



CHEMICAL STANDARDS

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Neats and Single-component Solutions

Neats and Single-component Solutions

Sigma-Aldrich offers an extensive line of Fluka and Supelco brand neats and single-component solutions for a variety of applications that include, but are not limited to, environmental, food and beverage, forensics, petrochemical and pharmaceutical analyses. Most of these chemicals are 99% pure. Listed below is just a sampling of the many reference materials available. Please visit sigmaaldrich.com/standards to view our complete product line.

Some of these products are classified as hazardous under European Union (EU) legislation. The Risk and Safety (R and S) phrases are listed in the Risk and Safety section at the front of the catalog.

Note: Due to the growing importance of pesticide residue analyses, our neat and single-component solution pesticide standards have their own section within the Environmental standards chapter of this catalog.

Description	Concentration		Cat. No.	Qty
<i>cis</i> -8,11,14-Eicosatrienoic acid methyl ester solution	~0.1 g/mL in ethanol	-	00813-1ML-F	1 mL
Acenaphthene	-	-	48500-U	5000 mg
Acenaphthene-d ₁₀ solution	2000 µg/mL in methanol	-	48093	1 mL
Acenaphthene-d ₁₀ solution	2000 µg/mL in methylene chloride	-	48417	1 mL
Acenaphthylene	-	-	48566	100 mg
Acepromazine-d ₆ hydrochloride	-	-	32836-10MG	10 mg
Acetaldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	-	47340-U	1 mL
Acetaldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (aldehyde, equivalent)	-	4M7340-U	5 × 1 mL
Acetoin	-	-	40127-U	1000 mg
Acetone	-	-	90872-5ML-F 90872-10ML-F	5 mL 10 mL
Acetone solution	2000 µg/mL in methanol: water (9:1)	-	48358	1 mL
Acetophenone	-	-	42163-1ML-F 42163-5ML-F	1 mL 5 mL
N ⁸ -Acetylspermidine dihydrochloride	-	-	A3658-100MG	100 mg
Acrolein	-		4S8501 48501	100 mg 5 g
Acrolein	-	-	5S06230	1 g
Acrylonitrile solution	5000 µg/mL in methanol	-	40003	1 mL
Albendazole	-	-	A4673-10G	10 g
Ambroxol hydrochloride	-	-	A9797-5G	5 g
4-Aminoazobenzene	-	-	46130-250MG-R	250 mg
<i>o</i> -Aminoazotoluene	-	-	31629-250MG	250 mg
1-Aminohydantoin hydrochloride	-	-	33655-100MG-R	100 mg
1-Amino-2,4-imidazolidinedione- ¹³ C ₃	-	-	34006-10MG-R	10 mg
Amoxicillin trihydrate	-	-	31586-250MG	250 mg
AMOZ	-	-	33349-50MG-R	50 mg
AMOZ-d ₅	-	-	33881-10MG-R	10 mg
Ampicillin trihydrate	-	-	31591-250MG	250 mg
<i>tert</i> -Amyl methyl ether solution	2000 µg/mL in methanol	-	506737	1 mL
5- α -Androstane solution	2000 µg/mL in methylene chloride	-	48168	1 mL
4-Androstene-3,17-dione	-	-	46033-250MG	250 mg
<i>N</i>				
Androsterone	-	-	31579-250MG	250 mg
Anhydrotetracycline hydrochloride	-	-	37919-100MG-R	100 mg
Aniline	-	-	51788-1ML-F 51788-5ML-F	1 mL 5 mL
Aniline solution	2000 µg/mL in methanol	-	48030-U	1 kit
<i>p</i> -Anisaldehyde	-	-	97063-1ML-F 97063-5ML-F	1 mL 5 mL
Anisole	-	-	96109-5ML-F 96109-10ML-F	5 mL 10 mL
Anthracene	-	-	31581-250MG	250 mg
Anthracene	-	-	48567	5000 mg
Anthracene solution	200 µg/mL in methanol	-	48647	1 mL
Anthracene-d ₁₀	-	-	442456	100 mg
Anthracene-d ₁₀ solution	2000 µg/mL in methylene chloride	-	48863	1 mL
Antipyrine	-	-	A5882-25G A5882-100G A5882-500G	25 g 100 g 500 g
AOZ	-	-	33347-50MG-R	50 mg
AOZ-d ₄	-	-	33880-10MG-R	10 mg
L-Arginine hydrochloride solution	100 mM amino acid in 0.1 M HCl	-	08163-5ML-F	5 mL

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Atenolol-d ₇	-	-	06613-2MG	2 mg
Azaperone	-	-	34223-100MG	100 mg
Aztreonam	-	-	A6848-50MG	50 mg
BDE No 99 solution	50 µg/mL in isooctane	-	33676-1ML	1 mL
Beclomethasone dipropionate	-	-	B3022-250MG B3022-1G B3022-5G	250 mg 1 g 5 g
Behenic acid	-	-	11909-100MG 11909-5G	100 mg 5 g
Benzaldehyde	-	-	09143-5ML-F 09143-25ML-F	5 mL 25 mL
Benzaldehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	-	47343	1 mL
Benz[<i>a</i>]anthracene	-	-	48563	100 mg
Benz[<i>a</i>]anthracene-d ₁₂	-	-	442468	10 mg
Benz[<i>a</i>]anthracene-d ₁₂ solution	2000 µg/mL in methylene chloride	-	48789	1 mL
Benzbromarone	-	-	B5774-1G	1 g
Benzene	-	-	12540-5ML-F 12540-50ML-F	5 mL 50 mL
Benzene	-	-	48503	5000 mg
Benzene solution	200 µg/mL in methanol	-	CRM48617	
Benzene solution	5000 µg/mL in methanol	-	40004	1 mL
Benzene-d ₆ solution	2000 µg/mL in methanol	-	48940-U	1 mL
Benzidine solution	5000 µg/mL in methanol	-	40005	1 mL
Benzo[<i>b</i>]fluoranthene	-	-	48490	50 mg
Benzo[<i>b</i>]fluoranthene solution	200 µg/mL in methanol	-	48637	1 mL
Benzo[<i>j</i>]fluoranthene solution	2000 µg/mL in methylene chloride	-	502332	1 mL
Benzo[<i>k</i>]fluoranthene	-	-	48492	50 mg
Benzo[<i>k</i>]fluoranthene solution	200 µg/mL in methylene chloride	-	48668	1 mL
Benzo[<i>k</i>]fluoranthene solution	1000 µg/mL in acetone	-	40073	1 mL
Benzoic acid solution	2000 µg/mL in methylene chloride	-	47508-U	1 mL
Benzo[<i>ghi</i>]perylene	-	-	48491	25 mg
Benzo[<i>ghi</i>]perylene solution	200 µg/mL in methylene chloride	-	48667	1 mL
Benzophenone	-	-	442842	500 mg
Benzo[<i>a</i>]pyrene	-	-	48564	100 mg
Benzo[<i>a</i>]pyrene solution	200 µg/mL in methylene chloride	-	48665	1 mL
Benzo[<i>a</i>]pyrene solution	1000 µg/mL in acetone	-	40071	1 mL
Benzo[<i>a</i>]pyrene-d ₁₂	-	-	442847	10 mg
Benzo[<i>e</i>]pyrene	-	-	442475	25 mg
Benzoylcegonine tetrahydrate	-	-	B4147-10MG B4147-25MG B4147-100MG	10 mg 25 mg 100 mg
Yes/N				
Benzyl alcohol	-	-	08421-5ML-F 08421-25ML-F	5 mL 25 mL
Benzyl alcohol	-	-	442481	1000 mg
Benzyl butyl phthalate	-	-	36927-250MG	250 mg
Benzyl butyl phthalate	-	-	442503	1000 mg
Betamethasone	-	-	34166-100MG	100 mg
Bis-(2-chloroisopropyl) ether	-	-	48498	100 mg
Bis(2-ethylhexyl) phthalate solution	5000 µg/mL in methanol	-	40064	1 mL
Bis(2-ethylhexyl) phthalate solution	2000 µg/mL in methanol	-	47994	1 mL
Bisphenol A-d ₁₆	-	-	442876	50 mg
Boldine	-	-	B3916-1G B3916-5G	1 g 5 g
Brombuterol hydrochloride	-	-	94972-10MG	10 mg
Bromochloromethane	-	-	442498	500 mg
2-Bromo-1-chloropropane solution	2000 µg/mL in methanol	-	48088	1 mL
Bromodichloroacetic acid	-	-	442499	100 mg
Bromodichloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47278	1 mL
Bromodichloromethane	-	-	48540-U	1000 mg
Bromodichloromethane solution	200 µg/mL in methanol	-	48615	1 mL
Bromodichloromethane solution	5000 µg/mL in methanol	-	40046	1 mL
2-Bromoethanol solution	2000 µg/mL in toluene	-	48874	1 mL
1-Bromo-4-fluorobenzene	-	-	442404	1000 mg
1-Bromo-4-fluorobenzene solution	1000 µg/mL in methanol	-	47937	1 mL

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
1-Bromo-4-fluorobenzene solution	2000 µg/mL in methanol	-	48083	1 mL
1-Bromo-4-fluorobenzene solution	25,000 µg/mL in methanol	-	48800	1 mL
Bromoform solution	5000 µg/mL in methanol	-	40212	1 mL
Bromomethane solution	200 µg/mL in methanol	-	48624	1 mL
2-Bromopropionic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47645	1 mL
Bupivacaine hydrochloride monohydrate	-	-	B5274-1G B5274-5G B5274-15G	1 g 5 g 15 g
Busulfan	-	-	B2635-10G B2635-25G	10 g 25 g
2,3-Butanedione	-	-	11038-1ML-F 11038-5ML-F	1 mL 5 mL
<i>tert</i> -Butanol	-	-	50621-1ML-F 50621-5ML-F	1 mL 5 mL
1-Butanol	-	-	19422-5ML	5 mL
2-Butanol	-	-	96870-1ML-F 96870-10ML-F	1 mL 10 mL
2-Butanone	2000 µg/mL in methanol: water (9:1)	-	48877	1 mL
2-Butanone	-	-	02469-5ML	5 mL
Butoxamine hydrochloride	-	-	B1385-50MG B1385-500MG	50 mg 500 mg
<i>n</i> -Butyl acetate	-	-	442666-U	1000 mg
<i>tert</i> -Butyl ethyl ether	-	-	442795	1000 mg
<i>tert</i> -Butyl methyl ether	-	-	08603-5ML-F	5 mL
Butyraldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	-	47345-U	1 mL
Caffeine solution	1.0 mg/mL±5 % in methanol	-	C6035-1ML	1 mL
Caffeine-sodium benzoate	50:50 (wt:wt mixture)	-	C4144-100G	100 g
Camphene	-	-	442505	1000 mg
Carazolol	-	-	53787-10MG	10 mg
Carbamazepine 10,11-epoxide	-	-	C4206-5MG C4206-25MG	5 mg 25 mg
Carbon disulfide solution	5000 µg/mL in methanol	-	40363	1 mL
Carbon tetrachloride	-	-	02671-1ML 02671-5ML	1 mL 5 mL
Carbon tetrachloride	-	-	48505	1000 mg
Carprofen	-	-	33975-100MG-R	100 mg
Cefadroxil	-	-	C7020-1G C7020-5G	1 g 5 g
Cefalexin	-	-	33989-100MG-R	100 mg
Cefalonium hydrate	-	-	32904-100MG	100 mg
Cefapirin sodium	-	-	43989-100MG	100 mg
Cefoperazone dihydrate	-	-	32426-100MG	100 mg
Cefoxitin sodium salt	-	-	C4786-250MG C4786-1G C4786-5G	250 mg 1 g 5 g
Cefquinome sulfate	-	-	32472-100MG	100 mg
Ceftiofur	-	-	34001-100MG-R	100 mg
Ceftiofur hydrochloride	-	-	32422-100MG	100 mg
Cefuroxime	-	-	34218-100MG	100 mg
Cefuroxime sodium salt	-	-	C4417-1G C4417-5G	1 g 5 g
Chloral hydrate solution	1000 µg/mL in acetonitrile	-	47335-U	1 mL
Chloramphenicol	-	-	31667-250MG	250 mg
Chloramphenicol	-	-	442513	1000 mg
<i>D,L-threo</i> -Chloramphenicol- <i>d</i> ₅	-	-	41724-1MG	1 mg
α -Chlordane	-	-	442449	10 mg
Chloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47654-U	1 mL
Chlorobenzene	-	-	08650-5ML-F 08650-25ML-F	5 mL 25 mL
Chlorobenzene solution	5000 µg/mL in methanol	-	40006	1 mL
Chlorobenzene- <i>d</i> ₅	-	-	442517	500 mg
Chlorobenzene- <i>d</i> ₅ solution	2000 µg/mL in methanol	-	48086	1 mL
2-Chloro-2-deoxy- β -D-glucose	-	-	C203-10MG	10 mg
Chlorodibromoacetic acid	-	-	442519	100 mg
Chloroethane solution	200 µg/mL in methanol	-	48626	1 mL
Chloroethane solution	1000 µg/mL in methanol	-	40015	1 mL

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
2-Chloroethanol solution	2000 µg/mL in methanol	-	48085	1 mL
2-Chloroethyl vinyl ether solution	200 µg/mL in methanol	-	48672	1 mL
2-Chloroethyl vinyl ether solution	5000 µg/mL in methanol	-	40017	1 mL
2-Chloroethyl vinyl ether solution	2000 µg/mL in methanol	-	861206	1 mL
1-Chloro-2-fluorobenzene solution	2000 µg/mL in methanol	-	48369	1 mL
Chloroform	-	-	02487-5ML	5 mL
Chloroform	-	-	48520-U	1000 mg
Chloroform solution	200 µg/mL in methanol	-	48603	1 mL
Chloroform solution	5000 µg/mL in methanol	-	40021	1 mL
Chloromethane solution	200 µg/mL in methanol	-	48622	1 mL
4-Chloro-3-methylphenol	-	-	48519	5000 mg
1-Chlorooctadecane	10000 µg/mL in methylene chloride	-	47584-U	1 mL
Chloropicrin	-	-	442521	100 mg
2-Chloropropane	-	-	02489-5ML	5 mL
Chlortetracycline hydrochloride	-	-	46133-250MG-R	250 mg
Chrysene	-	-	35754-100MG	100 mg
Chrysene	-	-	48565-U	100 mg
Chrysene-d ₁₂	-	-	442523	25 mg
Chrysene-d ₁₂ solution	2000 µg/mL in methylene chloride	-	48416	1 mL
Ciclopirox olamine	-	-	C0415-1G C0415-5G	1 g 5 g
Cimaterol	-	-	32568-10MG	10 mg
Cimbuterol	-	-	32576-10MG	10 mg
Ciprofloxacin	-	-	33434-100MG-R	100 mg
Ciprofloxacin-d ₈ hydrochloride hydrate	-	-	32982-10MG	10 mg
Citicoline sodium salt hydrate	-	-	34015-100MG-R	100 mg
Clenbuterol-d ₃ hydrochloride	-	-	54969-10MG	10 mg
Clenpenterol hydrochloride	-	-	32825-10MG	10 mg
Clenproperol	-	-	32827-10MG	10 mg
Clobetasol propionate	-	-	C8037-100MG C8037-1G	100 mg 1 g
Clomiphene citrate salt	-	-	C6272-1G C6272-10G	1 g 10 g
Clopidol	-	-	33988-100MG-R	100 mg
Cocaine hydrochloride solution N	1.0 mg/mL±5 % in methanol	-	C1528-1ML	1 mL
Codeine YesN	-	-	C5901-50MG	50 mg
Conjugated (9Z,11E)-Linoleic acid	-	-	16413-50MG	50 mg
Conjugated (9E,11E)-Linoleic acid	-	-	90983-20MG	20 mg
Conjugated (10E,12Z)-Linoleic acid	-	-	92321-50MG	50 mg
m-Cresol	-	-	65996-1ML-F 65996-5ML-F	1 mL 5 mL
Cumene	-	-	28220-5ML 28220-25ML	5 mL 25 mL
Cyanoguanidine	-	-	41924-50MG	50 mg
Cyclohexane	-	-	28920-5ML 28920-10ML	5 mL 10 mL
Cyclosporin A	-	-	32425-100MG	100 mg
p-Cymene	-	-	30039-5ML	5 mL
L-Cystine hydrochloride solution	10 mM amino acid in 0.1 M HCl	-	57579-5ML-F	5 mL
Danofloxacin	-	-	33700-100MG-R	100 mg
Decafluorobiphenyl solution	2000 µg/mL in methylene chloride	-	48792	1 mL
Decafluorotriphenylphosphine solution	25,000 µg/mL in methylene chloride	-	48724-U	1 mL
Decane	-	-	30540-5ML 30540-25ML	5 mL 25 mL
Decane	-	-	442669	1000 mg
Decanoic acid	-	-	21409-5G	5 g
Decoquinat	-	-	33823-100MG	100 mg
2'-Deoxycytidine hydrochloride	-	-	D8006-1G D8006-10G	1 g 10 g
4-Deoxyribose hydrochloride	-	-	D0501-500MG D0501-1G	500 mg 1 g

