichloroethylene
1,2-Dichloroethane	Vinyl chloride
1,1-Dichloroethylene	<i>m</i> -Xylene
<i>cis</i> -1,2-Dichloroethylene	<i>o</i> -Xylene
<i>trans</i> -1,2-Dichloroethylene	<i>p</i> -Xylene
Dichloromethane	

Designed for convenient standard preparation utilizing a single solution.

Volatiles

USEPA Method 503.1 Purgeable Aromatics & Alkenes

M-503		1 x 1 mL
M-503-PAK	SAVE	5 x 1 mL
0.2 mg/mL in MeOH		
Benzene	4-Isopropyltoluene	
Bromobenzene	Naphthalene	
<i>n</i> -Butylbenzene	<i>n</i> -Propylbenzene	
<i>sec</i> -Butylbenzene	Styrene	
<i>tert</i> -Butylbenzene	Tetrachloroethene	
Chlorobenzene	Toluene	
2-Chlorotoluene	1,2,3-Trichlorobenzene	
4-Chlorotoluene	1,2,4-Trichlorobenzene	
1,2-Dichlorobenzene	Trichloroethene	
1,3-Dichlorobenzene	1,2,4-Trimethylbenzene	
1,4-Dichlorobenzene	1,3,5-Trimethylbenzene	
Ethylbenzene	<i>o</i> -Xylene	
Hexachlorobutadiene	<i>m</i> -Xylene	
Isopropylbenzene	<i>p</i> -Xylene	

Internal Standard

M-602-SS		1 x 1 mL
M-602-SS-PAK	SAVE	5 x 1 mL
0.2 mg/mL in MeOH		
α, α, α -Trifluorotoluene		

USEPA Method 504 EDB & DBCP

M-504		1 x 1 mL
M-504-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
1,2-Dibromoethane (EDB)	1,2-Dibromo-3-chloropropane (DBCP)	2 comps.

USEPA Method 551.1A Chlorinated Solvents, Trihalomethanes Disinfection By-products & Halogenated Pesticides/Herbicides in Drinking Water by GC/ECD

Chlorinated Organic Solvents + Trihalomethanes

M-551.1A		1 x 1 mL
M-551.1A-PAK	SAVE	5 x 1 mL
At stated conc. in Acetone		
	$\mu\text{g/mL}$	$\mu\text{g/mL}$
Bromodichloromethane	1000	1,2-Dibromoethane 1000
Bromoform	1000	Tetrachloroethene 500
Carbon tetrachloride	500	1,1,1-Trichloroethane 1000
Chloroform	1000	1,1,2-Trichloroethane 10,000
Dibromochloromethane	1000	Trichloroethene 1000
1,2-Dibromo-3-chloropropane	1000	1,2,3-Trichloropropane 10,000

Disinfection By-products

M-551.1B		1 x 1 mL
M-551.1B-PAK	SAVE	5 x 1 mL
1000 $\mu\text{g/mL}$ each in Acetone		
Bromochloroacetonitrile	Dichloroacetonitrile	
Chloral hydrate	1,1-Dichloro-2-propanone	
Chloropicrin	Trichloroacetonitrile	
Dibromoacetonitrile	1,1,1-Trichloro-2-propanone	

USEPA Method 551 Chlorinated Organic Solvents + Trihalomethanes by GC/ECD

M-551A		1 x 1 mL
M-551A-PAK	SAVE	5 x 1 mL
5.0 mg/mL each in MeOH		
Bromodichloromethane	1,2-Dibromoethane	
Bromoform	1,2-Dibromo-3-chloropropane	
Carbon tetrachloride	Tetrachloroethene	
Chlorodibromomethane	1,1,1-Trichloroethane	
Chloroform	Trichloroethene	

Disinfection By-products

M-551B (MIX)		1 x 1 mL
5.0 mg/mL each in Acetone		
M-551B-SET		set of 8 x 1 mL
Each at 5.0 mg/mL in Acetone		
Bromochloroacetonitrile (01)	Dichloroacetonitrile (05)	
Chloral hydrate (02)	1,1-Dichloro-2-propanone (06)	
Chloropicrin (03)	Trichloroacetonitrile (07)	
Dibromoacetonitrile (04)	1,1,1-Trichloro-2-propanone (08)	

USEPA Method 601 & 602

Purgeable Halocarbons by Purge & Trap - GC/MS

Purgeable Halocarbon Set

M-601		set of 4 x 1 mL (0.2 mg/mL in MeOH)
M-601-10X		set of 4 x 1 mL (2.0 mg/mL in MeOH)
Set Includes M-601A, M-502B, M-601C, M-501		

Liquids

M-601A		1 x 1 mL
M-601A-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropylene *	
Chlorobenzene	<i>trans</i> -1,3-Dichloropropylene **	
1,2-Dichlorobenzene	Methylene chloride	
1,3-Dichlorobenzene	1,1,2,2-Tetrachloroethane	
1,4-Dichlorobenzene	Tetrachloroethylene	
1,1-Dichloroethane	1,1,1-Trichloroethane	
1,2-Dichloroethane	1,1,2-Trichloroethane	
1,1-Dichloroethylene	Trichloroethylene	
<i>trans</i> -1,2-Dichloroethylene	* <i>cis</i> (1.06 x conc.)	
1,2-Dichloropropane	** <i>trans</i> (0.94 x conc.)	

Gases

M-502B		1 x 1 mL
M-502B-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Bromomethane	Dichlorodifluoromethane	
Chloromethane	Trichlorofluoromethane	
Chloroethane	Vinyl chloride	

Liquid Component

M-601C		1 x 1 mL
M-601C-PAK	SAVE	5 x 1 mL
0.2 mg/mL in MeOH		
M-601C-10X		1 x 1 mL
M-601C-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL in MeOH		
2-Chloroethyl vinyl ether		

Trihalomethanes

M-501		1 x 1 mL
M-501-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Bromoform	Dichlorobromomethane	
Chloroform	Dibromochloromethane	

Purgeable Halocarbon Mix

M-601-ASL		1 x 1 mL
M-601-ASL-PAK	SAVE	5 x 1 mL
100 $\mu\text{g/mL}$ each in MeOH		
Bromodichloromethane	1,2-Dichloroethane	
Bromoform	1,1-Dichloroethene	
Bromomethane	<i>trans</i> -1,2-Dichloroethene	
Carbon tetrachloride	1,2-Dichloropropane	
Chlorobenzene	<i>cis</i> -1,3-Dichloropropene	
Chloroethane	<i>trans</i> -1,3-Dichloropropene	
Chloroform	Dichloromethane	
Chloromethane	1,1,2,2-Tetrachloroethane	
Dibromochloromethane	Tetrachloroethene	
1,2-Dichlorobenzene	1,1,1-Trichloroethane	
1,3-Dichlorobenzene	1,1,2-Trichloroethane	
1,4-Dichlorobenzene	Trichloroethene	
Dichlorodifluoromethane	Trichlorofluoromethane	
1,1-Dichloroethane	Vinyl chloride	

Volatiles

Volatile Mixtures

USEPA Method 601 & 602 (Continued) Purgeable Halocarbons by Purge & Trap - GC/MS

Purgeable Halocarbons & Aromatics

M-601/602		1 x 1 mL
M-601/602-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Benzene	1,2-Dichloropropane	
Bromoform	<i>cis</i> -1,3-Dichloropropylene *	
Carbon tetrachloride	<i>trans</i> -1,3-Dichloropropylene **	
Chlorobenzene	Ethylbenzene	
Chloroform	Methylene chloride	
Dibromochloromethane	1,1,2,2-Tetrachloroethane	
1,2-Dichlorobenzene	Tetrachloroethylene	
1,3-Dichlorobenzene	Toluene	
1,4-Dichlorobenzene	1,1,1-Trichloroethane	
Dichlorobromomethane	1,1,2-Trichloroethane	
1,1-Dichloroethane	Trichloroethylene	
1,2-Dichloroethane		
1,1-Dichloroethylene	* <i>cis</i> (1.06 x conc.)	
<i>trans</i> -1,2-Dichloroethylene	** <i>trans</i> (0.94 x conc.)	