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Desmethyldiazepam	-	-	D7282-5MG D7282-10MG D7282-25MG	5 mg 10 mg 25 mg
<i>N</i>				
Dexamethasone	-	-	46165-250MG	250 mg
DFTPP solution	1000 µg/mL in acetone	-	47941	1 mL
2,4-Diaminoanisole	-	-	32831-100MG	100 mg
Diaveridine	-	-	D9516-250MG	250 mg
Dibenz[<i>a,h</i>]anthracene	-	-	48574	100 mg
Dibromoacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47660-U	1 mL
Dibromoacetonitrile	-	-	442552	1000 mg
Dibromochloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47277	1 mL
Dibromochloromethane	-	-	48542	1000 mg
Dibromochloromethane solution	200 µg/mL in methanol	-	48608	1 mL
Dibromochloromethane solution	5000 µg/mL in methanol	-	40200-U	1 mL
1,2-Dibromo-3-chloropropane solution	200 µg/mL in methanol	-	48338	1 mL
4,4'-Dibromooctafluorobiphenyl solution	2000 µg/mL in methylene chloride	-	48791	1 mL
2,3-Dibromopropionic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47789	1 mL
Dibucaine hydrochloride	-	-	D0638-1G D0638-5G D0638-25G	1 g 5 g 25 g
3,5-Di- <i>tert</i> -butyl-4-hydroxytoluene	-	-	442377	1000 mg
Di- <i>n</i> -butyl phthalate solution	5000 µg/mL in methanol	-	40066	1 mL
Dichloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47657-U	1 mL
Dichloroacetonitrile	-	-	442560	1000 mg
1,2-Dichlorobenzene- <i>d</i> ₄ solution	2000 µg/mL in methanol	-	48952-U	1 mL
1,4-Dichlorobenzene solution	5000 µg/mL in methanol	-	40025	1 mL
1,4-Dichlorobenzene- <i>d</i> ₄ solution	2000 µg/mL in methanol	-	48049	1 mL
3,3'-Dichlorobenzidine	-	-	48525	100 mg
3,3'-Dichlorobenzidine solution	5000 µg/mL in methanol	-	40026	1 mL
1,1-Dichloroethane	-	-	36967-250MG 36967-1G	250 mg 1 g
1,1-Dichloroethane	-	-	48512	500 mg
1,1-Dichloroethane solution	5000 µg/mL in methanol	-	40012	1 mL
1,2-Dichloroethane	-	-	02562-1ML 02562-5ML	1 mL 5 mL
1,2-Dichloroethane	-	-	48509	500 mg
1,2-Dichloroethane solution	200 µg/mL in methanol	-	48613	1 mL
1,2-Dichloroethane- <i>d</i> ₄	-	-	442228	1000 mg
1,2-Dichloroethane- <i>d</i> ₄ solution	2000 µg/mL in methanol	-	48941	1 mL
1,1-Dichloroethene solution	1000 µg/mL in methanol	-	40027	1 mL
<i>cis</i> -1,2-Dichloroethene	-	-	48597	1000 mg
<i>trans</i> -1,2-Dichloroethene	-	-	48527	5000 mg
1,1-Dichloroethylene	-	-	02574-1ML 02574-5ML	1 mL 5 mL
Dichloromethane	-	-	02575-5ML	5 mL
Dichloromethane solution	200 µg/mL in methanol	-	48600	1 mL
Dichloromethane solution	5000 µg/mL in methanol	-	40042	1 mL
1,1-Dichloropropene	5000 µg/mL in methanol	-	41166	1 mL
1,3-Dichloropropene	-	-	48530-U	2000 mg
<i>cis</i> -1,3-Dichloropropene	-	-	47755 47755-500MG	100 mg 500 mg
<i>trans</i> -1,3-Dichloropropene	-	-	47793 47793-500MG	100 mg 500 mg
Diclazuril	-	-	34057-100MG-R	100 mg
Diethanolamine	-	-	16957-1ML-F 16957-5ML-F	1 mL 5 mL
1,4-Diethylbenzene	-	-	32018-5ML	5 mL
Diethylene glycol	-	-	03128-5ML-F	5 mL
Diethylene glycol dimethyl ether	-	-	04143-1ML-F 04143-5ML-F	1 mL 5 mL
Diethyl ether	-	-	91238-1ML-F 91238-10ML-F	1 mL 10 mL
Di(2-ethylhexyl)adipate solution	2000 µg/mL in methanol	-	47995-U	1 mL
Diethyl phthalate	-	-	53008-5ML-F	5 mL

Neats and Single-component Solutions

Description	Concentration	Cat. No.	Qty
Difloxacin hydrochloride	-	33984-100MG-R	100 mg
1,4-Difluorobenzene	-	442249	1000 mg
1,4-Difluorobenzene solution	2000 µg/mL in methanol	48944	1 mL
Digoxigenin	-	D9026-25MG D9026-100MG D9026-500MG	25 mg 100 mg 500 mg
Digoxin	-	D6003-100MG D6003-1G D6003-5G	100 mg 1 g 5 g
Dihydroartemisinin	-	D7439-50MG	50 mg
3,5-Dihydroxyhydrocinnamic acid	-	56452-10MG	10 mg
Diisopropyl ether	-	95251-1ML-F 95251-5ML-F 95251-10ML-F	1 mL 5 mL 10 mL
Dimethoate	-	442567	100 mg
1,2-Dimethoxyethane	-	72405-1ML-F 72405-5ML-F	1 mL 5 mL
<i>N,N</i> -Dimethylacetamide	-	72336-1ML-F 72336-5ML-F	1 mL 5 mL
2,4-Dimethylaniline	-	442315	1000 mg
2,6-Dimethylaniline	-	442327	1000 mg
7,12-Dimethylbenz[<i>a</i>]anthracene	-	442425	100 mg
2,2-Dimethylbutane	-	39730-5ML 39730-10ML	5 mL 10 mL
2,3-Dimethylbutane	-	39760-5ML 39760-10ML	5 mL 10 mL
<i>N,N</i> -Dimethylformamide	-	72438-5ML-F	5 mL
4-(3,6-Dimethyl-3-heptyl)phenol-ring- ¹³ C ₆ solution	1 µg/mL in acetone	33575-10ML	10 mL
4-(3,6-Dimethyl-3-heptyl)phenol-ring- ¹³ C ₆ solution	10 µg/mL in acetone	33574-1ML	1 mL
4-(3,6-Dimethyl-3-heptyl)phenol-ring- ¹³ C ₆ solution	100 µg/mL in acetone	32471-1ML	1 mL
4-(3,6-Dimethyl-3-heptyl)phenol-diethoxylate-ring- ¹³ C ₆ solution	10 µg/mL in acetone	33207-1ML	1 mL
4-(3,6-Dimethyl-3-heptyl)phenol monoethoxylate-ring- ¹³ C ₆ solution	10 µg/mL in acetone	33572-1ML	1 mL
3,4-Dimethylhexane	-	40512-1ML-F	1 mL
2,3-Dimethylpentane	-	41085-5ML	5 mL
2,4-Dimethylpentane	-	41090-5ML	5 mL
Dimethyl phthalate solution	5000 µg/mL in methanol	40069	1 mL
Dimethyl sulfoxide	-	94563-1ML-F 94563-10ML-F	1 mL 10 mL
Diminazene aceturate	-	D7770-1G	1 g
2,4-Dinitrophenol solution	5000 µg/mL in methanol	40057	1 mL
Di- <i>n</i> -octyl phthalate	-	31301-250MG	250 mg
Di- <i>n</i> -octyl phthalate	-	48560-U	5000 mg
1,4-Dioxane	-	76887-5ML-F 76887-10ML-F	5 mL 10 mL
1,4-Dioxane solution	2000 µg/mL in methanol	CRM48367	1 mL
Dipentyl phthalate	-	442867	1000 mg
1,2-Diphenylhydrazine	-	442232-U	100 mg
all- <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester	-	05832-100MG	100 mg
all- <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester solution	~100 mg/mL in ethanol	08947-2ML-F	2 mL
Docosane	-	43942-1G 43942-5G	1 g 5 g
all- <i>cis</i> -4,7,10,13,16-Docosapentaenoic acid	-	18566-10MG	10 mg
<i>cis</i> -4,10,13,16-Docosatetraenoic acid methyl ester solution	5% in ethanol	04872-1ML	1 mL
Dodecane	-	44010-5ML 44010-25ML	5 mL 25 mL
Dodecane	-	442671	1000 mg
Dodecanoic acid	-	61609-5G	5 g
Doramectin	-	33993-100MG-R	100 mg
Dotriacontane	-	44253-1G	1 g

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Doxycycline hyclate	-	-	33429-100MG-R 33429-25G	100 mg 25 g
Eicosane	-	-	44818-1G 44818-5G	1 g 5 g
<i>cis</i> -5,8,11,14,17-Eicosapentaenoic acid	-	-	44864-100MG 44864-500MG	100 mg 500 mg
1-Eicosene	-	-	442265	1000 mg
<i>cis</i> -11-Eicosenoic acid	-	-	44878-100MG	100 mg
<i>trans</i> -11-Eicosenoic acid	-	-	10823-50MG	50 mg
5-Eicosylresorcinol	-	-	53503-10MG	10 mg
Elaidic acid	-	-	45089-1G 45089-5G	1 g 5 g
Enoxacin	-	-	E3764-500MG E3764-1G E3764-5G	500 mg 1 g 5 g
Enrofloxacin	-	-	33699-100MG-R	100 mg
Enrofloxacin-d ₅ hydrochloride	-	-	32983-10MG	10 mg
4-Epianhydrotetracycline hydrochloride	-	-	37921-100MG-R	100 mg
4-Epitetracycline hydrochloride	-	-	37918-100MG-R	100 mg
Eprinomectin	-	-	32526-100MG	100 mg
Erythromycin A enol ether	-	-	05238-5MG	5 mg
Estradiol-d ₃	-	-	442878	25 mg
Ethanol	-	-	02483-1ML 02483-5ML	1 mL 5 mL
Ethanol solution	2000 µg/mL in methanol	-	48075	1 mL
2-Ethoxyethanol	-	-	79109-1ML-F 79109-5ML-F	1 mL 5 mL
4-Ethoxymethylene-2-phenyl-2-oxazolin-5-one	-	-	E0753-1G E0753-5G E0753-10G	1 g 5 g 10 g
Ethyl acetate solution	2000 µg/mL in methanol	-	47947	1 mL
Ethyl 3-aminobenzoate methanesulfonate salt	-	-	A5040-25G A5040-100G A5040-250G	25 g 100 g 250 g
Ethylbenzene	-	-	03079-5ML 03079-10ML	5 mL 10 mL
Ethylbenzene-d ₁₀ solution	2000 µg/mL in methanol	-	48942	1 mL
Ethylene glycol	-	-	85978-5ML-F 85978-10ML-F	5 mL 10 mL
Ethylene oxide solution	50 mg/mL in methanol	-	48838	1 mL
Ethylene oxide solution	50 mg/mL in methylene chloride	-	48891	1 mL
Ethylene oxide solution	2000 µg/mL in methylene chloride	-	47949	1 mL
Ethylene oxide solution	500 µg/mL in DMSO	-	44609-U	1 mL
Ethyl ether solution	2000 µg/mL in methanol	-	47948	1 mL
Ethylhydrocupreine hydrochloride	-	-	E9876-100MG E9876-1G E9876-5G	100 mg 1 g 5 g
3-(<i>N</i> -Ethyl-3-methylanilino)-2-hydroxypropanesulfonic acid sodium salt	-	-	E8631-1G E8631-5G	1 g 5 g
Everolimus	-	-	07741-10MG-F	10 mg
Florfenicol	-	-	F1427-500MG	500 mg
Florfenicol amine	-	-	32492-10MG	10 mg
Flubendazol	-	-	34091-100MG	100 mg
Flufenamic acid	-	-	F9005-10G F9005-50G	10 g 50 g
Flunixin	-	-	33586-100MG	100 mg
Fluocinolone acetonide	-	-	F8880-100MG F8880-1G	100 mg 1 g
Fluoranthene	-	-	48535	5000 mg
Fluoranthene-d ₁₀	-	-	442843	50 mg
Fluorene	-	-	48568	5000 mg
Fluorene-d ₁₀	-	-	442848	50 mg
Fluorobenzene	-	-	47321	1000 mg
Fluorobenzene solution	1000 µg/mL in methanol	-	47895	1 mL
Fluorobenzene solution	2000 µg/mL in methanol	-	48943	1 mL
2-Fluorobiphenyl solution	2000 µg/mL in methylene chloride	-	48722-U	1 mL
2-Fluoronaphthalene	-	-	442349	100 mg

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Fluoxetine hydrochloride	-	-	34012-10MG-R	10 mg
Folinic acid calcium salt hydrate	-	-	F7878-100MG F7878-500MG F7878-1G	100 mg 500 mg 1 g
Formaldehyde solution	~37 wt. % in H ₂ O	-	47083-U	1 mL
Formaldehyde-2,4-DNPH Solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	-	CRM47177	1 pkg
Formaldehyde-2,4-DNPH Solution	100 µg/mL in acetonitrile	-	CRM4M7177	1 pkg
Fosfomycin sodium	-	-	34089-100MG	100 mg
Freon® 113 solution	1000 µg/mL in methanol	-	48411	1 mL
Freon® 113 solution	2000 µg/mL in methanol	SES	47944	1 mL
Freon® Mix	10,000 µg/mL each component in ethyl acetate	-	48420-U	1 mL
D-(-)-Fructose	-	-	F2793-500MG	500 mg
Galactinol dihydrate	-	-	79544-10MG 79544-50MG	10 mg 50 mg
Gentamicin sulfate salt hydrate	-	-	46305-250MG	250 mg
Ginkgolide A from <i>Ginkgo biloba</i> leaves	-	-	G4028-50MG	50 mg
Glycine hydrochloride solution	100 mM amino acid in 0.1 M HCl	-	55097-5ML-F	5 mL
(±)-Gossypol-acetic acid	-	-	G4382-250MG G4382-1G	250 mg 1 g
Halofuginone hydrobromide	-	-	32481-10MG	10 mg
Heneicosane	-	-	51523-1G 51523-5G	1 g 5 g
Heneicosanoic acid	-	-	H5149-100MG H5149-1G	100 mg 1 g
5-Heneicosylresorcinol	-	-	50851-10MG	10 mg
Hentriacontane	-	-	51529-250MG 51529-1G	250 mg 1 g
Heptacosane	-	-	51559-250MG 51559-1G	250 mg 1 g
Heptadecane	-	-	51578-1ML 51578-SML	1 mL 5 mL
5-Heptadecylresorcinol	-	-	97001-10MG	10 mg
Heptane	-	-	51730-5ML 51730-50ML	5 mL 50 mL
Heptatriacontane	-	-	51848-1G	1 g
1-Heptene	-	-	51856-5ML	5 mL
Heroin	-	-	H159-25MG	25 mg
YesN				
Heroin hydrochloride monohydrate	-	-	67357-10MG	10 mg
YesN				
Hesperetin	-	-	H4125-1G H4125-10G	1 g 10 g
Hexachlorobenzene	-	-	48508	1000 mg
Hexachlorobenzene solution	1000 µg/mL in acetone	-	40008	1 mL
Hexachlorobutadiene solution	5000 µg/mL in methanol	-	40050-U	1 mL
Hexachlorocyclopentadiene solution	5000 µg/mL in methanol	-	40051	1 mL
Hexachloroethane solution	5000 µg/mL in methanol	-	40011	1 mL
Hexachlorophene solution	5000 µg/mL in methanol	-	40323	1 mL
Hexacosane	-	-	52183-250MG 52183-1G	250 mg 1 g
Hexadecane	-	-	52209-5ML 52209-25ML	5 mL 25 mL
Hexadecane	-	-	442679	1000 mg
1-Hexadecene	-	-	52276-5ML	5 mL
Hexane	-	-	52750-10ML 52750-50ML	10 mL 50 mL
Hexanoic acid	-	-	21529-5ML	5 mL
1-Hexanol	-	-	73117-1ML-F 73117-5ML-F	1 mL 5 mL
2-Hexanone	-	-	02473-5ML	5 mL
2-Hexanone	-	-	47733-U	5 mL
Hexatriacontane	-	-	52919-1G	1 g
1-Hexene	-	-	52930-5ML 52930-10ML 52930-50ML	5 mL 10 mL 50 mL
Hexyl acetate	-	-	25539-1ML 25539-5ML	1 mL 5 mL
L-Histidine hydrochloride solution	100 mM amino acid in 0.1 M HCl	-	43011-5ML-F	5 mL

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
HMMNI	-	-	34003-10MG-R 34003-250MG-R	10 mg 250 mg
Hydrocortisone 21-hemisuccinate	-	-	H2882-1G	1 g
Hydroxocobalamin hydrochloride	-	-	H7126-100MG H7126-1G	100 mg 1 g
20 α -Hydroxycholesterol	-	-	H6378-5MG	5 mg
4'-Hydroxydiclofenac	-	-	32412-10MG	10 mg
5-Hydroxyflunixin	-	-	32463-10MG	10 mg
2-Hydroxyibuprofen	-	-	32451-10MG	10 mg
<i>p</i> -Hydroxymethamphetamine N	-	-	H9645-25MG	25 mg
4-Hydroxytamoxifen	-	-	T176-10MG T176-50MG	10 mg 50 mg
Ibuprofen sodium salt	-	-	I1892-100G I1892-500G	100 g 500 g
Ibuprofen-d ₃	-	-	55264-50MG	50 mg
Imidocarb dipropionate	-	-	33441-50MG	50 mg
Indeno[1,2,3- <i>cd</i>]pyrene	-	-	48499	10 mg
Indeno[1,2,3- <i>cd</i>]pyrene solution	200 μ g/mL in methanol	-	48669	1 mL
Iprnidazole-OH	-	-	34004-10MG-R 34004-100MG-R	10 mg 100 mg
Isoniazid	-	-	I3377-5G I3377-50G I3377-250G	5 g 50 g 250 g
Isoprene	-	-	59240-1ML-F 59240-10ML-F	1 mL 10 mL
4,4'-Isopropylidenediphenol	-	-	442840	500 mg
Isovaleraldehyde-2,4-DNPH solution	1000 μ g/mL in acetonitrile (as aldehyde equivalent)	-	47179	1 mL
<i>N</i> -(β -Ketocaproyl)-DL-homoserine lactone	-	-	K3255-25MG K3255-50MG	25 mg 50 mg
α -Ketoglutaric acid disodium salt hydrate	-	-	K3752-5G K3752-100G K3752-1KG	5 g 100 g 1 kg
Lasalocid A sodium salt solution	100 ng/ μ L in acetonitrile	-	33339-2ML	2 mL
Levamisol hydrochloride	-	-	31742-250MG	250 mg
Lidocaine <i>N</i> -ethyl bromide	-	-	L5783-50MG L5783-250MG	50 mg 250 mg
Lincomycin hydrochloride monohydrate	-	-	31727-250MG	250 mg
Linoleic acid	-	-	62230-5ML-F 62230-25ML-F	5 mL 25 mL
Linolelaic acid solution	~250 mg/mL in ethanol	-	55769-1ML	1 mL
Linolenic acid	-	-	62160-1ML 62160-5ML	1 mL 5 mL
γ -Linolenic acid	-	-	62174-100MG-F 62174-500MG-F	100 mg 500 mg
Lipoic acid, reduced	-	-	T8260-25MG T8260-100MG T8260-1G	25 mg 100 mg 1 g
Lithium 3,5-diiodosalicylate	-	-	D3635-1G D3635-5G D3635-25G	1 g 5 g 25 g
Losartan potassium	-	-	61188-100MG	100 mg
L-Lysine hydrochloride solution	100 mM amino acid in 0.1 M HCl	-	44208-5ML-F	5 mL
Mabuterol hydrochloride	-	-	32573-10MG	10 mg
Maduramicin ammonium	-	-	34069-100MG	100 mg
Mapenterol hydrochloride	-	-	49358-5MG	5 mg
Marbofloxacin	-	-	34039-100MG-R	100 mg
Mebendazole	-	-	M2523-25G	25 g
Mebendazole	-	-	46404-250MG	250 mg
Mecillinam	-	-	33447-100MG	100 mg
Megestrol acetate	-	-	M0513-1G M0513-5G	1 g 5 g
Melamine- ¹³ C ₃	-	-	32666-10MG	10 mg
Melengestrol acetate	-	-	33998-100MG-R	100 mg
Meropenem trihydrate	-	-	32460-25MG	25 mg
Mesitylene	-	-	63908-5ML	5 mL
Metformin hydrochloride	-	-	04635-500MG	500 mg

Neats and Single-component Solutions

Description	Concentration	Cat. No.	Qty
Methacrylonitrile	-	442640	1000 mg
Methacycline hydrochloride	-	37906-100MG-R	100 mg
Methanol	-	82762-1ML-F 82762-10ML-F	1 mL 10 mL
Methimazole	-	M8506-25G M8506-100G	25 g 100 g
(+)-3-Methoxymorphinan hydrochloride	-	M187-25MG M187-100MG	25 mg 100 mg
Yes/N			
8-Methoxypsoralen	-	M3501-1G M3501-5G	1 g 5 g
Methyl acetate	-	45997-1ML-F 45997-5ML-F	1 mL 5 mL
Methyl acrylate	-	76778-1ML-F 76778-5ML-F	1 mL 5 mL
2-(Methylamino)propiofenone hydrochloride solution	1.0 mg/mL±5 % in methanol	M8536-1ML	1 mL
N			
Methyl arachidate	-	10941-1G 10941-5G	1 g 5 g
Methyl behenate	-	11940-1G 11940-5G	1 g 5 g
Methyl benzoate	-	18344-1ML-F 18344-5ML-F	1 mL 5 mL
2-Methylbutane	-	59060-5ML 59060-10ML	5 mL 10 mL
3-Methylbutanol	-	59092-1ML 59092-5ML	1 mL 5 mL
2-Methyl-2-butene	-	66050-5ML 66050-10ML 66050-50ML	5 mL 10 mL 50 mL
Methyl <i>tert</i> -butyl ether	-	48027	1000 mg
Methyl <i>tert</i> -butyl ether solution	2000 µg/mL in methanol	CRM48483	1 pkg
Methyl butyrate	-	19358-1ML 19358-5ML	1 mL 5 mL
3-Methylcholanthrene	-	442388	50 mg
Methylcyclopentane	-	66490-10ML 66490-50ML	10 mL 50 mL
Methyl decanoate	-	21479-1ML 21479-5ML	1 mL 5 mL
Methyl all- <i>cis</i> -7,10,13,16,19-docosapentaenoate	-	17269-50MG	50 mg
Methyl <i>cis</i> -13-docosenoate	-	45659-1ML-F 45659-5ML-F	1 mL 5 mL
Methyl dodecanoate	-	61689-5ML	5 mL
Methyl <i>cis,cis</i> -11,14-eicosadienoate	-	17272-100MG	100 mg
Methyl all- <i>cis</i> -5,8,11,14,17-eicosapentaenoate	-	17266-100MG	100 mg
Methyl <i>cis</i> -11-eicosenoate	-	17263-100MG	100 mg
Methyl elaidate	-	45119-1ML 45119-5ML	1 mL 5 mL
Methyl formate	-	06547-5ML	5 mL
Methyl heneicosanoate	-	51535-1G	1 g
Methyl heptadecanoate	-	51633-1G 51633-5G	1 g 5 g
Methyl heptadecanoate-d ₃₃	-	00889-50MG	50 mg
Methyl heptanoate	-	75218-1ML 75218-5ML	1 mL 5 mL
Methyl hexacosanoate	-	52203-100MG	100 mg
Methyl hexanoate	-	21599-1ML-F 21599-5ML-F	1 mL 5 mL
3-Methylhistamine dihydrochloride	-	M7780-50MG	50 mg
2-Methyl-4-isothiazolin-3-one	-	73569-1G	1 g
Methyl isovalerate	-	36492-1ML	1 mL
Methyl linoleate	-	62280-5ML	5 mL
Methyl linolealdate	-	62155-100MG	100 mg
Methyl linolenate	-	62200-1ML 62200-5ML	1 mL 5 mL
Methyl γ-linolenate solution	~250 mg/mL in ethanol	00238-1ML-F	1 mL

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Methyl methacrylate solution	1000 µg/mL in methanol	-	40439	1 mL
Methyl myristate	-	-	70129-1ML 70129-5ML	1 mL 5 mL
Methyl myristelaidate	-	-	70055-100MG	100 mg
Methyl myristoleate	-	-	70121-100MG	100 mg
1-Methylnaphthalene	-	-	442430	500 mg
1-Methylnaphthalene solution	2000 µg/mL in methanol	-	48162	1 mL
2-Methylnaphthalene solution	1000 µg/mL in methanol	-	44637-U	1 mL
1-Methylnicotinamide chloride	-	-	M4627-1G	1 g
4-(Methylnitrosoamino)-1-(3-pyridinyl)-1-butanone	-	-	78013-10MG	10 mg
Methyl nonadecanoate	-	-	74208-1G 74208-5G	1 g 5 g
Methyl nonanoate	-	-	76368-1ML 76368-5ML	1 mL 5 mL
Methyl octacosanoate	-	-	74701-250MG 74701-1G	250 mg 1 g
Methyl cis-11-octadecenoate	-	-	17264-100MG	100 mg
Methyl octanoate	-	-	21719-5ML-F	5 mL
Methyl oleate	-	-	75160-1ML 75160-5ML	1 mL 5 mL
Methyl palmitate	-	-	76159-1G 76159-5G	1 g 5 g
Methyl palmitoleate	-	-	76176-1G	1 g
Methyl pentacosanoate	-	-	76497-100MG	100 mg
Methyl pentadecanoate	-	-	76560-1ML 76560-5ML 76560-25ML	1 mL 5 mL 25 mL
2-Methylpentane	-	-	68310-5ML 68310-50ML	5 mL 50 mL
3-Methylpentane	-	-	68320-5ML 68320-50ML	5 mL 50 mL
4-Methyl-2-pentanone	-	-	02474-5ML	5 mL
2-Methyl-1-pentene	-	-	68450-5ML 68450-25ML	5 mL 25 mL
2-Methylphenol solution	5000 µg/mL in methanol	-	40250-U	1 mL
3-Methylphenol	-	-	442391	1000 mg
3-Methylphenol	5000 µg/mL in methanol	-	40251-U	1 mL
4-Methylphenol solution	5000 µg/mL in methanol	-	40252-U	1 mL
2-Methyl-1-propanol	-	-	82059-1ML-F 82059-5ML-F 82059-10ML-F	1 mL 5 mL 10 mL
Methyl propionate	-	-	81988-1ML	1 mL
1-Methyl-2-pyrrolidinone	-	-	78769-5ML-F 78769-10ML-F	5 mL 10 mL
3-Methyl-2-quinoxalinecarboxylic acid	-	-	32862-50MG	50 mg
Methyl ricinoleate	-	-	83916-100MG	100 mg
Methyl salicylate	-	-	76631-1ML-F 76631-5ML-F	1 mL 5 mL
Methyl stearate	-	-	85769-1G 85769-5G	1 g 5 g
Methyl tetracosanoate	-	-	87115-250MG 87115-1G	250 mg 1 g
Methyl cis-15-tetracosenoate	-	-	17265-100MG	100 mg
Methyl tricosanoate	-	-	91478-250MG 91478-1G	250 mg 1 g
Methyl tridecanoate	-	-	91558-5ML	5 mL
Methyl undecanoate	-	-	94118-1ML 94118-5ML	1 mL 5 mL
Methyl valerate	-	-	94560-1ML 94560-5ML	1 mL 5 mL
Metronidazole	-	-	M3761-5G M3761-25G M3761-100G	5 g 25 g 100 g
Metronidazole	-	-	46461-250MG	250 mg

Neats and Single-component Solutions

Description	Concentration	Cat. No.	Qty
Metronidazole-OH	-	34007-10MG-R	10 mg
Microcystin-LR solution	10 µg/mL in methanol	33893-1ML-R	1 mL
Microcystin-RR solution	10 µg/mL in methanol	33577-1ML	1 mL
Microcystin RR-YR-LR solution	5 µg/mL in methanol (each)	33578-1ML	1 mL
Microcystin-YR solution	10 µg/mL in methanol	33576-1ML	1 mL
Mineral oil standard mixture Type A and B for EN 14039 and ISO 16703	~8 mg/mL in heptane (exact content on the label)	69246-10ML-F	10 mL
Mineral oil type A	-	91975-10ML-F	10 mL
Mineral oil type B	-	78473-10ML-F	10 mL
Moxalactam sodium salt	-	M8158-1G M8158-5G	1 g 5 g
Moxidectin	-	33746-25MG	25 mg
Moxifloxacin hydrochloride	-	32477-50MG	50 mg
Nadolol	-	N1892-1G N1892-5G	1 g 5 g
Naphthalene	-	48546	5000 mg
Naphthalene solution	200 µg/mL in methanol	CRM48641	1 pkg
Naphthalene solution	5000 µg/mL in methanol	40053	1 mL
Naphthalene-d ₈	-	442716	250 mg
Naphthalene-d ₈ solution	2000 µg/mL in methylene chloride	48715-U	1 mL
Natamycin	-	32417-50MG	50 mg
Neobietic acid	-	72066-50MG	50 mg
Nervonic acid	-	87117-100MG	100 mg
(-)-Nicotine solution	1.0 mg/mL 1.0 mg/mL±5 % in methanol	N5511-1ML	1 mL
4-Nitrophenol	-	48549	5000 mg
4-Nitrophenol solution	5000 µg/mL in methanol	40056	1 mL
4-Nitroquinoline N-oxide	-	442683	1000 mg
N-Nitrosodi-n-butylamine	-	442685	100 mg
N-Nitrosodi-n-butylamine solution	2000 µg/mL in methylene chloride	48320-U	1 mL
N-Nitrosodiethylamine	-	442687	1000 mg
N-Nitrosodiethylamine solution	5000 µg/mL in methanol	40334	1 mL
N-Nitrosodimethylamine	-	48552	100 mg
N-Nitrosodimethylamine solution	200 µg/mL in methanol	48670	1 mL
N-Nitrosodimethylamine solution	5000 µg/mL in methanol	40059	1 mL
N-Nitrosodiphenylamine solution	5000 µg/mL in methanol	40060	1 mL
N-Nitrosodiphenylamine solution	5000 µg/mL in methanol	46702-U	1 mL
N-Nitrosodi-n-propylamine	-	48554	100 mg
N-Nitrosodi-n-propylamine solution	5000 µg/mL in methanol	40061	1 mL
N-Nitrosomorpholine solution	5000 µg/mL in methanol	40485	1 mL
1-Nitrosopiperidine solution	5000 µg/mL in methanol	40458	1 mL
trans-Nonachlor	-	442811	25 mg
Nonacosane	-	74156-250MG 74156-1G	250 mg 1 g
Nonadecane	-	74158-1G 74158-5G	1 g 5 g
Nonadecanoic acid	-	72332-1G-F 72332-5G-F	1 g 5 g
5-Nonadecylresorcinol	-	57981-10MG	10 mg
Nonanal	-	442719	1000 mg
Nonane	-	74250-50ML	50 mL
Nonane	-	442694	1000 mg
4-Nonylphenol	-	442873	100 mg
Nonylphenol monoethoxylate solution	50 µg/mL in acetone	32894-1ML	1 mL
Nordoxepin hydrochloride	-	N0392-25MG	25 mg
Norfloxacin	-	N9890-1G N9890-5G	1 g 5 g
Norfloxacin	-	33899-100MG-R	100 mg
Norfloxacin-d ₅	-	34058-10MG-R	10 mg
o(-)-Norgestrel	-	N2260-100MG N2260-1G	100 mg 1 g