Purgeable Aromatics

M-602		1 x 1 mL
M-602-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Benzene	1,4-Dichlorobenzene	
Chlorobenzene	Ethylbenzene	
1,2-Dichlorobenzene	Toluene	
1,3-Dichlorobenzene		

Purgeable Aromatics - Gasoline ID

M-602-GAS		1 x 1 mL
M-602-GAS-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Benzene	Toluene	
Chlorobenzene	<i>o</i> -Xylene	
1,2-Dichlorobenzene	<i>p</i> -Xylene	
1,3-Dichlorobenzene	<i>m</i> -Xylene	
1,4-Dichlorobenzene	MtBE	
Ethylbenzene		

Combined 601/602 Purgeable Halocarbon & Aromatic Gasoline ID Mixture with MtBE

M-601-CHG		1 x 1 mL
M-601-CHG-PAK	SAVE	5 x 1 mL
100 µg/mL each in MeOH		
Benzene	<i>cis</i> -1,3-Dichloropropene *	
Bromodichloromethane	<i>trans</i> -1,3-Dichloropropene **	
Bromoform	Dichloromethane	
Bromomethane	Ethylbenzene	
Carbon tetrachloride	MtBE	
Chlorobenzene	1,1,2,2-Tetrachloroethane	
Chloroethane	Tetrachloroethene	
Chloroform	Toluene	
Chloromethane	1,1,1-Trichloroethane	
Dibromochloromethane	1,1,2-Trichloroethane	
1,2-Dichlorobenzene	Trichloroethene	
1,3-Dichlorobenzene	Trichlorofluoromethane	
1,4-Dichlorobenzene	<i>m</i> -Xylene	
Dichlorodifluoromethane	<i>o</i> -Xylene	
1,1-Dichloroethane	<i>p</i> -Xylene	
1,2-Dichloroethane	Vinyl chloride	
1,1-Dichloroethene		
<i>trans</i> -1,2-Dichloroethene	* <i>cis</i> (1.06 x conc.)	
1,2-Dichloropropane	** <i>trans</i> (0.94 x conc.)	

Purgeable Internal Standards

M-001R		1 x 1 mL
M-001R-PAK	SAVE	5 x 1 mL
20 mg/ml each in MeOH		
Bromochloromethane	2-Bromo-1-chloropropane	
1,4-Dichlorobutane		

Surrogate Standard

M-602-SS		1 x 1 mL
M-602-SS-PAK	SAVE	5 x 1 mL
0.2 mg/mL in MeOH		
<i>α, α, α</i> -Trifluorotoluene		

USEPA Method 624 Purgeables by GC/MS

M-624		1 x 1 mL
0.2 mg/mL each in MeOH		31 comps.
Benzene	<i>trans</i> -1,2-Dichloroethene	
Bromodichloromethane	1,2-Dichloropropane	
Bromoform	<i>cis</i> -1,3-Dichloropropene *	
Bromomethane	<i>trans</i> -1,3-Dichloropropene **	
Carbon tetrachloride	Ethylbenzene	
Chlorobenzene	Methylene chloride	
Chloroethane	1,1,2,2-Tetrachloroethane	
2-Chloroethylvinyl ether	Tetrachloroethene	
Chloroform	Toluene	
Chloromethane	1,1,1-Trichloroethane	
Dibromochloromethane	1,1,2-Trichloroethane	
1,2-Dichlorobenzene	Trichloroethene	
1,3-Dichlorobenzene	Trichlorofluoromethane	
1,4-Dichlorobenzene	Vinyl chloride	
1,1-Dichloroethane		
1,2-Dichloroethane	* <i>cis</i> (1.06 x conc.)	
1,1-Dichloroethene	** <i>trans</i> (0.94 x conc.)	

Surrogates

Each individual solution 0.2 mg/mL in MeOH

Benzene-d ₆	M-624-SS-01	1 x 1 mL
Bromochloromethane	M-624-SS-02	1 x 1 mL
4-Bromofluorobenzene	M-624-SS-03	1 x 1 mL
1-Chloro-2-bromopropane	M-624-SS-04	1 x 1 mL
1,4-Dichlorobutane	M-624-SS-05	1 x 1 mL
1,2-Dichloroethane-d ₄	M-624-SS-06	1 x 1 mL
1,4-Difluorobenzene	M-624-SS-07	1 x 1 mL
Ethylbenzene-d ₁₀	M-624-SS-08	1 x 1 mL
Fluorobenzene	M-624-SS-09	1 x 1 mL
Pentafluorobenzene	M-624-SS-10	1 x 1 mL
1,2-Dichlorobenzene-d ₄	M-624-SS-11	1 x 1 mL
2-Bromochlorobenzene	M-624-SS-12	1 x 1 mL
4-Chlorofluorobenzene	M-624-SS-13	1 x 1 mL

Surrogate Standard

M-624-SS-M		1 x 1 mL
M-624-SS-M-PAK	SAVE	5 x 1 mL
20 mg/mL each in MeOH		
4-Bromofluorobenzene	Pentafluorobenzene	
Fluorobenzene		

Internal Standard

M-001R		1 x 1 mL
M-001R-PAK	SAVE	5 x 1 mL
20 mg/mL each in MeOH		
Bromochloromethane	2-Bromo-1-chloropropane	
1,4-Dichlorobutane		

USEPA Method 8010 Halogenated VOCs by GC/ECLD (Hall)

Purgeable Halocarbons for 8010

M-601	set of 4 x 1 mL (0.2 mg/mL in MeOH)
M-601-10X	set of 4 x 1 mL (2.0 mg/mL in MeOH)
	(set includes M-601A , M-601B , M-601C , M-501)

Liquids

M-601A		1 x 1 mL
M-601A-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropylene *	
Chlorobenzene	<i>trans</i> -1,3-Dichloropropylene **	
1,2-Dichlorobenzene	Methylene chloride	
1,3-Dichlorobenzene	1,1,2,2-Tetrachloroethane	
1,4-Dichlorobenzene	Tetrachloroethylene	
1,1-Dichloroethane	1,1,1-Trichloroethane	
1,2-Dichloroethane	1,1,2-Trichloroethane	
1,1-Dichloroethylene	Trichloroethylene	
<i>trans</i> -1,2-Dichloroethylene	* <i>cis</i> (1.06 x conc.)	
1,2-Dichloropropane	** <i>trans</i> (0.94 x conc.)	