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Noscapine hydrochloride hydrate	-	-	N9007-5G N9007-25G	5 g 25 g
2-NP-AHD	-	-	33870-10MG-R	10 mg
2-NP-AMOZ	-	-	33869-10MG-R	10 mg
2-NP-AMOZ-d ₅	-	-	34009-10MG-R	10 mg
2-NP-AOZ	-	-	33868-10MG-R	10 mg
Nystose	-	-	56218-25MG 56218-100MG	25 mg 100 mg
Octachloronaphthalene	-	-	442725	20 mg
Octacosane	-	-	74684-250MG 74684-1G	250 mg 1 g
Octadecane	-	-	74691-1G 74691-5G	1 g 5 g
Octane	-	-	74820-5ML 74820-50ML	5 mL 50 mL
Octanoic acid	-	-	21639-5ML	5 mL
1-Octanol	-	-	95446-1ML-F 95446-5ML-F	1 mL 5 mL
Octatetracontane	-	-	74892-100MG	100 mg
4-Octylphenol	-	-	442850	500 mg
4-tert-Octylphenol	-	-	442858	500 mg
4-tert-Octylphenol-ring- ¹³ C ₆ solution	10 µg/mL in acetone	-	33565-1ML	1 mL
4-tert-Octylphenol diethoxylate solution	10 µg/mL in acetone solution	-	32886-1ML	1 mL
4-tert-Octylphenol-diethoxylate-ring- ¹³ C ₆ solution	10 µg/mL in acetone ¹³ C ₆ solution	-	33229-1ML	1 mL
4-tert-Octylphenol monoethoxylate solution	10 µg/mL in acetone solution	-	32882-1ML	1 mL
4-tert-Octylphenol-monoethoxylate-ring- ¹³ C ₆ solution	10 µg/mL in acetone ring- ¹³ C ₆ solution	-	33563-1ML	1 mL
Oleic acid	-	-	75090-5ML 75090-25ML	5 mL 25 mL
Oxfendazole	-	-	34176-100MG	100 mg
Oxibendazole	-	-	32924-100MG	100 mg
Oxycodone hydrochloride Yes/N	-	-	O1378-500MG	500 mg
Oxytetracycline hydrochloride	-	-	46598-250MG	250 mg
Palmitic acid	-	-	76119-5G	5 g
Palmitoleic acid	-	-	76169-1G	1 g
D-Pantethine	-	-	P2125-1G P2125-5G	1 g 5 g
PCB No 138	-	-	35494-10MG	10 mg
Pefabloc® SC	-	-	76307-100MG 76307-500MG 76307-1G	100 mg 500 mg 1 g
Penicillin G potassium salt	-	-	46609-250MG	250 mg
Penicillin V potassium salt	-	-	46616-250MG	250 mg
Pentachloronitrobenzene solution	5000 µg/mL in methanol	-	40156	1 mL
Pentachlorophenol	-	-	48555-U	5000 mg
Pentachlorophenol solution	500 µg/mL in methanol	-	48692	1 mL
Pentachlorophenol solution	5000 µg/mL in methanol	-	40062	1 mL
Pentacontane	-	-	442743	250 mg
Pentacosane	-	-	76493-250MG 76493-1G	250 mg 1 g
Pentadecane	-	-	76509-5ML 76509-25ML	5 mL 25 mL
Pentadecanoic acid	-	-	91446-5G	5 g
5-Pentadecylresorcinol	-	-	91822-10MG	10 mg
Pentane	-	-	76870-10ML 76870-50ML	10 mL 50 mL
1-Pentanol	-	-	77597-1ML-F 77597-5ML-F 77597-10ML-F	1 mL 5 mL 10 mL
Pentatriacontane	-	-	76968-250MG	250 mg

Neats and Single-component Solutions

Description	Concentration	Cat. No.	Qty
1-Pentene	-	- 76969-5ML 76969-50ML	5 mL 50 mL
Perfluorotributylamine (PFTBA)	-	- 442747-U	1000 mg
Perylene solution	2000 µg/mL in methylene chloride	- 48079	1 mL
Perylene-d ₁₂	-	- 442750	25 mg
Perylene-d ₁₂ solution	2000 µg/mL in methylene chloride	- 48081	1 mL
Phenanthrene	-	- 48569	5000 mg
Phenanthrene solution	5000 µg/mL in methanol	- 40079	1 mL
Phenanthrene-d ₁₀	-	- 442753	100 mg
Phenanthrene-d ₁₀ solution	2000 µg/mL in methanol	- 48094	1 mL
Phenanthrene-d ₁₀ solution	2000 µg/mL in methylene chloride	- 48710-U	1 mL
Phenformin hydrochloride	-	- P7045-1G P7045-10G	1 g 10 g
Phenol solution	500 µg/mL in methanol	- 48688	1 mL
Phenol solution	5000 µg/mL in methanol	- 40063	1 mL
2-Phenoxyethanol	-	- 56753-1ML-F 56753-5ML-F	1 mL 5 mL
p-Phenylenediamine solution	2000 µg/mL in methylene chloride	- 48298	1 mL
Phytane	-	- 80165-25MG 80165-50MG	25 mg 50 mg
Pinocebrin	-	- P5239-50MG	50 mg
Piperazine hexahydrate	-	- P7003-200G P7003-1KG	200 g 1 kg
Polymyxin B solution	1 mg/mL in H ₂ O	- 81271-10ML	10 mL
Proadifen hydrochloride	-	- P1061-100MG P1061-500MG	100 mg 500 mg
Probucol	-	- P9672-1G P9672-50G	1 g 50 g
1,2-Propanediol	-	- 12279-1ML-F 12279-5ML-F	1 mL 5 mL
1-Propanol	-	- 96566-5ML-F 96566-10ML-F	5 mL 10 mL
2-Propanol	-	- 91237-1ML-F 91237-5ML-F 91237-10ML-F	1 mL 5 mL 10 mL
Propionic acid	-	- 94425-1ML-F 94425-5ML-F	1 mL 5 mL
(±)-Propylene oxide	-	- 56671-1ML-F 56671-5ML-F	1 mL 5 mL
Pseudoerythromycin A enol ether	-	- 38874-5MG	5 mg
Pyrene	-	- 48570	5000 mg
Pyrene-d ₁₀	-	- 442846	25 mg
Pyridine	-	- 02486-1ML	1 mL
Pyridine solution	2000 µg/mL in methanol	- 48305-U	1 mL
Pyridoxamine dihydrochloride	-	- P9380-1G P9380-5G P9380-25G	1 g 5 g 25 g
Pyrimethamine	-	- 46706-250MG	250 mg
Pyriproxifen	-	- 34174-100MG	100 mg
Quinaldine	-	- Q2125-500ML Q2125-1L	500 mL 1 L
Ractopamine hydrochloride	-	- 34198-100MG	100 mg
Rapamycin	-	- 37094-10MG	10 mg
Resveratrol	-	- 34092-100MG	100 mg
Robenidine hydrochloride	-	- 33979-100MG-R	100 mg
Salbutamol	-	- 46725-100MG	100 mg
Salinomycin monosodium salt hydrate	-	- 46729-100MG	100 mg
Sarafloxacin hydrochloride trihydrate	-	- 33497-100MG-R	100 mg
SCA- ¹³ C- ¹⁵ N ₂ hydrochloride	-	- 33882-10MG-R	10 mg
Selamectin	-	- 32476-10MG	10 mg
Semicarbazide hydrochloride	-	- 33656-100MG-R	100 mg
β-Sitosterol	-	- S5753-500G	500 g
Sodium 4-hydroxybenzoate	-	- H3766-25G H3766-100G	25 g 100 g


Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Sodium 2-mercaptoethanesulfonate	-	-	M1511-5G M1511-10G M1511-25G	5 g 10 g 25 g
Squalene	-	-	442785	1000 mg
Starch from corn	-	-	S5296-5G	5 g
Stearic acid	-	-	85679-500MG 85679-5G	500 mg 5 g
Stearyl stearate	-	-	46408-100MG	100 mg
Styrene	-	-	47745-U	1 kit
Styrene solution	200 µg/mL in methanol	-	48347	1 mL
Styrene solution	5000 µg/mL in methanol	-	40257-U	1 mL
Sucrose	-	-	S1174-500MG	500 mg
Sulfachloropyridazine	-	-	46778-250MG	250 mg
Sulfadiazine	-	-	35033-100MG	100 mg
Sulfadiazine sodium salt	-	-	S6387-25G S6387-100G	25 g 100 g
Sulfadimethoxine	-	-	S7007-10G S7007-25G S7007-100G	10 g 25 g 100 g
Sulfadimethoxine	-	-	46794-250MG	250 mg
Sulfaethoxypyridazine	-	-	02743-50MG	50 mg
Sulfamerazine	-	-	46826-250MG	250 mg
Sulfamethazine	-	-	46802-250MG	250 mg
Sulfamethazine-(phenyl- ¹³ C ₆) hemihydrate	-	-	32519-10MG	10 mg
Sulfamethizole	-	-	S5632-10G S5632-25G	10 g 25 g
Sulfamethoxazole	-	-	S7507-10G S7507-100G	10 g 100 g
Sulfamethoxazole	-	-	31737-250MG	250 mg
Sulfamethoxazole-(phenyl- ¹³ C ₆)	-	-	32514-10MG	10 mg
Sulfamethoxypyridazine	-	-	S7257-5G S7257-25G	5 g 25 g
Sulfapyridine	-	-	S6252-25G S6252-100G	25 g 100 g
Sulfasalazine	-	-	S0883-10G S0883-50G S0883-100G	10 g 50 g 100 g
Sulfathiazole	-	-	S9876-100G S9876-250G	100 g 250 g
(±)-Sulfinpyrazone	-	-	S9509-5G	5 g
Tea extract from black tea	-	-	T5550-1MG T5550-10MG	1 mg 10 mg
Temozolomide	-	-	76899-10MG	10 mg
<i>o</i> -Terphenyl solution	10000 µg/mL in methylene chloride	-	47580-U	1 mL
<i>p</i> -Terphenyl-d ₁₄ solution	2000 µg/mL in methylene chloride	-	48418	1 mL
Testosterone solution	1.0 mg/mL±2 % in 1,2-dimethoxyethane	-	T5411-1ML	1 mL
<i>N</i> -Testosterone-d ₃	-	-	T2655-10MG	10 mg
<i>N</i> -Testosterone-d ₃ solution	100 µg/mL in 1,2-dimethoxyethane	-	T5536-1ML	1 mL
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin solution	10 µg/mL in toluene	-	48599	1 mL
Tetrachloroethylene	-	-	02666-1ML 02666-5ML	1 mL 5 mL
Tetrachloroethylene solution	200 µg/mL in methanol	-	48609	1 mL
Tetrachloroethylene solution	5000 µg/mL in methanol	-	40083	1 mL
2,3,4,5-Tetrachlorophenol	-	-	442281	100 mg
2,3,4,6-Tetrachlorophenol	-	-	442282	100 mg
2,3,4,6-Tetrachlorophenol solution	5000 µg/mL in methanol	-	48264	1 mL
2,3,5,6-Tetrachlorophenol	-	-	442284	50 mg
Tetracontane	-	-	87086-250MG 87086-1G	250 mg 1 g
Tetracontane	-	-	442706	500 mg

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Tetracosane	-	-	87089-1G	1 g
			87089-5G	5 g
Tetracycline hydrochloride	-	-	31741-250MG	250 mg
Tetradecane	-	-	87139-5ML	5 mL
			87139-25ML	25 mL
Tetrahydrofuran	-	-	78445-5ML-F	5 mL
Tetrapentacontane	-	-	87992-500MG	500 mg
Tetratetracontane	-	-	88144-250MG	250 mg
Tetratriacontane	-	-	88152-250MG	250 mg
			88152-1G	1 g
Tetratriacontane	-	-	442710	1000 mg
Theaflavin	-	-	55016-1MG	1 mg
Theaflavin 3,3'-digallate	-	-	92223-1MG	1 mg
Theaflavin monogallate	-	-	53963-1MG	1 mg
Thymol	-	-	72477-500MG-F	500 mg
Tiamulin	-	-	34044-100MG-R	100 mg
Tiamulin fumarate	-	-	46959-100MG-R	100 mg
			46959-10G-R	10 g
Ticlopidine hydrochloride	-	-	T6654-1G	1 g
			T6654-5G	5 g
			T6654-25G	25 g
Tilimosin	-	-	33864-100MG-R	100 mg
Tinidazole	-	-	32553-10MG	10 mg
Tolbutamide	-	-	T0891-25G	25 g
			T0891-100G	100 g
			T0891-500G	500 g
Toltrazuril sulfone	-	-	33816-10MG	10 mg
Toluene	-	-	89680-5ML	5 mL
			89680-25ML	25 mL
Toluene solution	200 µg/mL in methanol	-	48620	1 mL
Toluene solution	5000 µg/mL in methanol	-	40084	1 mL
Toluene-d ₈	-	-	442809	1000 mg
Toluene-d ₈ solution	2000 µg/mL in methanol	-	48593	1 mL
Transformer oil (PCB free)	-	-	46956	10 × 5 mL
Triacontane	-	-	90270-250MG	250 mg
			90270-1G	1 g
Triamcinolone acetonide	-	-	T6501-250MG	250 mg
			T6501-1G	1 g
			T6501-5G	5 g
Trichloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47658-U	1 mL
1,1,1-Trichloroethane	-	-	48848-U	250 mg
1,1,1-Trichloroethane solution	200 µg/mL in methanol	-	48614	1 mL
1,1,1-Trichloroethane solution	5000 µg/mL in methanol	-	40010-U	1 mL
1,1,2-Trichloroethane	-	-	48513	5000 mg
Trichloroethylene	-	-	46267-5ML-R	5 mL
Trichloroethylene solution	5000 µg/mL in methanol	-	40085	1 mL
Trichlorofluoromethane	-	-	48541	5000 mg
2,4,6-Trichlorophenol solution	5000 µg/mL in methanol	-	40019	1 mL
3,4,5-Trichlorophenol	-	-	442373	25 mg
1,2,3-Trichloropropane	-	-	47794	1000 mg
1,2,3-Trichloropropane solution	200 µg/mL in methanol	-	48355	1 mL
1,2,3-Trichloropropane solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	47669-U	1 mL
2,4,5-Trichlorotoluene	-	-	442302	250 mg
Triclabendazole	-	-	32802-100MG	100 mg
Tricosane	-	-	91447-1G	1 g
			91447-5G	5 g
5-Tricosylresorcinol	-	-	03422-10MG	10 mg
Tridecane	-	-	91490-5ML	5 mL
			91490-50ML	50 mL
Tridecanoic acid	-	-	91988-5G	5 g
Trifluoroacetic acid	-	-	74564-1ML-F	1 mL
			74564-5ML-F	5 mL
			74564-10ML-F	10 mL
α,α,α-Trifluorotoluene solution	2000 µg/mL in methanol	-	48389	1 mL