Volatiles

USEPA Method 8010, 8010A & 8010B Halogenated VOCs Suitable for Analysis by GC/ECLD (Hall)

Gases for 8010

M-502B		1 x 1 mL
M-502B-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Bromomethane	Dichlorodifluoromethane	
Chloromethane	Trichlorofluoromethane	
Chloroethane	Vinyl chloride	

Liquid Component for 8010

M-601C		1 x 1 mL
M-601C-PAK	SAVE	5 x 1 mL
0.2 mg/mL in MeOH		
2-Chloroethyl vinyl ether		

Trihalomethanes for 8010

M-501		1 x 1 mL
M-501-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Bromoform	Dichlorobromomethane	
Chloroform	Dibromochloromethane	

Additional analytes to Method 8010

M-8010R-1		1 x 1 mL
0.2 mg/mL each in MeOH		
Benzylchloride	4-Chlorotoluene	
Bromobenzene	Dibromomethane	
bis(2-Chloroethoxy)methane	1,1,1,2-Tetrachloroethane	
1-Chlorohexane	1,2,3-Trichloropropane	
Chloromethylmethyl ether		

Halogenated VOCs by GC/ECLD (Hall)

M-8010A-SET		2 x 1 mL
(set includes M-8010A-M and M-601C)		

Method 8010A (Methanol Version)

M-8010A-M		1 x 1 mL
0.2 mg/mL each in MeOH		
Benzylchloride	1,2-Dichloroethane	
Bromobenzene	1,1-Dichloroethylene	
Bromoform	<i>trans</i> -1,2-Dichloroethylene	
Bromomethane	1,2-Dichloropropane	
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropylene *	
Chlorobenzene	<i>trans</i> -1,3-Dichloropropylene **	
Chloroethane	Methylene chloride	
Chloroform	1,1,1,2-Tetrachloroethane	
Chloromethane	1,1,2,2-Tetrachloroethane	
Dibromochloromethane	Tetrachloroethylene	
Dibromomethane	1,1,1-Trichloroethane	
1,2-Dichlorobenzene	1,1,2-Trichloroethane	
1,3-Dichlorobenzene	Trichloroethylene	
1,4-Dichlorobenzene	Trichlorofluoromethane	
Dichlorobromomethane	1,2,3-Trichloropropane	
Dichlorodifluoromethane	Vinyl chloride	
1,1-Dichloroethane		

* 1.06 times conc.
** 0.94 times conc.

M-601C		1 x 1 mL
0.2 mg/mL in MeOH		
2-Chloroethyl vinyl ether		

Technical Note

AccuStandard's R & D Department synthesized Xylene-free Chloroprene. The Chloroprene contains no significant chemical impurities. Method 8010/8020 analytes can now be analyzed simultaneously without affecting the Method 8020 Xylene concentration.

APP-9-048-R1		1 x 1 mL
100 µg/mL in MeOH		
Chloroprene	Xylene-free Chloroprene Standard	

Surrogate Standard

M-001R		1 x 1 mL
M-001R-PAK	SAVE	5 x 1 mL
20 mg/mL each in MeOH		
Bromochloromethane	2-Bromo-1-chloropropane	
1,4-Dichlorobutane		

Internal and Surrogate Standard

M-8010-IS/SS		1 x 1 mL
M-8010-IS/SS-PAK	SAVE	5 x 1 mL
150 µg/mL each in MeOH		
4-Bromochlorobenzene	4-Bromofluorobenzene	
Bromochloromethane		

Mix 2

M-8021B-X1		1 x 1 mL
0.2 mg/mL each in MeOH		
Benzyl chloride	bis(2-Chloroisopropyl)ether	
bis(2-Chloroethoxy)methane	Epichlorohydrin	
2-Chloroethylvinyl ether		

Halogenated Volatiles

M-8021B-X2		1 x 1 mL
0.2 mg/mL each in Pentane		
Bromoacetone	Chloromethylmethyl ether	

APP-9-030		1 x 1 mL
100 µg/mL in MeOH		
Bromodichloromethane		

APP-9-130		1 x 1 mL
100 µg/mL in MeOH		
Methyl iodide		

Volatiles

Volatile Mixtures

USEPA Method 8011 DBCP & EDB by GC/MS

M-504-10X		1 x 1 mL
M-504-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		2 comps.
1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (EDB)		

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

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	

Non-Halogenated Volatile Organics

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

Alternate Source Line

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		

USEPA Method 8015B Non-Halogenated Organics by GC/FID

M-8015B/5031-R-SET		set of 27 x 1 mL
Each at 10 mg/mL in H ₂ O		

Acetone	M-8015B/5031-01	1 x 1 mL
Acetonitrile	M-8015B/5031-02	1 x 1 mL
Acrolein	M-8015B/5031-03	1 x 1 mL
Acrylonitrile	M-8015B/5031-04	1 x 1 mL
Allyl alcohol	M-8015B/5031-05	1 x 1 mL
1-Butanol	M-8015B/5031-06	1 x 1 mL
†Butanol	M-8015B/5031-07	1 x 1 mL
Crotonaldehyde	M-8015B/5031-08	1 x 1 mL
Diethyl ether	M-8015B/5031-09	1 x 1 mL
p-Dioxane	M-8015B/5031-10	1 x 1 mL
Ethanol	M-8015B/5031-11	1 x 1 mL
Ethyl acetate	M-8015B/5031-12	1 x 1 mL
Ethylene glycol	M-8015B/5031-13	1 x 1 mL
Ethylene oxide (0.5 mg/mL)	M-8015B/5031-14-R1	1 x 1 mL
Isobutyl alcohol	M-8015B/5031-15	1 x 1 mL
Isopropanol	M-8015B/5031-16	1 x 1 mL
Methanol	M-8015B/5031-17	1 x 1 mL
Methyl ethyl ketone	M-8015B/5031-18	1 x 1 mL
4-Methyl-2-pentanone	M-8015B/5031-19	1 x 1 mL
N-Nitrosodi-n-butylamine (0.5 mg/mL)	M-8015B/5031-20	1 x 1 mL
Paraldehyde	M-8015B/5031-21	1 x 1 mL
2-Pentanone	M-8015B/5031-22	1 x 1 mL
2-Picoline	M-8015B/5031-23	1 x 1 mL
1-Propanol	M-8015B/5031-24	1 x 1 mL
Propionitrile	M-8015B/5031-25	1 x 1 mL
Pyridine	M-8015B/5031-26	1 x 1 mL
o-Toluidine	M-8015B/5031-27	1 x 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 H ₂ O		3 comps.
2-Chloroacetonitrile	Hexafluoro-2-propanol	
Hexafluoro-2-methyl-2-propanol		

Technical Note

Method 5031 describes the separation procedures for non-purgeable, water soluble and volatile organic compounds in aqueous samples of leachates from solid matrices using azeotropic distillation.

Method 8015B is the GC/FID analytical method of analysis. Fuels referenced for analysis by method 8015B

USEPA Method 8020 Aromatic Volatiles by PID

Aromatic Volatile Analytes

M-8020-10X		1 x 1 mL
M-8020-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		10 comps.
Benzene	Ethylbenzene	
Chlorobenzene	Toluene	
1,2-Dichlorobenzene	o-Xylene	
1,3-Dichlorobenzene	m-Xylene	
1,4-Dichlorobenzene	p-Xylene	

M-8020B-R1		1 x 1 mL
M-8020B-R1-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		13 comps.

Benzene	Pyridine
Chlorobenzene	Thiophenol
1,2-Dichlorobenzene	Toluene
1,3-Dichlorobenzene	o-Xylene
1,4-Dichlorobenzene	m-Xylene
Ethylbenzene	p-Xylene
2-Picoline	

Performance Check Solution

S-078-10X		1 x 1 mL
S-078-10X-PAK		5 x 1 mL
2.0 mg/mL in MeOH		

Methyl t-butyl ether

Internal Standards

M-8020-IS		1 x 1 mL
M-8020-IS-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		2 comps.
M-8020-IS-10X		1 x 1 mL
M-8020-IS-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		2 comps.

4-Bromofluorobenzene α,α,α-Trifluorotoluene

Surrogate Standard

M-8020-SS		1 x 1 mL
M-8020-SS-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		3 comps.

4-Bromochlorobenzene Fluorobenzene
1,4-Difluorobenzene

Combined ISTD/SS Solution

M-8020-IS/SS-ASL		1 x 1 mL
M-8020-IS/SS-ASL-PAK	SAVE	4 x 1 mL
1.5 mg/mL each in MeOH		5 comps.

4-Bromochlorobenzene Fluorobenzene
p-Bromofluorobenzene α,α,α-Trifluorotoluene
1,4-Difluorobenzene

Volatiles

USEPA Method 8021B Purgeable Volatiles by PID/ELCD in Series

Liquids (see Method 502 for Analyte list)

M-502A-R 1 x 1 mL
0.2 mg/mL each in MeOH 54 comps.

Gases (see Method 502 for Analyte list)

M-502B 1 x 1 mL
0.2 mg/mL each in MeOH 6 comps.

Halogenated Volatiles Solution 3

M-8021B-X1 1 x 1 mL
0.2 mg/mL each in MeOH 8 comps.

Allyl chloride bis(2-Chloroisopropyl)ether
Benzyl chloride Chloroprene
2-Chloroethanol 1,3-Dichloro-2-propanol
2-Chloroethyl vinyl ether Epichlorohydrin

This Solution contains
Xylene-free Chloroprene

Halogenated Volatiles Solution 4

M-8021B-X2 1 x 1 mL
0.2 mg/mL each in Pentane 2 comps.

Bromoacetone Chloromethyl methyl ether

Surrogate Standards

M-8021-SS 1 x 1 mL
M-8021-SS-PAK SAVE 5 x 1 mL
2.0 mg/mL each in MeOH 2 comps.

4-Bromochlorobenzene 1,4-Dichlorobutane

M-8021-SS-M 1 x 1 mL
M-8021-SS-M-PAK SAVE 5 x 1 mL
2.0 mg/mL each in MeOH 2 comps.

Bromochloromethane 1,4-Dichlorobutane

M-001R 1 x 1 mL
M-001R-PAK SAVE 5 x 1 mL
20 mg/mL each in MeOH 3 comps.

Bromochloromethane 2-Bromo-1-chloropropane
1,4-Dichlorobutane

M-8021A-SS 1 x 1 mL
M-8021A-SS-PAK SAVE 5 x 1 mL
20 mg/mL each in MeOH 4 comps.

4-Bromochlorobenzene 1,4-Dichlorobutane
Bromochloromethane 2-Bromo-1-chloropropane

Chloroprene Solution

APP-9-048-R1-2X 1 x 1 mL
0.2 mg/mL in MeOH

Chloroprene

Xylene-free
Chloroprene Standard

USEPA Method 8260B Volatile Organic Compounds by GC/MS

These formulations have been grouped together for a complete 8260B target compound list. M-502-R contains the 54 typical analytes found in this method and a number of other EPA methods. In addition, we have tried to minimize the number of additional standards required to get the complete analyte list, while still addressing the various chromatographic problems associated to specific analytes.

Liquids (see Method 502 for Analyte list)

M-502A-R 1 x 1 mL
0.2 mg/mL each in MeOH 54 comps.

Gases (see Method 502 for Analyte list)

M-502B 1 x 1 mL
0.2 mg/mL each in MeOH 6 comps.

Additional VOC's by Method 8260B

M-603 1 x 1 mL
1.0 mg/mL each in water 2 comps.

Acrolein Acrylonitrile

M-8240C-R3-10X 1 x 1 mL
At stated conc. in MeOH 12 comps.

	mg/mL		mg/mL
Acetonitrile	20	Ethyl methacrylate	2.0
Allyl chloride	2.0	Isobutyl alcohol	40
cis-1,4-Dichloro-2-butene	2.0	Methacrylonitrile	20
trans-1,4-Dichloro-2-butene	2.0	Methyl methacrylate	2.0
1,4-Dioxane	40	Pentachloroethane	2.0
Ethanol	40	Propionitrile	20

M-8260-ADD ‡ 1 x 1 mL
M-8260-ADD-PAK ‡ 5 x 1 mL

0.2 mg/mL each in MeOH 8 comps.

M-8260-ADD-10X ‡ 1 x 1 mL
2.0 mg/mL each in MeOH 8 comps.

Acetone	2-Hexanone
2-Butanone	Iodomethane
Carbon disulfide	4-Methyl-2-pentanone
2-Chloroethyl vinyl ether	Vinyl acetate

M-8260B-01 1 x 1 mL
M-8260B-01-PAK SAVE 5 x 1 mL
2000 µg/mL each in MeOH 11 comps.

Benzyl chloride	2-Nitropropane
1-Chlorobutane	Dibromofluoromethane
1-Chlorohexane	Methyl acrylate
1,2,3,4-Diepoxybutane	MtBE
Diethyl ether	Pentafluorobenzene
Nitrobenzene	

M-8260B-02 1 x 1 mL
M-8260B-02-PAK SAVE 5 x 1 mL
2000 µg/mL each in MeOH 10 comps.

Allyl alcohol	Ethyl acetate
1-Butanol	Hexachloroethane
Chloroacetonitrile	2-Hydroxypropionitrile
3-Chloropropionitrile	Malonitrile
Epichlorohydrin	Pyridine

‡ To delay premature breakdown of thermally labile products in transit we suggest shipping with a "Cold Pack"

Volatiles

USEPA Method 8260B (Continued) Volatile Organic Compounds by GC/MS

Volatile Mixtures

M-8260B-03
M-8260B-03-PAK **SAVE**
 2000 µg/mL each in MeOH : Water 9:1

N-Nitrosodi- <i>n</i> -butylamine	Propylamine	1 x 1 mL
2-Picoline	<i>o</i> -Toluidine	5 x 1 mL
		4 comps.

M-8260B-04
M-8260B-04-PAK **SAVE**
 2000 µg/mL each in MeOH

<i>t</i> -Butanol	1-Propanol	1 x 1 mL
2-Chloroethanol	Isopropanol	5 x 1 mL
1,3-Dichloro-2-propanol	Propargyl alcohol	6 comps.

M-8260B-05 ‡
M-8260B-05-PAK ‡ **SAVE**
 2000 µg/mL each in MeOH

Crotonaldehyde	Paraldehyde	1 x 1 mL
		5 x 1 mL
		2 comps.