Neats and Single-component Solutions

Description	Concentration		Cat. No.	Qty
Trigonelline hydrochloride	-	-	T5509-1G T5509-5G T5509-10G	1 g 5 g 10 g
Trimethoprim	-	-	46984-250MG	250 mg
1,2,3-Trimethylbenzene	-	-	45935-250MG	250 mg
1,2,4-Trimethylbenzene	-	-	47324	1000 mg
1,2,4-Trimethylbenzene solution	5000 µg/mL in methanol	-	41107	1 mL
1,3,5-Trimethylbenzene	-	-	442236	1000 mg
2,2,4-Trimethylpentane	-	-	59030-5ML 59030-10ML 59030-50ML	5 mL 10 mL 50 mL
Triphenyl phosphate	-	-	442829	1000 mg
Triphenyl phosphate solution	500 µg/mL in methyl <i>tert</i> -butyl ether	-	48064	1 mL
Tris(2,3-dibromopropyl) phosphate	-	-	442833	1000 mg
Tritriacontane	-	-	93435-250MG	250 mg
Tulobuterol hydrochloride	-	-	53541-10MG	10 mg
Tylosin tartrate	-	-	33847-250MG	250 mg
Undecane	-	-	94000-5ML 94000-25ML	5 mL 25 mL
Undecane	-	-	442714	1000 mg
Undecanoic acid	-	-	89764-1G-F	1 g
Valeraldehyde-2,4-dinitrophenylhydrazone solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	-	47185-U	1 mL
Valnemulin	-	-	32971-25MG	25 mg
Vedaprofen	-	-	32533-10MG	10 mg
Verbasco	-	-	56217-5MG	5 mg
Vinyl acetate	-		458486 48486	100 mg 1 g
Vinyl acetate solution	5000 µg/mL in acetonitrile	-	40327	1 mL
Vinyl chloride solution	200 µg/mL in methanol	-	48625	1 mL
Vinyl chloride solution	2000 µg/mL in methanol	-	500976	1 mL
4-Vinyl-1-cyclohexene	-	-	94950-5ML 94950-25ML	5 mL 25 mL
Vitexin	-	-	49513-10MG-F	10 mg
Warfarin™	-	-	A2250-10G	10 g
XTT sodium salt	-	-	X4251-100MG X4251-500MG	100 mg 500 mg
<i>o</i> -Xylene	-	-	95660-5ML 95660-10ML 95660-50ML	5 mL 10 mL 50 mL
<i>o</i> -Xylene solution	5000 µg/mL in methanol	-	40201	1 mL
<i>m</i> -Xylene	-	-	95670-5ML 95670-50ML	5 mL 50 mL
<i>m</i> -Xylene solution	5000 µg/mL in methanol	-	40202	1 mL
<i>p</i> -Xylene	-	-	95680-5ML 95680-50ML	5 mL 50 mL
<i>p</i> -Xylene solution	5000 µg/mL in methanol	-	40203	1 mL

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Chemical Services & Products

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Air Monitoring Standards

NIOSH and OSHA Methods for Workplace Atmospheres

Air Monitoring Standards

NIOSH and OSHA Methods for Workplace Atmospheres

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NIOSH 2001/OSHA 32: Analysis of Cresol in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
2-Methylphenol solution	5000 µg/mL in methanol	40250-U	1 mL
3-Methylphenol	5000 µg/mL in methanol	40251-U	1 mL
4-Methylphenol solution	5000 µg/mL in methanol	40252-U	1 mL

NIOSH 2005: Analysis of Nitrobenzenes in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
Nitrobenzene solution	5000 µg/mL in methanol	40054	1 mL

NIOSH 2501/OSHA 52: Analysis of Acrolein in Indoor Air

CAS No.	Compound	Cat. No.	Qty
107-02-8	Acrolein	458501	100 mg
		48501	5 g

NIOSH 2541/OSHA 52: Analysis of Formaldehyde in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
Formaldehyde Oxazolidine solution	2000 µg/mL in toluene	48414	1 mL

NIOSH 5503: Analysis of PCBs in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
Aroclor Mix 1	200 µg/mL each component in methanol <i>Aroclor 1016</i> <i>Aroclor 1232</i>	48861	1 mL
	<i>Aroclor 1248</i> <i>Aroclor 1260</i>		
Aroclor Mix 2	200 µg/mL each component in methanol <i>Aroclor 1221</i> <i>Aroclor 1242</i>	48862	1 mL
	<i>Aroclor 1254</i>		

NIOSH 5506, 5515: Analysis of PAHs in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 610 Polynuclear Aromatic Hydrocarbons Mixture	in methanol: methylene chloride (1:1)	48743	1 mL
	<i>Acenaphthene, 1000 µg/mL</i> <i>Acenaphthylene, 2000 µg/mL</i> <i>Anthracene, 100 µg/mL</i> <i>Benzo[a]anthracene, 100 µg/mL</i> <i>Benzo[b]fluoranthene, 200 µg/mL</i> <i>Benzo[k]fluoranthene, 100 µg/mL</i> <i>Benzo[ghi]perylene, 200 µg/mL</i> <i>Benzo[a]pyrene, 100 µg/mL</i>	458743	1 mL
	<i>Chrysene, 100 µg/mL</i> <i>Dibenz[a,h]anthracene, 200 µg/mL</i> <i>Fluoranthene, 200 µg/mL</i> <i>Fluorene, 200 µg/mL</i> <i>Indeno[1,2,3-cd]pyrene, 100 µg/mL</i> <i>Naphthalene, 1000 µg/mL</i> <i>Phenanthrene, 100 µg/mL</i> <i>Pyrene, 100 µg/mL</i>		

Air Monitoring Standards

NIOSH and OSHA Methods for Workplace Atmospheres

NIOSH 5519: Analysis of Endrin in Indoor Air

CAS No.	Compound	Cat. No.	Qty
72-20-8	Endrin, analytical standard	49032	100 mg

OSHA 80: Analysis of Methylene Chloride in Indoor Air

CAS No.	Compound	Cat. No.	Qty
75-09-2	Dichloromethane, analytical standard, stabilized	48538	5000 mg

OSHA 32: Analysis of Phenol in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
Phenol solution	500 µg/mL in methanol	48688	1 mL
standard type calibration			
Phenol solution	5000 µg/mL in methanol	40063	1 mL

OSHA 51: Analysis of Vinyl Acetate in Indoor Air

CAS No.	Compound	Cat. No.	Qty
108-05-4	Vinyl acetate	458486 48486	100 mg 1 g

OSHA 42, OSHA 47: Analysis of Isocyanates in Indoor Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
<i>N,N'</i> -(2-Methyl-1,3-phenylene)bis(4-(2-pyridinyl)-1-piperazinecarboxamide) (derivative of 2,6-TDIP)	1000 µg/mL in DMSO	48144	1 mL
<i>N,N'</i> -(4-Methyl-1,3-phenylene)bis(4-(2-pyridinyl)-1-piperazinecarboxamide) (derivative of 2,4-TDIP)	1000 µg/mL in DMSO	48145	1 mL
<i>N,N'</i> -1,6-Hexanediybis(4-(2-pyridinyl)-1-piperazinecarboxamide) solution (derivative of 1,6-HDIP)	1000 µg/mL in DMSO	48146	1 mL
<i>N,N'</i> -(Methylenediphenylene)bis(4-(2-pyridinyl)-1-piperazinecarboxamide) (derivative of 4,4'-MDIP)	1000 µg/mL in DMSO	48147	1 mL

American Society for Testing and Materials (ASTM) Methods

The following standards are for use with methods developed under ASTM Committee D-22, described in the Annual Book of ASTM Methods, Volume 11.03, Atmospheric Analysis, Occupational Health and Safety. The standards are quantitative formulations for use as chromatographic calibration or spiking solutions. Products include a Certificate of Analysis describing lot-specific production and analytical information. Free data packets are available for most of these products. Data packets contain weight, purity and testing data for raw materials and final production. Documentation requests may be made by e-mail to techservice@sial.com.

ASTM® D4861 Method Description: Analysis of PCBS in Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
Aroclor Mix 1	200 µg/mL each component in methanol <i>Aroclor 1016</i> <i>Aroclor 1232</i>	48861	1 mL
		<i>Aroclor 1248</i> <i>Aroclor 1260</i>	
Aroclor Mix 2	200 µg/mL each component in methanol <i>Aroclor 1221</i> <i>Aroclor 1242</i>	48862	1 mL
		<i>Aroclor 1254</i>	

Air Monitoring Standards

American Society for Testing and Materials (ASTM) Methods

ASTM® D4947 Method Description: Analysis of Chlordane and Heptachlor in Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
Chlordane (mixture of isomers)	200 µg/mL in isooctane	47554-U 48984	1 mL 10 mL
Heptachlor solution	200 µg/mL in isooctane	48964	10 mL

ASTM® D5197 Method Description: Analysis of Aldehydes in Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
TO11/IP-6A Aldehyde/Ketone-DNPH Mix	15 µg/mL each component in acetonitrile (aldehyde equivalent)	47285-U	1 mL
	<i>Acetaldehyde-2,4-dinitrophenylhydrazone</i> <i>Acetone-2,4-dinitrophenylhydrazone</i> <i>Acrolein-2,4-dinitrophenylhydrazone</i> <i>Benzaldehyde-2,4-dinitrophenylhydrazone</i> <i>Butyraldehyde-2,4-dinitrophenylhydrazone</i> <i>Crotonaldehyde-2,4-dinitrophenylhydrazone</i> <i>2,5-Dimethylbenzaldehyde 2,4-dinitrophenylhydrazone</i> <i>Formaldehyde-2,4-dinitrophenylhydrazone</i>	<i>Hexanal 2,4-dinitrophenylhydrazone</i> <i>Hexaldehyde-2,4-dinitrophenylhydrazone</i> <i>Isovaleraldehyde 2,4-dinitrophenylhydrazone</i> <i>Propionaldehyde-2,4-dinitrophenylhydrazone</i> <i>o-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>m-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>Valeraldehyde-2,4-dinitrophenylhydrazone</i> <i>p-Tolualdehyde 2,4-dinitrophenylhydrazone</i>	

ASTM® D5578 Method Description: Analysis of Ethylene Oxide in Air

Description	Concentration	Cat. No.	Qty
standard type calibration			
2-Bromoethanol solution	2000 µg/mL in toluene	48874	1 mL

ASTM® D5836 Method Description: Standard Test Method for Determination of 2,4-TDI and 2,6-TDI in Workplace Atmospheres

Description	Concentration	Cat. No.	Qty
standard type calibration			
<i>N,N'</i> -(2-Methyl-1,3-phenylene)bis(4-(2-pyridinyl)-1-piperazinecarboxamide) (derivative of 2,6-TDIP)	1000 µg/mL in DMSO	48144	1 mL
<i>N,N'</i> -(4-Methyl-1,3-phenylene)bis(4-(2-pyridinyl)-1-piperazinecarboxamide) (derivative of 2,4-TDIP)	1000 µg/mL in DMSO	48145	1 mL
<i>N,N'</i> -1,6-Hexanediybis(4-(2-pyridinyl)-1-piperazinecarboxamide) solution (derivative of 1,6-HDIP)	1000 µg/mL in DMSO	48146	1 mL
<i>N,N'</i> -(Methylenediphenylene)bis(4-(2-pyridinyl)-1-piperazinecarboxamide) (derivative of 4,4'-MDIP)	1000 µg/mL in DMSO	48147	1 mL

California Air Resources Board (CARB) Methods

Analysis of Carbonyls in Ambient Air

California Air Resources Board (CARB) – Our quantitative formulations were developed to support the analysis of aldehydes in ambient air by CARB Method 1004. Analysis is of the dinitrophenylhydrazine (DNPH) derivatives by HPLC-UV.

Concentrations stated are of the equivalent carbonyl before derivatization, except where noted. The Certificate of Analysis accompanying these products states both DNPH derivatized and non-derivatized concentrations.

Description	Concentration	Cat. No.	Qty
standard type calibration			
CARB Carbonyl-DNPH Mix 1	in acetonitrile (varied, aldehyde & ketone equivalents)	47649-U	1 mL
	<i>Acetaldehyde-2,4-dinitrophenylhydrazone, 1000 µg/mL</i> <i>Acetone-2,4-dinitrophenylhydrazone, 500 µg/mL</i> <i>Acrolein-2,4-dinitrophenylhydrazone, 500 µg/mL</i> <i>Benzaldehyde-2,4-dinitrophenylhydrazone, 500 µg/mL</i>	<i>Butyraldehyde-2,4-dinitrophenylhydrazone, 500 µg/mL</i> <i>Formaldehyde-2,4-dinitrophenylhydrazone, 1500 µg/mL</i> <i>Propionaldehyde-2,4-dinitrophenylhydrazone, 500 µg/mL</i>	

Air Monitoring Standards

California Air Resources Board (CARB) Methods: *Analysis of Carbonyls in Ambient Air*

Description	Concentration	Cat. No.	Qty
CARB Method 1004 DNPH Mix 1	3 µg/mL in acetonitrile (aldehyde & ketone equivalents) Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone 2-Butanone-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone	47650-U Formaldehyde-2,4-dinitrophenylhydrazone Hexaldehyde-2,4-dinitrophenylhydrazone Methacrolein-2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone m-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	1 mL
CARB Method 1004 DNPH Mix 2	30 µg/mL in acetonitrile (aldehyde & ketone equivalents) Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone 2-Butanone-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone	47651-U Formaldehyde-2,4-dinitrophenylhydrazone Hexaldehyde-2,4-dinitrophenylhydrazone Hexanal 2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone m-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	1 mL

Analysis of Automobile Exhaust

The following standards were developed in response to European requests for working and calibration check standards for ambient air analysis of carbonyl emissions from auto exhaust. Methods for this analysis are equivalent to CARB 1004. Concentrations stated are of the equivalent carbonyl before derivatization. The Certificate of Analysis accompanying these products states both DNPH derivatized and non-derivatized concentrations.

Description	Concentration	Cat. No.	Qty
standard type calibration			
Carbonyl-DNPH Mix 1	20 µg/mL in acetonitrile (except where indicated; aldehyde & ketone equivalents) Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone 2-Butanone-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone	47672-U Formaldehyde-2,4-dinitrophenylhydrazone, 40 µg/mL Hexaldehyde-2,4-dinitrophenylhydrazone Methacrolein-2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone p-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	1 mL
Carbonyl-DNPH Mix 2	2 µg/mL in acetonitrile (except where indicated; aldehyde & ketone equivalents) Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone 2-Butanone-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone	47671-U Cyclohexanone 2,4-dinitrophenylhydrazone, 5 µg/mL Formaldehyde-2,4-dinitrophenylhydrazone, 4 µg/mL Hexaldehyde-2,4-dinitrophenylhydrazone Methacrolein-2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone p-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	1 mL

DNPH Carbonyl Derivatives

These solutions of DNPH derivatives are designed as quantitative calibration mixtures where a multi-component solution is not suitable. Packaged in an amber glass ampule.

Description	Concentration	Cat. No.	Qty
standard type calibration			
Acetaldehyde-2,4-dinitrophenylhydrazone solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	47340-U 4M7340-U	1 mL 5 × 1 mL
Acetaldehyde-2,4-DNPH	-	442434	100 mg
Acetone-2,4-DNPH	-	442436	50 mg
Acetone 2,4-DNPH solution	1000 µg/mL in acetonitrile (as ketone equivalent)	47341 4M7341	1 mL 5 × 1 mL
Acrolein-2,4-DNPH	-	442441	25 mg
Acrolein-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	47342	1 mL
Benzaldehyde-2,4-DNPH	-	442469	100 mg
Benzaldehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47343	1 mL
2-Butanone-2,4-dinitrophenylhydrazone	-	442339	100 mg
2-Butanone-2,4-DNPH solution	100 µg/mL in acetonitrile (as ketone equivalent)	47344	1 mL
2-(4-tert-Butylbenzyl)propionaldehyde	-	95338-10MG-F	10 mg
Butyraldehyde-2,4-DNPH	-	442504	100 mg
Butyraldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	47345-U	1 mL
Crotonaldehyde-2,4-DNPH	-	442529	100 mg
Crotonaldehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47175-U	1 mL
Cyclohexanone-2,4-DNPH	-	442533	100 mg
Cyclohexanone-2,4-DNPH solution	500 µg/mL in acetonitrile (as ketone equivalent)	47673-U	1 mL

Air Monitoring Standards

DNPH Carbonyl Derivatives

Description	Concentration	Cat. No.	Qty
Decanal 2,4-dinitrophenylhydrazone	-	33852-100MG	100 mg
2,5-Dimethylbenzaldehyde-2,4-DNPH	-	442321-U	100 mg
Formaldehyde-2,4-DNPH	-	442597	100 mg
Formaldehyde-2,4-DNPH Solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	CRM47177	1 pkg
Formaldehyde-2,4-DNPH Solution	100 µg/mL in acetonitrile	CRM4M7177	1 pkg
Glutaraldehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47564-U	1 mL
Heptanal 2,4-dinitrophenylhydrazone	-	33848-100MG	100 mg
Hexaldehyde-2,4-DNPH	-	442614	100 mg
Hexaldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	47178-U	1 mL
Isobutyraldehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47886	1 mL
Isovaleraldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	47179	1 mL
Methacrolein-2,4-DNPH	-	442639	100 mg
Methacrolein-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47180-U	1 mL
Nonanal 2,4-dinitrophenylhydrazone	-	33851-100MG	100 mg
Octanal 2,4-dinitrophenylhydrazone	-	33849-100MG	100 mg
o-Phthalaldehyde-(DNPH) ₂ solution	10 µg/mL in acetonitrile: DMSO (7:3) (as aldehyde equivalent)	47032-U	3 × 2 mL
Propionaldehyde-2,4-DNPH	-	442768	100 mg
Propionaldehyde-2,4-DNPH solution	1000 µg/mL in acetonitrile (as aldehyde equivalent)	47181	1 mL
Pyridine-4-Aldehyde-DNPH Solution	1 mM in acetonitrile: DMSO, 4:1 (as aldehyde equivalent)	40081-U	3 × 2 mL
Pyridine-2-Aldehyde-DNPH Standard	in acetonitrile (aldehyde, equivalent)	40117-U	3 × 2 mL
Succinaldehydic acid 2,4-dinitrophenylhydrazone	-	32876-50MG	50 mg
o-Tolualdehyde-2,4-DNPH	-	442722	100 mg
o-Tolualdehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47182	1 mL
m-Tolualdehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47183	1 mL
p-Tolualdehyde-2,4-DNPH	(aldehyde, equivalent)	442735	100 mg
p-Tolualdehyde-2,4-DNPH solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47184-U	1 mL
Valeraldehyde-2,4-DNPH	-	442834	100 mg
Valeraldehyde-2,4-dinitrophenylhydrazone solution	100 µg/mL in acetonitrile (as aldehyde equivalent)	47185-U	1 mL

DAIH Carbonyl Derivatives

These 2-diphenylacetyl-1,3-indanion-1-hydrazone (DAIH) derivatives are an excellent choice for preparing calibration standards for use when monitoring the presence of aldehydes and ketones by HPLC, using a fluorescence detector.

CAS No.	Compound	Cat. No.	Qty
101228-21-1	Acetaldehyde, DAIH derivative, analytical standard	14423-50MG	50 mg
6287-79-2	Acetone, DAIH derivative, analytical standard	02819-50MG	50 mg
101611-80-7	Acrolein, DAIH derivative, analytical standard	13173-50MG	50 mg
103480-19-9	Crotonaldehyde, DAIH derivative, analytical standard	55556-50MG	50 mg
108041-11-8	Cyclohexanone, DAIH derivative, analytical standard	91547-50MG	50 mg
1119449-21-6	Formaldehyde, DAIH derivative, analytical standard	06947-50MG	50 mg
1119449-20-5	Propionaldehyde, DAIH derivative, analytical standard	51299-50MG	50 mg

Oxime Carbonyl Derivatives

Oxime derivatives are formed by reacting carbonyls with O-(2,3,4,5,6-pentafluorobenzyl)hydroxylamine (PFBHA). The resulting compounds provide a much more stable carbonyl derivative than DNPH for working at high temperatures. These derivatives are appropriate for applications using gas chromatography.

CAS No.	Compound	Cat. No.	Qty
899828-53-6	Acetone O-pentafluorophenylmethyl-oxime, analytical standard	44114-10MG 44114-50MG	10 mg 50 mg
932710-55-9	Acrolein O-pentafluorophenylmethyl-oxime, analytical standard	65819-10MG	10 mg
86356-73-2	Formaldehyde O-pentafluorophenylmethyl-oxime, analytical standard	41558-10MG	10 mg
932710-48-0	Glutaraldehyde bis-(O-pentafluorophenylmethyloxime), analytical standard	03718-10MG 03718-50MG	10 mg 50 mg
932710-53-7	Propionaldehyde O-pentafluorophenylmethyl-oxime, analytical standard	43508-10MG	10 mg

Air Monitoring Standards

Isocyanate Monomer DBA Derivatives

Isocyanate Monomer DBA Derivatives

We are pleased to introduce a new line of di-n-butylamine(DBA) and d₉-DBA derivatized isocyanate LC-MS calibration standards to complement our new ASSET™ EZ-4 NCO Dry sampler. A Certificate of Analysis is provided with each standard. Please visit our web site for future updates to this new line of standards in the coming months.

To learn more about our new ASSET™ EZ-4 NCO Dry sampler, please see the Air Monitoring section of this catalog.

Description	Concentration	Cat. No.	Qty
standard type calibration			
d ₉ -DBA Isocyanate Internal Standard Mix	in acetonitrile: methanol (99:1) (varied conc.) <i>Isocyanic acid-di-n-butylamine-d₉</i> (ICA-DBA-d ₉), 1 µg/mL <i>Ethyl isocyanate-di-n-butylamine-d₉</i> (EIC-DBA-d ₉), 1 µg/mL <i>Hexamethylene diisocyanate-2(di-n-butylamine-d₉)</i> (HDI-2(DBA-d ₉)), 1 µg/mL <i>Isophorone diisocyanate-2(di-n-butylamine-d₉) isomer 1</i> (IPDI-2(DBA-d ₉)), 1 µg/mL <i>Isophorone diisocyanate-2(di-n-butylamine-d₉) isomer 2</i> (IPDI-2(DBA-d ₉)), .28 µg/mL <i>4,4'-Methylenediphenyl diisocyanate-2(di-n-butylamine-d₉)</i> (4,4'-MDI-2(DBA-d ₉)), 1 µg/mL	40142-U	6 × 1 mL
DBA Isocyanate Mix	in acetonitrile: methanol (99:1) (varied conc.) <i>Isocyanic acid-di-n-butylamine</i> (ICA-DBA), 1 µg/mL <i>Ethyl isocyanate-di-n-butylamine</i> (EIC-DBA), 1 µg/mL <i>Hexamethylene diisocyanate-2(di-n-butylamine)</i> (HDI-2(DBA)), 1 µg/mL <i>Isophorone isocyanate-2(di-n-butylamine) isomer 1</i> (IPDI-2(DBA)), 1 µg/mL <i>Isophorone isocyanate-2(di-n-butylamine) isomer 2</i> (IPDI-2(DBA)), .4 µg/mL <i>4,4'-Methylenediphenyl diisocyanate-2(di-n-butylamine)</i> (4,4'-MDI-2(DBA)), 1 µg/mL	40141-U	6 × 1 mL
DBA Isocyanate Standards Kit	in acetonitrile: methanol (99:1) (varied conc.) <i>DBA Isocyanate Mix</i> (Supelco 40141-U) <i>d₉-DBA Isocyanate Internal Standard Mix</i> (Supelco 40142-U)	40143-U	1 kit

Multi-purpose Solutions

The following standards are suitable for use with a wide range of chromatographic air sample determinations. The standards are quantitative formulations. Products include a Certificate of Analysis describing lot-specific production and analytical information.

Description	Concentration	Cat. No.	Qty
standard type calibration			
Freon® 113 solution	2000 µg/mL in methanol	47944	1 mL
Freon® 113 solution	1000 µg/mL in methanol	48411	1 mL
Freon® 123 solution	1000 µg/mL in methanol	48412	1 mL
2-Butanone	2000 µg/mL in methanol: water (9:1)	48877	1 mL
Ethylene oxide solution	50 mg/mL in methylene chloride	48891	1 mL
Ethylene oxide solution	50 mg/mL in methanol	48838	1 mL
Ethylene oxide solution	2000 µg/mL in methylene chloride	47949	1 mL
Formaldehyde Oxazolidine solution	2000 µg/mL in toluene	48414	1 mL
Freon® Mix	10,000 µg/mL each component in ethyl acetate <i>Chlorodifluoromethane</i> <i>Dichlorodifluoromethane</i> <i>Dichlorofluoromethane</i>	48420-U	1 mL
	<i>1,2-Dichlorotetrafluoroethane</i> <i>Trichlorofluoromethane</i>		

Air Monitoring Standards

Japanese Indoor Air Methods

Japanese Indoor Air Methods

Use these mixtures to monitor indoor air for the presence of volatile organics compounds (VOCs). The mixtures are gravimetrically prepared and quantitatively analyzed by GC. A certificate of analysis accompanies each standard.

Description	Concentration	Cat. No.	Qty
standard type calibration			
Indoor Air Standard, 50 Component	1000 µg/mL each component in methanol: water (97:3)	49149-U	1 mL
	<i>Acetone</i> <i>Benzene</i> <i>Bromodichloromethane</i> <i>Butyl acetate</i> <i>1-Butanol</i> <i>2-Butanone</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>Decane</i> <i>Decanal</i> <i>1,4-Dichlorobenzene</i> <i>1,2-Dichloroethane</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>2,4-Dimethylpentane</i> <i>Dodecane</i> <i>Ethylbenzene</i> <i>Ethanol</i> <i>Ethyl acetate</i> <i>2-Ethyltoluene</i> <i>3-Ethyltoluene</i> <i>4-Ethyltoluene</i> <i>Heptane</i> <i>Hexane</i> <i>Hexadecane</i>	<i>(R)-(+)-Limonene</i> <i>Mesitylene</i> <i>4-Methyl-2-pentanone</i> <i>Nonanal</i> <i>Nonane</i> <i>Octane</i> <i>Pentadecane</i> <i>(1S)-(-)-alpha-Pinene</i> <i>(-)-beta-Pinene</i> <i>1-Propanol</i> <i>2-Propanol</i> <i>Styrene</i> <i>Tetrachloroethylene</i> <i>Tetradecane</i> <i>Durene</i> <i>Toluene</i> <i>Trichloroethylene</i> <i>Tridecane</i> <i>1,2,3-Trimethylbenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>2,2,4-Trimethylpentane</i> <i>Undecane</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
standard type yes (calibration)			
Indoor Air Standard, 50 Component	100 µg/mL in methanol: water (19:1)	49148-U 4M9148-U	1 mL 3 × 1 mL
	<i>Acetone</i> <i>Benzene</i> <i>Bromodichloromethane</i> <i>Butyl acetate</i> <i>1-Butanol</i> <i>2-Butanone</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>Decane</i> <i>Decanal</i> <i>1,4-Dichlorobenzene</i> <i>1,2-Dichloroethane</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>2,4-Dimethylpentane</i> <i>Dodecane</i> <i>Ethylbenzene</i> <i>Ethanol</i> <i>Ethyl acetate</i> <i>2-Ethyltoluene</i> <i>3-Ethyltoluene</i> <i>4-Ethyltoluene</i> <i>Heptane</i> <i>Hexane</i> <i>Hexadecane</i>	<i>(R)-(+)-Limonene</i> <i>Mesitylene</i> <i>4-Methyl-2-pentanone</i> <i>Nonanal</i> <i>Nonane</i> <i>Octane</i> <i>Pentadecane</i> <i>(1S)-(-)-alpha-Pinene</i> <i>beta-Pinene</i> <i>1-Propanol</i> <i>2-Propanol</i> <i>Styrene</i> <i>Tetrachloroethylene</i> <i>Tetradecane</i> <i>Durene</i> <i>Toluene</i> <i>Trichloroethylene</i> <i>Tridecane</i> <i>1,2,3-Trimethylbenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>2,2,4-Trimethylpentane</i> <i>Undecane</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	

Air Monitoring Standards

U.S. EPA Indoor Air Pollutant Methods: *Compendium of Methods for the Determination of Air*

U.S. EPA Indoor Air Pollutant Methods

Compendium of Methods for the Determination of Air

The following standards are for use with EPA document number EPA/600/4-90/010. The standards are quantitative formulations for use as chromatographic calibration or spiking solutions. Products include a Certificate of Analysis describing lot-specific production and analytical information. Free data packets are available for these products. Documentation requests should be made by e-mail to techservice@sial.com.