M-8260B-06-PAK ‡ **SAVE**
 2000 µg/mL each in MeOH

Bromoacetone	<i>b</i> -Propiolactone	5 x 1 mL
2-Pentanone		3 comps.

Chloroprene

APP-9-048-R1-10X 1 x 1 mL
 1.0 mg/mL in MeOH

Ethylene oxide

M-8015B/5031-14-R1 1 x 1 mL
 5 mg/mL in H₂O

Chloral hydrate

M-E-1179-M 1 x 1 mL
 1.0 mg/mL in MeOH

Surrogates (GC/MS)

Each at 1.0 mg/mL in Water

Acetone- <i>d</i> ₆	M-8260/5031-SS-01	1 x 1 mL
Acetonitrile- <i>d</i> ₃	M-8260/5031-SS-02	1 x 1 mL
Acrylonitrile- <i>d</i> ₅	M-8260/5031-SS-04	1 x 1 mL
<i>p</i> -Dioxane- <i>d</i> ₈	M-8260/5031-SS-10	1 x 1 mL
Methyl ethyl ketone- <i>d</i> ₅	M-8260/5031-SS-18	1 x 1 mL
Pyridine- <i>d</i> ₅	M-8260/5031-SS-26	1 x 1 mL

Internal Standard (GC/MS)

M-8260/5031-IS-MS 1 x 1 mL
 1.0 mg/mL each in Water

Benzyl alcohol- <i>d</i> ₅	Dimethylformamide- <i>d</i> ₇	4 comps.
Diglyme- <i>d</i> ₄	Isopropyl alcohol- <i>d</i> ₅	

Surrogate Standards

M-8260-SS 1 x 1 mL
M-8260-SS-PAK **SAVE**
 0.2 mg/mL each in MeOH

4-Bromofluorobenzene	Toluene- <i>d</i> ₈	5 x 1 mL
Dibromofluoromethane		3 comps.

M-8260A/B-SS 1 x 1 mL
M-8260A/B-SS-PAK **SAVE**
 0.2 mg/mL each in MeOH

M-8260A/B-SS-10X 1 x 1 mL
M-8260A/B-SS-10X-PAK **SAVE**
 2.0 mg/mL each in MeOH

<i>p</i> -Bromofluorobenzene	1,2-Dichloroethane- <i>d</i> ₂	4 comps.
Dibromofluoromethane	Toluene- <i>d</i> ₈	5 x 1 mL
		4 comps.

‡ To help prevent premature breakdown of thermally labile products when in transit, we suggest you request a "Cold Pack".

Internal Standards

M-8260-IS 1 x 1 mL
M-8260-IS-PAK **SAVE**
 0.2 mg/mL each in MeOH

Chlorobenzene- <i>d</i> ₂	1,4-Dichlorobenzene- <i>d</i> ₂	5 x 1 mL
1,4-Difluorobenzene	Pentafluorobenzene	4 comps.

M-8260-IS-R 1 x 1 mL
M-8260-IS-R-PAK **SAVE**
 0.2 mg/mL each in MeOH

M-8260-IS-R-10X-PAK **SAVE**
 2.0 mg/mL each in MeOH

2-Bromo-1-chloropropane	1,4-Dichlorobenzene- <i>d</i> ₂	5 x 1 mL
1,4-Difluorobenzene	Pentafluorobenzene	4 comps.

M-8260A/B-IS 1 x 1 mL
M-8260A/B-IS-PAK **SAVE**
 0.2 mg/mL each in MeOH

M-8260A/B-IS-10X 1 x 1 mL
M-8260A/B-IS-10X-PAK **SAVE**
 2.0 mg/mL each in MeOH

Chlorobenzene- <i>d</i> ₂	Fluorobenzene	5 x 1 mL
1,4-Dichlorobenzene- <i>d</i> ₂		3 comps.

Combined Internal/Surrogate Standard

M-8260A/B-IS/SS 1 x 1 mL
M-8260A/B-IS/SS-PAK **SAVE**
 200 µg/mL each in MeOH

M-8260A/B-IS/SS-10X 1 x 1 mL
M-8260A/B-IS/SS-10XPAK **SAVE**
 2.0 mg/mL each in MeOH

<i>p</i> -Bromofluorobenzene	1,2-Dichloroethane- <i>d</i> ₂	7 comps.
Chlorobenzene- <i>d</i> ₂	Fluorobenzene	1 x 1 mL
Dibromofluoromethane	Toluene- <i>d</i> ₈	5 x 1 mL
1,4-Dichlorobenzene- <i>d</i> ₂		7 comps.

More EPA Methods can be found in our
 EPA Supplement Catalog



Volatiles

USEPA Method 8240 & 8260 VOCs Auxiliary Standards

Internal Standard VOA

M-8240/60-IS		1 x 1 mL
M-8240/60-IS-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
M-8240/60-IS-10X		1 x 1 mL
M-8240/60-IS-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		
Bromochloromethane	1,4-Difluorobenzene	
Chlorobenzene-d ₆	Pentafluorobenzene	
1,4-Dichlorobenzene-d ₂		

Surrogate Standard VOA

M-8240/60-SS		1 x 1 mL
M-8240/60-SS-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
M-8240/60-SS-10X		1 x 1 mL
M-8240/60-SS-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		
p-Bromofluorobenzene	1,2-Dichloroethane-d ₂	
Dibromofluoromethane	Toluene-d ₈	

Internal / Surrogate Standard VOA

M-8240/60-IS/SS		1 x 1 mL
M-8240/60-IS/SS-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
M-8240/60-IS/SS-10X		1 x 1 mL
M-8240/60-IS/SS-10XPAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		
Bromochloromethane	1,2-Dichloroethane-d ₂	
p-Bromofluorobenzene	1,4-Difluorobenzene	
Chlorobenzene-d ₆	Pentafluorobenzene	
Dibromofluoromethane	Toluene-d ₈	
1,4-Dichlorobenzene-d ₂		

Volatile Calibration Check Compounds (CCC)

CLP-020		1 x 1 mL
CLP-020-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
CLP-020-10X		1 x 1 mL
CLP-020-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		
Chloroform	Ethylbenzene	
1,1-Dichloroethene	Toluene	
1,2-Dichloropropane	Vinyl chloride	

Volatile System Performance Check Cmpds. (SPCC)

CLP-021		1 x 1 mL
CLP-021-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
CLP-021-10X		1 x 1 mL
CLP-021-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		
Bromoform	1,1-Dichloroethane	
Chlorobenzene	1,1,2,2-Tetrachloroethane	
Chloromethane		

Instrument Performance Check Solution

CLP-004		1 x 1 mL
CLP-004-PAK	SAVE	5 x 1 mL
25 µg/mL in MeOH		
CLP-004-10X		1 x 1 mL
CLP-004-10X-PAK	SAVE	5 x 1 mL
250 µg/mL in MeOH		
CLP-004-100X		1 x 1 mL
CLP-004-100X-PAK	SAVE	5 x 1 mL
2500 µg/mL in MeOH		
p-Bromofluorobenzene		

Purgeable Organic Matrix Spiking Solution

CLP-003-R		1 x 1 mL
CLP-003-R-PAK	SAVE	5 x 1 mL
0.25 mg/mL each in MeOH		
CLP-003-R-10X		1 x 1 mL
CLP-003-R-10X-PAK	SAVE	5 x 1 mL
2.5 mg/mL each in MeOH		
Benzene	Toluene	
Chlorobenzene	Trichloroethene	
1,1-Dichloroethene		

Auxiliary Standards - Volatiles

Volatile Calibration Check Compounds (CCC)

CLP-020	0.2 mg/mL each in MeOH		1 x 1 mL
CLP-020-PAK	0.2 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-020-10X	2.0 mg/mL each in MeOH		1 x 1 mL
CLP-020-10X-PAK	2.0 mg/mL each in MeOH	SAVE	5 x 1 mL
6 comps.			
Chloroform	Ethylbenzene		
1,1-Dichloroethene	Toluene		
1,2-Dichloropropane	Vinyl chloride		

Volatile System Performance Check Compounds (SPCC)

CLP-021	0.2 mg/mL each in MeOH		1 x 1 mL
CLP-021-PAK	0.2 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-021-10X	2.0 mg/mL each in MeOH		1 x 1 mL
CLP-021-10X-PAK	2.0 mg/mL each in MeOH	SAVE	5 x 1 mL
5 comps.			
Bromoform	1,1-Dichloroethane		
Chlorobenzene	1,1,2,2-Tetrachloroethane		
Chloromethane			

Hexadecane Extraction Volatiles

CLP-BTEX	0.2 mg/mL each in MeOH		1 x 1 mL
CLP-BTEX-PAK	0.2 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-BTEX-10X	2.0 mg/mL each in MeOH		1 x 1 mL
CLP-BTEX-10X-PAK	2.0 mg/mL each in MeOH	SAVE	5 x 1 mL
9 comps.			
Benzene	m-Xylene		
Ethylbenzene	o-Xylene		
Toluene	p-Xylene		

CLP-001B

1.0 mg/mL each in MeOH		1 x 1 mL
n-Decane	n-Nonane	2 comps.

Instrument Performance Check Solution

CLP-004	25 µg/mL in MeOH		1 x 1 mL
CLP-004-PAK	25 µg/mL in MeOH	SAVE	5 x 1 mL
CLP-004-10X	250 µg/mL in MeOH		1 x 1 mL
CLP-004-10X-PAK	250 µg/mL in MeOH	SAVE	5 x 1 mL
CLP-004-100X	2500 µg/mL in MeOH		1 x 1 mL
CLP-004-100X-PAK	2500 µg/mL in MeOH	SAVE	5 x 1 mL
p-Bromofluorobenzene			

Purgeable Surrogate Standard

CLP-PS	0.25 mg/mL each in MeOH		1 x 1 mL
CLP-PS-PAK	0.25 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-PS-4X	1.0 mg/mL each in MeOH		1 x 1 mL
CLP-PS-4X-PAK	1.0 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-PS-10X	2.5 mg/mL each in MeOH		1 x 1 mL
CLP-PS-10X-PAK	2.5 mg/mL each in MeOH	SAVE	5 x 1 mL
3 comps.			
p-Bromofluorobenzene	Toluene-d ₈		
1,2-Dichloroethane-d ₂			

Purgeable Internal Standard

CLP-PI-0.25X	0.25 mg/mL each in MeOH		1 x 1 mL
CLP-PI-0.25X-PAK	0.25 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-PI	1.0 mg/mL each in MeOH		1 x 1 mL
CLP-PI-PAK	1.0 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-PI-2.5X	2.5 mg/mL each in MeOH		1 x 1 mL
CLP-PI-2.5X-PAK	2.5 mg/mL each in MeOH	SAVE	5 x 1 mL
3 comps.			

Bromochloromethane	1,4-Difluorobenzene
Chlorobenzene-d ₆	

Auxiliary Standards Continued on the Next Page

Volatiles

Auxiliary Standards - Volatiles (Continued)

Purgeable Internal/Surrogate Standard

CLP-PIPS		1 x 1 mL
CLP-PIPS-PAK	SAVE	5 x 1 mL
2.5 mg/mL each in MeOH		
Bromochloromethane	1,2-Dichloroethane-d ₂	
p-Bromofluorobenzene	1,4-Difluorobenzene	
Chlorobenzene-d ₅	Toluene-d ₈	

Purgeable Organic Matrix Spiking Solution

CLP-003-R	0.25 mg/mL each in MeOH	1 x 1 mL
CLP-003-R-PAK	0.25 mg/mL each in MeOH	SAVE 5 x 1 mL
CLP-003-R-10X	2.5 mg/mL each in MeOH	1 x 1 mL
CLP-003-R-10X-PAK	2.5 mg/mL each in MeOH	SAVE 5 x 1 mL
5 comps.		
Benzene	Toluene	
Chlorobenzene	Trichloroethene	
1,1-Dichloroethene		

CLP OLM 04.1 & 04.2 - Volatiles

The highest quality standards for Contract Laboratory Program (CLP) statement of work. This set of volatile standards (listed below) along with a complete semi-volatile series (see pages 88-89) meets OLM 04.1, and also can be used for OLM 04.2 released in August of 1999.

CLP OLM 04.1 & 04.2 - Volatiles Set

CLP-VOC-KIT1 9 x 1 mL
Kit includes: CLP-022-R3, M-601B, CLP-022K-10X, CLP-BTEX, CLP-PS-10X, CLP-PI-2.5X, CLP-PIPS, CLP-003R-10X, CLP-004-10X

CLP OLM 04.1 & 04.2 - Volatile Target Compound List

CLP-022-R3		1x 1 mL
CLP-022-R3-PAK	SAVE	5 x 1 mL
200 µg/mL in MeOH		
Benzene	1,2-Dichloropropane	
Bromodichloromethane	cis-1,3-Dichloropropene	
Bromoform	trans-1,3-Dichloropropene	
Carbon disulfide	Ethylbenzene	
Carbon tetrachloride	Isopropylbenzene	
Chlorobenzene	Methyl acetate	
Chloroform	Methylcyclohexane	
1,2-Dibromo-3-chloropropane	MtBE	
Cyclohexane	Styrene	
Dibromochloromethane	1,1,2,2-Tetrachloroethane	
1,2-Dibromoethane	Tetrachloroethene	
1,2-Dichlorobenzene	Toluene	
1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
1,4-Dichlorobenzene	1,1,1-Trichloroethane	
1,1-Dichloroethane	1,1,2-Trichloroethane	
1,2-Dichloroethane	Trichloroethene	
1,1-Dichloroethene	1,1,2-Trichloro-1,2,2-trifluoroethane	
cis-1,2-Dichloroethene	m-Xylene	
trans-1,2-dichloroethene	p-Xylene	
Dichloromethane	o-Xylene	

Gases

M-601B		1 x 1 mL
M-601B-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
Bromomethane	Dichlorodifluoromethane	
Chloromethane	Trichlorofluoromethane	
Chloroethane	Vinyl chloride	

Ketones

CLP-022K		1 x 1 mL
0.2 mg/mL each in MeOH		
CLP-022K-10X		1 x 1 mL
2.0 mg/mL each in MeOH		
Acetone	2-Hexanone	
2-Butanone	4-Methyl-2-pentanone	

CLP OLM 04.1 & 04.2 - Volatiles (Continued)