IP1 : Analysis of Volatile Organics (BP 80-200C) in Indoor Air by GC-MS

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA TO-1 Toxic Organic Mix 1A	2 mg/mL each component in methanol Benzene Cumene Ethylbenzene Heptane 1-Heptene	Toluene o-Xylene m-Xylene p-Xylene	48896	1 mL
EPA TO-1 Toxic Organic Mix 1B	2 mg/mL each component in methanol Acrylonitrile Allyl chloride Bromobenzene Bromoforn Carbon tetrachloride Chlorobenzene Chloroform	1,2-Dibromoethane 1,2-Dichloroethane 1,2-Dichloropropane 1,3-Dichloropropane Tetrachloroethylene 1,1,1-Trichloroethane Trichloroethylene	48897	1 mL

IP6: Analysis of Aldehydes and Ketones in Indoor Air by HPLC/UV

Description	Concentration		Cat. No.	Qty
standard type calibration				
TO11/IP-6A Aldehyde/Ketone-DNPH Mix	15 µg/mL each component in acetonitrile (aldehyde equivalent) Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone 2,5-Dimethylbenzaldehyde 2,4-dinitrophenylhydrazone Formaldehyde-2,4-dinitrophenylhydrazone	Hexanal 2,4-dinitrophenylhydrazone Hexaldehyde-2,4-dinitrophenylhydrazone Isovaleraldehyde 2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone o-Tolualdehyde 2,4-dinitrophenylhydrazone m-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone p-Tolualdehyde 2,4-dinitrophenylhydrazone	47285-U	1 mL
Aldehyde/ketone-DNPH TO11/IP-6A Mix	15 µg/mL each component in acetonitrile (aldehyde equivalent) Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone 2,5-Dimethylbenzaldehyde 2,4-dinitrophenylhydrazone Formaldehyde-2,4-dinitrophenylhydrazone	Hexaldehyde-2,4-dinitrophenylhydrazone Isovaleraldehyde 2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone o-Tolualdehyde 2,4-dinitrophenylhydrazone m-Tolualdehyde 2,4-dinitrophenylhydrazone p-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	4M7285-U	3 × 1 mL

IP7: Analysis of Polynuclear Aromatic Hydrocarbons in Indoor Air by HPLC/UV

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 610 Polynuclear Aromatic Hydrocarbons Mixture	in methanol: methylene chloride (1:1) Acenaphthene, 1000 µg/mL Acenaphthylene, 2000 µg/mL Anthracene, 100 µg/mL Benz[a]anthracene, 100 µg/mL Benzo[b]fluoranthene, 200 µg/mL Benzo[k]fluoranthene, 100 µg/mL Benzo[ghi]perylene, 200 µg/mL Benzo[a]pyrene, 100 µg/mL	Chrysene, 100 µg/mL Dibenz[a,h]anthracene, 200 µg/mL Fluoranthene, 200 µg/mL Fluorene, 200 µg/mL Indeno[1,2,3-cd]pyrene, 100 µg/mL Naphthalene, 1000 µg/mL Phenanthrene, 100 µg/mL Pyrene, 100 µg/mL	 48743 4S8743	1 mL 1 mL

Air Monitoring Standards

U.S. EPA Indoor Air Pollutant Methods: *Compendium of Methods for the Determination of Air*

IP8: Analysis of Organochlorine Pesticides in Indoor Air by GC-ECD

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Pesticide Mix	in methanol: methylene chloride (98:2) (varied) Aldrin, 10 µg/mL α-BHC β-BHC Lindane, 10 µg/mL δ-BHC 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane, 60 µg/mL 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane, 20 µg/mL 4,4'-DDT, 60 µg/mL	48858-U Dieldrin, 20 µg/mL α-Endosulfan, 20 µg/mL β-Endosulfan, 20 µg/mL Endosulfan sulfate, 60 µg/mL Endrin, 20 µg/mL Endrin aldehyde, 60 µg/mL Heptachlor, 10 µg/mL Heptachlor exo-epoxide, 10 µg/mL	1 mL

U.S. EPA Toxic Organic Air Monitoring Methods

Toxic Organic (TO) Compounds in Air

TO-1: Volatile Organic Compounds by Capillary GC-MS

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA TO-1 Toxic Organic Mix 1A	2 mg/mL each component in methanol Benzene Cumene Ethylbenzene Heptane 1-Heptene	48896 Toluene o-Xylene m-Xylene p-Xylene	1 mL
EPA TO-1 Toxic Organic Mix 1B	2 mg/mL each component in methanol Acrylonitrile Allyl chloride Bromobenzene Bromoform Carbon tetrachloride Chlorobenzene Chloroform	48897 1,2-Dibromoethane 1,2-Dichloroethane 1,2-Dichloropropane 1,3-Dichloropropane Tetrachloroethylene 1,1,1-Trichloroethane Trichloroethylene	1 mL

TO-2: Volatile Organic Compounds by Capillary GC-MS

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Toxic Organic Mix 2A	2 mg/mL each component in methanol Dichloromethane Vinyl chloride	48898 1,1-Dichloroethylene	1 mL

TO-4/TO-10: Organochlorine Pesticides by Capillary GC-MD (Multiple Detectors)

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Pesticide Mix	in methanol: methylene chloride (98:2) (varied) Aldrin, 10 µg/mL α-BHC β-BHC Lindane, 10 µg/mL δ-BHC 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane, 60 µg/mL 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane, 20 µg/mL 4,4'-DDT, 60 µg/mL	48858-U Dieldrin, 20 µg/mL α-Endosulfan, 20 µg/mL β-Endosulfan, 20 µg/mL Endosulfan sulfate, 60 µg/mL Endrin, 20 µg/mL Endrin aldehyde, 60 µg/mL Heptachlor, 10 µg/mL Heptachlor exo-epoxide, 10 µg/mL	1 mL

Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: *Toxic Organic (TO) Compounds in Air*

TO-5/TO-11: Aldehydes and Ketones by HPLC-UV

Description	Concentration	Cat. No.	Qty
standard type calibration			
TO11/IP-6A Aldehyde/Ketone-DNPH Mix	15 µg/mL each component in acetonitrile (aldehyde equivalent)	47285-U	1 mL
	<i>Acetaldehyde-2,4-dinitrophenylhydrazone</i> <i>Acetone-2,4-dinitrophenylhydrazone</i> <i>Acrolein-2,4-dinitrophenylhydrazone</i> <i>Benzaldehyde-2,4-dinitrophenylhydrazone</i> <i>Butyraldehyde-2,4-dinitrophenylhydrazone</i> <i>Crotonaldehyde-2,4-dinitrophenylhydrazone</i> <i>2,5-Dimethylbenzaldehyde 2,4-dinitrophenylhydrazone</i> <i>Formaldehyde-2,4-dinitrophenylhydrazone</i>	<i>Hexanal 2,4-dinitrophenylhydrazone</i> <i>Hexaldehyde-2,4-dinitrophenylhydrazone</i> <i>Isovaleraldehyde 2,4-dinitrophenylhydrazone</i> <i>Propionaldehyde-2,4-dinitrophenylhydrazone</i> <i>o-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>m-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>Valeraldehyde-2,4-dinitrophenylhydrazone</i> <i>p-Tolualdehyde 2,4-dinitrophenylhydrazone</i>	

TO-7: N-Nitrosodimethylamine by Capillary GC-MS

Description	Concentration	Cat. No.	Qty
standard type calibration			
N-Nitrosodimethylamine	-	48552	100 mg
N-Nitrosodimethylamine solution	200 µg/mL in methanol	48670	1 mL
N-Nitrosodimethylamine solution	5000 µg/mL in methanol	40059	1 mL

TO-8: Cresol and Phenol by HPLC-UV-EC-FI

Description	Concentration	Cat. No.	Qty
standard type calibration			
2-Methylphenol solution	5000 µg/mL in methanol	40250-U	1 mL
3-Methylphenol	5000 µg/mL in methanol	40251-U	1 mL
4-Methylphenol solution	5000 µg/mL in methanol	40252-U	1 mL
Phenol solution	5000 µg/mL in methanol	40063	1 mL

TO-11 Aldehydes/ketones by HPLC-UV

Description	Concentration	Cat. No.	Qty
EPA TO-11A Six Component Carbonyl-DNPH Mix	15 µg/mL each component in acetonitrile (as aldehyde & ketone equivalents)	48149-U	1 mL
	<i>Acetaldehyde-2,4-dinitrophenylhydrazone</i> <i>Acetone-2,4-dinitrophenylhydrazone</i> <i>Acrolein-2,4-dinitrophenylhydrazone</i>	<i>Crotonaldehyde-2,4-dinitrophenylhydrazone</i> <i>Formaldehyde-2,4-dinitrophenylhydrazone</i> <i>Propionaldehyde-2,4-dinitrophenylhydrazone</i>	
Aldehyde/ketone-DNPH TO11/IP-6A Mix	15 µg/mL each component in acetonitrile (aldehyde, equivalent)	47285-U 4M7285-U	1 mL 3 × 1 mL
	<i>Acetaldehyde-2,4-dinitrophenylhydrazone</i> <i>Acetone-2,4-dinitrophenylhydrazone</i> <i>Acrolein-2,4-dinitrophenylhydrazone</i> <i>Benzaldehyde-2,4-dinitrophenylhydrazone</i> <i>Butyraldehyde-2,4-dinitrophenylhydrazone</i> <i>Crotonaldehyde-2,4-dinitrophenylhydrazone</i> <i>2,5-Dimethylbenzaldehyde 2,4-dinitrophenylhydrazone</i> <i>Formaldehyde-2,4-dinitrophenylhydrazone</i>	<i>Hexaldehyde-2,4-dinitrophenylhydrazone</i> <i>Isovaleraldehyde 2,4-dinitrophenylhydrazone</i> <i>Propionaldehyde-2,4-dinitrophenylhydrazone</i> <i>o-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>m-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>p-Tolualdehyde 2,4-dinitrophenylhydrazone</i> <i>Valeraldehyde-2,4-dinitrophenylhydrazone</i>	

TO-13: Polynuclear Aromatic Hydrocarbons by Capillary GC-MS

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA TCL PAH Mix	in acetonitrile: methanol (9:1) (varied)	49156	1 mL
	<i>Acenaphthene, 1000 µg/mL</i> <i>Acenaphthylene, 500 µg/mL</i> <i>Anthracene, 20 µg/mL</i> <i>Benz[a]anthracene, 50 µg/mL</i> <i>Benzo[b]fluoranthene, 20 µg/mL</i> <i>Benzo[k]fluoranthene, 20 µg/mL</i> <i>Benzo[ghi]perylene, 80 µg/mL</i> <i>Benzo[a]pyrene, 50 µg/mL</i>	<i>Chrysene, 50 µg/mL</i> <i>Dibenz[a,h]anthracene, 200 µg/mL</i> <i>Fluoranthene, 50 µg/mL</i> <i>Fluorene, 100 µg/mL</i> <i>Indeno[1,2,3-cd]pyrene, 50 µg/mL</i> <i>Naphthalene, 500 µg/mL</i> <i>Phenanthrene, 40 µg/mL</i> <i>Pyrene, 100 µg/mL</i>	

Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: *TO-14 Air Monitoring Gas Standards**TO-14 Air Monitoring Gas Standards*

Air Liquide America Speciality Gases Toxic-Organic (TO)-14 gas calibration standards provide reliable, accurate instrument calibration when measuring volatile and semivolatile organic compounds (VOCs) in ambient air. These standards meet the requirements of U.S. Environmental Protection Agency's Method TO-14, "Determination of VOCs in Ambient Air Using Specially Prepared Canisters with Subsequent Analysis by gas Chromatography".

The gas blends are packaged in SCOTTY 110 L high pressure, transportable, laboratory-size cylinders. Where available, the components in TO-14 gas calibration blends are traceable to NIST reference mixtures (NIST SRM 1804). All are certified for superior stability and accuracy. A certificate of accuracy is supplied with each gas cylinder purchase. Additional copies of these certificates can be obtained at www.scottycerts.com.

Shelf life: 1 year from date of manufacture.

Scotty 110 L Gas Cylinder Specifications (pi-marked*)

Contents: 110 Liters (3.9cf)

Pressure: 1800 psig (124 bar)

Outlet Fitting: CGA 180

Weight: 2.2lbs/1kg

Dimensions: 3.25 inches D x 11.625 inches H (82.6mm x 295.3mm)

U.S. D.O.T.

Specs: 3AL2216

*Pi-marked cylinders comply with the requirements of the Transportable Equipment Directive (TPED) for movement in the EU.

Description	Concentration	Cat. No.	Qty
EPA TO-14 Calibration Mix 1 (39 components)	100 ppb each component in nitrogen	41900-U	110 L
	<i>Benzene</i> <i>Bromomethane</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroethane</i> <i>Chloroform</i> <i>Chloromethane</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Dichlorodifluoromethane</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i>	<i>1,2-Dichlorotetrafluoroethane</i> <i>Ethylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Styrene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>Trichlorofluoromethane</i> <i>1,1,2-Trichloro-1,2,2-trifluoroethane</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene (Supelco 47281)</i> <i>Vinyl chloride</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
EPA TO-14 Calibration Mix 1 (39 components)	1 ppm in nitrogen	509981	110 L
	<i>Benzene</i> <i>Bromomethane</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroethane</i> <i>Chloroform</i> <i>Chloromethane</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Dichlorodifluoromethane</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i>	<i>1,2-Dichlorotetrafluoroethane</i> <i>Ethylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Styrene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>Trichlorofluoromethane</i> <i>1,1,2-Trichloro-1,2,2-trifluoroethane</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene (Supelco 47281)</i> <i>Vinyl chloride</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
EPA TO-14A Aromatic Subset Mix	100 ppb in nitrogen	41901	110 L
	<i>Benzene</i> <i>Chlorobenzene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Ethylbenzene</i> <i>Styrene</i>	<i>Toluene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>Mesitylene</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
EPA TO-14A CFC/HCFC Subset Mix	100 ppb in nitrogen	41903	110 L
	<i>1,2-Dichlorotetrafluoroethane</i> <i>Trichlorofluoromethane</i>	<i>1,1,2-Trichloro-1,2,2-trifluoroethane</i> <i>Halocarbon 12</i>	
EPA TO-14A Reactive Subset Mix	100 ppb in nitrogen	41911	110 L
	<i>Allyl chloride</i> <i>1,3-Butadiene</i>	<i>4-Ethyltoluene</i>	

Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: *TO-14 Air Monitoring Gas Standards*

Description	Concentration		Cat. No.	Qty	
EPA TO-14A Chlorinated Hydrocarbon Subset Mix	100 ppb in nitrogen	Carbon tetrachloride Chloroethane Chloroform Chloromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene cis-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane	cis-1,3-Dichloropropene trans-1,3-Dichloropropene Hexachloro-1,3-butadiene 1,1,2,2-Tetrachloroethane Tetrachloroethylene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene Vinyl chloride	41902	110 L
EPA TO-14A GC-MS Tuning Standard	2 ppm bromofluorobenzene in nitrogen		41913	110 L	
JHAP-9 Mix	100 ppb in nitrogen	Acrylonitrile Benzene 1,3-Butadiene Chloroform 1,2-Dichloroethane	Dichloromethane Tetrachloroethylene Trichloroethylene Vinyl chloride	507970	110 L
JHAP-43 Mix	1 ppm in nitrogen	Acrylonitrile Allyl chloride Benzene Bromomethane 1,3-Butadiene Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene cis-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane cis-1,3-Dichloropropene	trans-1,3-Dichloropropene 1,2-Dichlorotetrafluoroethane Ethylbenzene 4-Ethyltoluene Hexachloro-1,3-butadiene Styrene 1,1,2,2-Tetrachloroethane Tetrachloroethylene Toluene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene Trichlorofluoromethane 1,1,2-Trichloro-1,2,2-trifluoroethane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene (Supelco 47281) Vinyl chloride o-Xylene m-Xylene p-Xylene	500429	110 L
JHAP-43 Mix	100 ppb in nitrogen	Acrylonitrile Allyl chloride Benzene Bromomethane 1,3-Butadiene Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene cis-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane cis-1,3-Dichloropropene	trans-1,3-Dichloropropene 1,2-Dichlorotetrafluoroethane Ethylbenzene 4-Ethyltoluene Hexachloro-1,3-butadiene Styrene 1,1,2,2-Tetrachloroethane Tetrachloroethylene Toluene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene Trichlorofluoromethane 1,1,2-Trichloro-1,2,2-trifluoroethane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene (Supelco 47281) Vinyl chloride o-Xylene m-Xylene p-Xylene	500011	110 L
BTEX Mix in nitrogen	10 ppm each component in nitrogen	Benzene Ethylbenzene Toluene	o-Xylene m-Xylene p-Xylene	501883	48 L

Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: SCOTTY® 110 Accessories

SCOTTY® 110 Accessories

Pressure Regulator for Use with TO-14/15 Cylinders



	Cat. No.	Qty
Model 226 Pressure Regulator with gauge, single-stage	41910-U	1 ea

Model 6 SCOTTY® Regulator for SCOTTY 104 Cylinders

- Stainless steel body with 316 L stainless steel/Elgiloy diaphragm
- PCTFE seat and PTFE seals
- Supply pressure gauge 0-3000 psig
- Delivery pressure range 0-100 psig
- CGA 110/180 connector
- Regulator supplied with 1/8 inch tube connector or syringe adapter



Description	Cat. No.	Qty
with connector	509965	1 ea
with syringe adapter	501115	1 ea

Stand for SCOTTY® 110 HP Cylinder

Ensures your SCOTTY 110 cylinder will be stable on a bench-top or other flat surface. This product will hold cylinders with a 3¼" diameter.