CLP 04.1 & 04.2 Screening Mix

CLP-BTEX		1 x 1 mL
CLP-BTEX-PAK	SAVE	5 x 1 mL
0.2 mg/mL each in MeOH		
CLP-BTEX-10X		1 x 1 mL
CLP-BTEX-10X-PAK	SAVE	5 x 1 mL
2.0 mg/mL each in MeOH		
Benzene	m-Xylene	
Ethylbenzene	o-Xylene	
Toluene	p-Xylene	

Purgeable Surrogate Standard

CLP-PS-10X		1 x 1 mL
CLP-PS-10X-PAK	SAVE	5 x 1 mL
2.5 mg/mL each in MeOH		
p-Bromofluorobenzene	Toluene-d ₈	
1,2-Dichloroethane-d ₂		

Purgeable Internal Standard

CLP-PI-2.5X		1 x 1 mL
CLP-PI-2.5X-PAK	SAVE	5 x 1 mL
2.5 mg/mL each in MeOH		
Bromochloromethane	1,4-Difluorobenzene	
Chlorobenzene-d ₅		

Purgeable Internal/Surrogate Standard

CLP-PIPS		1 x 1 mL
CLP-PIPS-PAK	SAVE	5 x 1 mL
2.5 mg/mL each in MeOH		
Bromochloromethane	1,2-Dichloroethane-d ₂	
p-Bromofluorobenzene	1,4-Difluorobenzene	
Chlorobenzene-d ₅	Toluene-d ₈	

Purgeable Organic Matrix Spiking Solution

CLP-003-R-10X		1 x 1 mL
CLP-003-R-10X-PAK	SAVE	5 x 1 mL
2.5 mg/mL each in MeOH		
Benzene	Toluene	
Chlorobenzene	Trichloroethene	
1,1-Dichloroethene		

Instrument Performance Check Solution

CLP-004-10X		1 x 1 mL
CLP-004-10X-PAK	SAVE	5 x 1 mL
250 µg/mL in MeOH		
CLP-004-100X		1 x 1 mL
CLP-004-100X-PAK	SAVE	5 x 1 mL
2500 µg/mL in MeOH		
p-Bromofluorobenzene		

Volatiles

VOC Selected Target Compound Solutions

Volatile Target Compounds List (TCL)

CLP-022-SET ‡ set of 2 x 1 mL
(includes CLP-022-PART-A and CLP-022-PART-B)

Part A

CLP-022-PART-A 1 x 1 mL
0.5 mg/mL each in MeOH 29 comps.

Benzene	<i>trans</i> -1,2-Dichloroethylene
Bromodichloromethane	1,2-Dichloropropane
Bromoform	<i>cis</i> -1,3-Dichloropropene *
Bromomethane	<i>trans</i> -1,3-Dichloropropene **
Carbon tetrachloride	Ethylbenzene
Chlorobenzene	1,1,2,2-Tetrachloroethane
Chloroethane	Tetrachloroethene
Chloroform	Toluene
Chloromethane	1,1,1-Trichloroethane
Dibromochloromethane	1,1,2-Trichloroethane
1,1-Dichloroethane	Trichloroethene
Dichloromethane	Vinyl chloride
1,2-Dichloroethane	<i>m</i> -Xylene
1,1-Dichloroethylene	<i>p</i> -Xylene
<i>cis</i> -1,2-Dichloroethylene	

* *cis* (1.06 x conc.)
** *trans* (0.94 x conc.)

Part B

CLP-022-PART-B ‡ 1 x 1 mL
0.5 mg/mL each in MeOH 8 comps.

Acetone	4-Methyl-2-pentanone
2-Butanone	Styrene
Carbonylsulfide	Vinyl acetate
2-Hexanone	<i>o</i> -Xylene

Volatile Target Compounds List (TCL)

Gases

CLP-022G	0.2 mg/mL each in MeOH		1 x 1 mL
CLP-022G-PAK	0.2 mg/mL each in MeOH	SAVE	5 x 1 mL
CLP-022G-10X	2.0 mg/mL each in MeOH		1 x 1 mL
CLP-022G-10X-PAK	2.0 mg/mL each in MeOH	SAVE	5 x 1 mL

4 comps.

Bromomethane	Chloromethane
Chloroethane	Vinyl chloride

Ketones

CLP-022K ‡	0.2 mg/mL each in MeOH		1 x 1 mL
CLP-022K-10X ‡	2.0 mg/mL each in MeOH		1 x 1 mL
CLP-022K-25X ‡	5.0 mg/mL each in MeOH	NEW	1 x 1 mL

4 comps.

Acetone	2-Hexanone
2-Butanone	4-Methyl-2-pentanone

‡ To help prevent premature breakdown of thermally labile products in transit, we suggest you request a "Cold Pack".

If you do not find the mixture you need, please inquire at your local Distributor for a very competitive prices.

Volatile Target Compounds List (TCL)

CLP-022 ‡ 1 x 1 mL
0.2 mg/mL each in MeOH 37 comps.

Acetone	<i>cis</i> -1,3-Dichloropropene *
Benzene	<i>trans</i> -1,3-Dichloropropene **
Bromodichloromethane	Ethylbenzene
Bromoform	2-Hexanone
Bromomethane	4-Methyl-2-pentanone
2-Butanone	Styrene
Carbonylsulfide	1,1,2,2-Tetrachloroethane
Carbon tetrachloride	Tetrachloroethene
Chlorobenzene	Toluene
Chloroethane	1,1,1-Trichloroethane
Chloroform	1,1,2-Trichloroethane
Chloromethane	Trichloroethene
Dibromochloromethane	Vinyl acetate
1,1-Dichloroethane	Vinyl chloride
Dichloromethane	<i>m</i> -Xylene
1,2-Dichloroethane	<i>o</i> -Xylene
1,1-Dichloroethylene	<i>p</i> -Xylene
<i>cis</i> -1,2-Dichloroethylene	
<i>trans</i> -1,2-Dichloroethylene	
1,2-Dichloropropane	

* *cis* (1.06 x conc.)
** *trans* (0.94 x conc.)

CLP-022-R2 ‡ 1 x 1 mL
0.2 mg/mL each in MeOH 36 comps.

Acetone	1,2-Dichloropropane
Benzene	<i>cis</i> -1,3-Dichloropropene *
Bromodichloromethane	<i>trans</i> -1,3-Dichloropropene **
Bromoform	Ethylbenzene
Bromomethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
Carbonylsulfide	Styrene
Carbon tetrachloride	1,1,2,2-Tetrachloroethane
Chlorobenzene	Tetrachloroethene
Chloroethane	Toluene
Chloroform	1,1,1-Trichloroethane
Chloromethane	1,1,2-Trichloroethane
Dibromochloromethane	Trichloroethene
1,1-Dichloroethane	Vinyl chloride
Dichloromethane	<i>m</i> -Xylene
1,2-Dichloroethane	<i>o</i> -Xylene
1,1-Dichloroethylene	<i>p</i> -Xylene
<i>cis</i> -1,2-Dichloroethylene	
<i>trans</i> -1,2-Dichloroethylene	

* *cis* (1.06 x conc.)
** *trans* (0.94 x conc.)

More EPA Methods can be found in our
EPA Supplement Catalog



APP-9-030:97	10X:102, 103	M-502A-R-10X-	M-601B:102	M-8021-SS-M:99
APP-9-048-R1:97	CLP-022K-	PAK:93	M-601B-PAK:102	M-8021-SS-M-
APP-9-048-R1-	25X:103	M-502A-R-PAK:93	M-601C:95, 97	PAK:99
10X:100	CLP-BTEX:101,	M-502B:93, 95,	M-601C-10X:95	M-8021-SS-
APP-9-048-R1-	102	97, 99	M-601C-10X-	PAK:99
2X:99	CLP-BTEX-	M-502B-10X:93	PAK:95	M-8021A-SS:99
APP-9-130:97	10X:101, 102	M-502B-10X-	M-601C-PAK:95,	M-8021A-SS-
CLP-001B:101	CLP-BTEX-10X-	PAK:93	97	PAK:99
CLP-003-R:101,	PAK:101, 102	M-502B-PAK:93,	M-602:96	M-8021B-X1:97,
102	CLP-BTEX-	95, 97	M-602-GAS:96	99
CLP-003-R-	PAK:101, 102	M-502C-07:94	M-602-GAS-	M-8021B-X2:97,
10X:101, 102	CLP-PI:101	M-502C-08:94	PAK:96	99
CLP-003-R-10X-	CLP-PI-0.25X:101	M-502C-10:94	M-602-PAK:96	M-8240/60-IS:101
PAK:101, 102	CLP-PI-0.25X-	M-502C-11:94	M-602-SS:95, 96	M-8240/60-IS-
CLP-003-R-	PAK:101	M-502D:94	M-602-SS-	10X:101
PAK:101, 102	CLP-PI-2.5X:101,	M-502D/E/F:94	PAK:95, 96	M-8240/60-IS-
CLP-004:101	102	M-502E:94	M-603:99	10X-PAK:101
CLP-004-	CLP-PI-2.5X-	M-502F:94	M-624:96	M-8240/60-IS-
100X:101, 102	PAK:101, 102	M-503:95	M-624-SS-M:96	PAK:101
CLP-004-100X-	CLP-PI-PAK:101	M-503-PAK:95	M-624-SS-M-	M-8240/60-
PAK:101, 102	CLP-PIPS:102	M-504:95	PAK:96	IS/SS:101
CLP-004-	CLP-PIPS-	M-504-10X:98	M-8010-IS/SS:97	M-8240/60-IS/SS-
10X:101, 102	PAK:102	M-504-10X-	M-8010-IS/SS-	10X:101
CLP-004-10X-	CLP-PS:101	PAK:98	PAK:97	M-8240/60-IS/SS-
PAK:101, 102	CLP-PS-10X:101,	M-504-PAK:95	M-8010A-M:97	10X-PAK:101
CLP-004-PAK:101	102	M-524-FS:94	M-8010A-SET:97	M-8240/60-IS/SS-
CLP-020:101	CLP-PS-10X-	M-524-FS-PAK:94	M-8010R-1:97	PAK:101
CLP-020-10X:101	PAK:101, 102	M-524-IS:94	M-8015-ASL:98	M-8240/60-
CLP-020-10X-	CLP-PS-4X:101	M-524-IS-2:94	M-8015A:98	SS:101
PAK:101	CLP-PS-4X-	M-524-IS-2-	M-8015A-10X:98	M-8240/60-SS-
CLP-020-PAK:101	PAK:101	PAK:94	M-8015B-IS-	10X:101
CLP-021:101	CLP-PS-PAK:101	M-524-IS-PAK:94	10X:98	M-8240/60-SS-
CLP-021-10X:101	CLP-VOC-	M-524-SS:94	M-8015B/5031-	10X-PAK:101
CLP-021-10X-	KIT1:102	M-524-SS-PAK:94	14-R1:100	M-8240/60-SS-
PAK:101	M-001R:96, 97,	M-551.1A:95	M-8015B/5031-R-	PAK:101
CLP-021-PAK:101	99	M-551.1A-PAK:95	SET:98	M-8240C-R3-
CLP-022:103	M-001R-PAK:96,	M-551.1B:95	M-8020-10X:98	10X:99
CLP-022-PART-	97, 99	M-551.1B-PAK:95	M-8020-10X-	M-8260-ADD:99
A:103	M-501:93, 95, 97	M-551A:95	PAK:98	M-8260-ADD-
CLP-022-PART-	M-501-PAK:93,	M-551A-PAK:95	M-8020-IS:98	10X:99
B:103	95, 97	M-551B:95	M-8020-IS-10X:98	M-8260-IS:100
CLP-022-R2:103	M-502:93	M-551B-SET:95	M-8020-IS-10X-	M-8260-IS-
CLP-022-R3:102	M-502-10X:93	M-601:95, 96	PAK:98	PAK:100
CLP-022-R3-	M-502-10X-	M-601-10X:95, 96	M-8020-IS-	M-8260-IS-R:100
PAK:102	PAK:93	M-601-ASL:95	PAK:98	M-8260-IS-R-10X-
CLP-022-SET:103	M-502-IS:94	M-601-ASL-	M-8020-IS/SS-	PAK:100
CLP-022G:103	M-502-IS-2:94	PAK:95	ASL:98	M-8260-IS-R-
CLP-022G-	M-502-IS-2-	M-601-CHG:96	M-8020-IS/SS-	PAK:100
10X:103	PAK:94	M-601-CHG-	ASL-PAK:98	M-8260-SS:100
CLP-022G-10X-	M-502-IS-PAK:94	PAK:96	M-8020-SS:98	M-8260-SS-
PAK:103	M-502-PAK:93	M-601/602:96	M-8020-SS-	PAK:100
CLP-022G-	M-502-REG:94	M-601/602-	PAK:98	M-8260/5031-IS-
PAK:103	M-502-REG-	PAK:96	M-8020B-R1:98	FID:98
CLP-022K:102,	PAK:94	M-601A:95, 96	M-8020B-R1-	M-8260/5031-IS-
103	M-502A-R:93, 99	M-601A-PAK:95,	PAK:98	MS:100
CLP-022K-	M-502A-R-10X:93	96	M-8021-SS:99	M-8260/5031-SS-

01:100 S-078-10X-
M-8260/5031-SS- PAK:98
02:100
M-8260/5031-SS-
04:100
M-8260/5031-SS-
10:100
M-8260/5031-SS-
18:100
M-8260/5031-SS-
26:100
M-8260A/B-
IS:100
M-8260A/B-IS-
10X:100
M-8260A/B-IS-
10X-PAK:100
M-8260A/B-IS-
PAK:100
M-8260A/B-
IS/SS:100
M-8260A/B-
IS/SS-10X:100
M-8260A/B-
IS/SS-
10XPAK:100
M-8260A/B-
IS/SS-PAK:100
M-8260A/B-
SS:100
M-8260A/B-SS-
10X:100
M-8260A/B-SS-
10X-PAK:100
M-8260A/B-SS-
PAK:100
M-8260B-01:99
M-8260B-01-
PAK:99
M-8260B-02:99
M-8260B-02-
PAK:99
M-8260B-03:100
M-8260B-03-
PAK:100
M-8260B-04:100
M-8260B-04-
PAK:100
M-8260B-05:100
M-8260B-05-
PAK:100
M-8260B-06:100
M-8260B-06-
PAK:100
M-E-1179-M:100
S-078-10X:98