41909	1 ea
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Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: *TO-15/17 Air Monitoring Gas Standards*

TO-15/17 Air Monitoring Gas Standards

Air Liquide America Speciality Gases Toxic Organic (TO) calibration gas mixtures are an excellent choice for use in monitoring ppb and ppm levels of toxic volatiles and semi-volatiles in air in accordance with U.S. Environmental Protection Agency's TO-15/17 and Photochemical Assessment Monitoring Systems (PAMS) methodologies, and other related government regulations. Each gas mixture is produced individually and gravimetrically using NIST traceable weights. The content of each TO-15/17 and PAMS cylinder is then verified by gas chromatography before it leaves the facility. The test findings are provided on the certificate of accuracy shipped with each cylinder. Additional copies can be obtained at www.scottycerts.com.

TO-15/17 and PAMS gas calibration mixtures are offered in a lightweight Scotty 110L Extra-Life transportable aluminum cylinder. These cylinders feature Air Liquide America Speciality Gases' exclusive Aculife™ cylinder treatment process for guaranteed mixture stability.

These toxic organic gas calibration mixtures also feature:

- Guaranteed 12 month shelf life at 1ppm and 6 month shelf life at 100ppb
- Guaranteed stability of all components at 1ppm including carbon disulfide, ethanol, and benzyl chloride
- Guaranteed stability of all components at 100ppb with carbon disulfide, ethanol, 2-propanol, and benzyl chloride having a $\pm 25\%$ blend tolerance and analytical accuracy
- Available to be manufactured in different lots to meet secondary source requirements
- Guaranteed $\pm 10\%$ analytical accuracy (except as noted below)
- $\pm 10\%$ blend tolerance (except as noted below)

Scotty 110 L Gas Cylinder Specifications (pi-marked*)

Contents: 110 Liters (3.9cf)

Pressure: 1800 psig (124 bar)

Outlet Fitting: CGA 180

Weight: 2.2lbs/1kg

Dimensions: 3.25 inches D x 11.625 inches H (82.6mm x 295.3mm)

U.S. D.O.T.

Specs: 3AL2216

*Pi-marked cylinders comply with the requirements of the Transportable Pressure Equipment Directive (TPED) for movement within the EU.

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA TO-15/17 Calibration mix	100 ppb each component in nitrogen	41974-U	110 L
	<i>Acetone</i> <i>Benzene</i> <i>Benzyl chloride</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Bromomethane</i> <i>1,3-Butadiene</i> <i>2-Butanone</i> <i>Carbon disulfide</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroethane</i> <i>Chloroform</i> <i>Chloromethane</i> <i>Cyclohexane</i> <i>Dibromochloromethane</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Dichlorodifluoromethane</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>1,2-Dichlorotetrafluoroethane</i>	<i>1,4-Dioxane</i> <i>Ethanol</i> <i>Ethyl acetate</i> <i>Ethylbenzene</i> <i>4-Ethyltoluene</i> <i>Heptane</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexane</i> <i>2-Hexanone</i> <i>4-Methyl-2-pentanone</i> <i>Mesitylene</i> <i>tert-Butyl methyl ether</i> <i>2-Propanol</i> <i>Propylene</i> <i>Styrene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Tetrahydrofuran</i> <i>Toluene</i> <i>1,2,4-Trichlorobenzene</i> <i>Trichlorofluoromethane</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,1,2-Trichloro-1,2,2-trifluoroethane</i> <i>1,2,4-Trimethylbenzene</i> <i>Vinyl acetate</i> <i>Vinyl chloride</i> <i>m-Xylene</i> <i>o-Xylene</i> <i>p-Xylene</i>	

Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: *TO-15/17 Air Monitoring Gas Standards*

Description	Concentration	Cat. No.	Qty	
EPA TO-15/17 Calibration mix	1 ppm in nitrogen Acetone Benzene Benzyl chloride Bromofom Bromomethane Bromodichloromethane 1,3-Butadiene 2-Butanone Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Cyclohexane Chloromethane Dibromochloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene cis-1,2-Dichloroethylene trans-1,2-Dichloroethylene 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene 1,4-Dioxane Ethanol Ethyl acetate Ethylbenzene	1,2-Dibromoethane 4-Ethyltoluene Trichlorofluoromethane Dichlorodifluoromethane 1,1,2-Trichloro-1,2,2-trifluoroethane 1,2-Dichlorotetrafluoroethane Heptane Hexachloro-1,3-butadiene Hexane 2-Hexanone 4-Methyl-2-pentanone Dichloromethane tert-Butyl methyl ether 2-Propanol Propylene Styrene 1,1,2,2-Tetrachloroethane Tetrachloroethylene Tetrahydrofuran Toluene 1,1,1-Trichloroethane 1,1,1-Trichloroethane Trichloroethylene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene Mesitylene Vinyl acetate Vinyl chloride m-Xylene o-Xylene p-Xylene	41973-U	110 L
EPA TO-15/17 Calibration mix	1 ppm each component in nitrogen Acetone Allyl chloride Benzyl chloride Bromodichloromethane Bromofom 1,3-Butadiene 2-Butanone Carbon disulfide Cyclohexane Dibromochloromethane 1,4-Dioxane Ethyl acetate 4-Ethyltoluene	Heptane Hexane 2-Hexanone 4-Methyl-2-pentanone tert-Butyl methyl ether 2-Propanol Propylene Tetrahydrofuran trans-1,2-Dichloroethylene 2,2,4-Trimethylpentane Vinyl acetate Vinyl bromide	41978-U	110 L
EPA TO-15/17 Calibration mix	100 ppb each component in nitrogen Acetone Allyl chloride Benzyl chloride Bromodichloromethane Bromofom 1,3-Butadiene 2-Butanone Carbon disulfide Cyclohexane Dibromochloromethane 1,4-Dioxane Ethyl acetate 4-Ethyltoluene	Heptane Hexane 2-Hexanone 4-Methyl-2-pentanone tert-Butyl methyl ether 2-Propanol Propylene Tetrahydrofuran trans-1,2-Dichloroethylene 2,2,4-Trimethylpentane Vinyl acetate Vinyl bromide	41979-U	110 L
Massachusetts APH Mix	in nitrogen (varied) Benzene, 310 ppb 1,3-Butadiene, 450 ppb Butylcyclohexane, 170 ppb tert-Butyl methyl ether, 270 ppb Cumene, 200 ppb Cyclohexane, 290 ppb Decane, 170 ppb 2,3-Dimethylheptane, 190 ppb 2,3-Dimethylpentane, 240 ppb Dodecane, 140 ppb Ethylbenzene, 230 ppb Heptane, 240 ppb Hexane, 280 ppb	Isopentane, 330 ppb p-Cymene 1-Methyl-3-ethylbenzene, 200 ppb Naphthalene, 190 ppb Nonane, 190 ppb Octane, 210 ppb Toluene, 260 ppb 1,2,3-Trimethylbenzene, 200 ppb 1,3,5-Trimethylbenzene, 200 ppb Undecane, 150 ppb m-Xylene, 230 ppb o-Xylene, 230 ppb p-Xylene, 230 ppb	41982-U	110 L

Air Monitoring Standards

U.S. EPA Toxic Organic Air Monitoring Methods: *TO-15/17 Air Monitoring Gas Standards*

Description	Concentration	Cat. No.	Qty
Ozone precursor / PAMS mix	x ppb in nitrogen (varied) Acetylene, 40 ppb Benzene, 30 ppb Butane, 40 ppb 1-Butene, 30 ppb cis-2-Butene, 35 ppb trans-2-Butene, 25 ppb Cyclohexane, 40 ppb Cyclopentane, 20 ppm Decane, 30 ppb 1,3-Diethylbenzene, 40 ppb 1,4-Diethylbenzene, 25 ppb 2,2-Dimethylbutane, 40 ppb 2,3-Dimethylbutane, 50 ppb 2,3-Dimethylpentane, 50 ppb 2,4-Dimethylpentane, 40 ppb Dodecane, 40 ppb Ethane, 25 ppb Ethylbenzene, 25 ppb Ethylene, 20 ppb 3-Ethyltoluene, 25 ppb 2-Ethyltoluene, 40 ppb 4-Ethyltoluene, 40 ppb Heptane, 25 ppb Hexane, 30 ppb 1-Hexene, 60 ppb 2-Methylpropane, 25 ppb 2-Methylbutane, 40 ppb Isoprene, 40 ppb	41977-U Cumene, 40 ppb Methylcyclohexane, 30 ppb Methylcyclopentane, 25 ppb 2-Methylheptane, 25 ppb 3-Methylheptane, 25 ppb 2-Methylhexane, 25 ppb 3-Methylhexane, 25 ppb 2-Methylpentane, 20 ppb 3-Methylpentane, 40 ppb Nonane, 25 ppb Octane, 30 ppb Pentane, 25 ppb 1-Pentene, 25 ppb cis-2-Pentene, 35 ppb trans-2-Pentene, 25 ppb Propane, 40 ppb Propylbenzene, 30 ppb Propylene, 25 ppb Styrene, 40 ppb Toluene, 40 ppb 1,2,3-Trimethylbenzene, 25 ppb 1,2,4-Trimethylbenzene, 40 ppb Mesitylene, 25 ppb 2,2,4-Trimethylpentane, 30 ppb 2,3,4-Trimethylpentane, 25 ppb Undecane, 30 ppb Xylenes, 40 ppb o-Xylene, 25 ppb	110 L
Ozone precursor / PAMS mix	1 ppm each component in nitrogen Acetylene Benzene Butane 1-Butene cis-2-Butene trans-2-Butene Cyclohexane Cyclopentane Decane 1,3-Diethylbenzene 1,4-Diethylbenzene 2,2-Dimethylbutane 2,3-Dimethylbutane 2,3-Dimethylpentane 2,4-Dimethylpentane Dodecane Ethane Ethylbenzene Ethylene 3-Ethyltoluene 2-Ethyltoluene 4-Ethyltoluene Heptane Hexane 1-Hexene 2-Methylpropane 2-Methylbutane Isoprene	41976-U Cumene Methylcyclohexane Methylcyclopentane 2-Methylheptane 3-Methylheptane 2-Methylhexane 3-Methylhexane 2-Methylpentane 3-Methylpentane Nonane Octane Pentane 1-Pentene cis-2-Pentene trans-2-Pentene Propane Propylbenzene Propylene Styrene Toluene 1,2,3-Trimethylbenzene 1,2,4-Trimethylbenzene Mesitylene 2,2,4-Trimethylpentane 2,3,4-Trimethylpentane Undecane Xylenes o-Xylene	110 L
Ozone Precursor / PAMS Mix	100 ppb each component in nitrogen Acetylene Benzene Butane 1-Butene cis-2-Butene trans-2-Butene Cumene Cyclohexane Cyclopentane Decane 1,3-Diethylbenzene 1,4-Diethylbenzene 2,2-Dimethylbutane 2,3-Dimethylbutane 2,3-Dimethylpentane 2,4-Dimethylpentane Dodecane Ethane Ethylbenzene Ethylene 3-Ethyltoluene 2-Ethyltoluene 4-Ethyltoluene Heptane Hexane 1-Hexene Isoprene Mesitylene	41975-U 2-Methylpropane 2-Methylbutane Methylcyclohexane Methylcyclopentane 2-Methylheptane 3-Methylheptane 2-Methylhexane 3-Methylhexane 2-Methylpentane 3-Methylpentane Nonane Octane Pentane 1-Pentene cis-2-Pentene trans-2-Pentene Propane Propylbenzene Propylene Styrene Toluene 1,2,3-Trimethylbenzene 1,2,4-Trimethylbenzene 2,2,4-Trimethylpentane 2,3,4-Trimethylpentane Undecane m-Xylene, p-Xylene (50:50) o-Xylene	110 L

Air Monitoring Standards

Gas Calibration Standards: *Air Liquide/Scotty® Gas Products*

Gas Calibration Standards

Air Liquide/Scotty® Gas Products

We offer an expanded line of pure gases and gas mixtures manufactured for Supelco by Air Liquide America Specialty Gases. Supelco warrants that the Air Liquide calibration gas products listed below meet the analytical specifications for the period of time stated on the cylinder and/or the Certificate of Analysis.

Supelco attempts to provide a product with at least 4 months of usable shelf life from date of purchase.

Note: Scotty 14 L and 48 L gas standard cylinders do not conform to the standards and regulations of the European Union (EU).

Specifications

SCOTTY 4 Liters

Contents: 4 liters, **Pressure:** 120 psig, **Outlet Fitting:** Aerosol-type push button with applicator tube, **Weight:** ~100 g, **Dimensions:** 2.5 × 8 in., **D.O.T. Specs:** 2Q

SCOTTY 14 Liters

Contents: 14 liters, **Pressure:** 240 psig, **Outlet Fitting:** CGA-160-1/8 in. NPT F, **Weight:** 1.5 lb, **Dimensions:** 3 × 11 in., **D.O.T. Specs:** 4B240

SCOTTY 48 Liters

Contents: 48 liters, **Pressure:** 300 psig, **Outlet Fitting:** CGA-165, **Weight:** 1.75 lb, **Dimensions:** 4 × 16.25 in., **D.O.T. Specs:** 39 NRC

SCOTTY 110 Liters

Contents: 110 liters, **Pressure:** 1800 psig, **Outlet Fitting:** CGA-180, **Weight:** 2.2 lbs, **Dimensions:** 3.25 × 11.625 in., **D.O.T. Specs:** 3AL2216

Pure Gases

Description	Cat. No.	Qty
Air, Zero (THC <1ppm)	501212 501220 501239	4 L 14 L 48 L
Argon (99.995%)	501247 501255	4 L 14 L
Carbon dioxide (99.8%)	23402 501298	14 L 48 L
Ethylene (99.5%), analytical standard	25881-U	14 L
Hydrogen (99.99%), analytical standard	300100	14 L
Methane (99.0%), 99.0%, analytical standard	22562	14 L
Nitrogen (99.99%)	25877-U 25879-U 25882-U	4 L 14 L 48 L
Oxygen (99.6%), 99.6%, analytical standard	300500-U	1 ea

Two-Component Mixtures

Description	Cat. No.	Qty
Benzene in air, 1 ppm, analytical standard	303402-U	48 L
Benzene in air, 100 ppm, analytical standard	303404	48 L
1,3-Butadiene in nitrogen, 10 ppm	303405 303406	14 L 48 L
Carbon dioxide in helium, 100 ppm, analytical standard	308200	14 L
Carbon dioxide in nitrogen	308300 501301	14 L 48 L
Carbon dioxide in nitrogen	501336 501344	14 L 48 L
Chlorine in nitrogen, 10 ppm, analytical standard	501352	104 L
Ethylene in air, 10 ppm, analytical standard	501379	14 L
Ethylene in helium, 100 ppm, analytical standard	22572	14 L
Hydrogen in helium, 100 ppm, analytical standard	301200	14 L
Hydrogen in nitrogen, 100 ppm, analytical standard	301300	14 L
Hydrogen in nitrogen, 1%	501417 501425	14 L 48 L
Methane in helium, 100 ppm	501441 307200 501468	4 L 14 L 48 L
Methane in nitrogen, 100 ppm, analytical standard	307300-U	14 L
Methane in nitrogen, 1%	501476 23443	4 L 14 L
Nitrogen in helium, 100 ppm, analytical standard	303200	14 L
Nitrous oxide in nitrogen, 1 ppm	501514 501522	14 L 48 L
Nitrous oxide in nitrogen, 10 ppm, analytical standard	25883-U	48 L
Oxygen in helium, 100 ppm, analytical standard	305200	14 L
Oxygen in helium, 1%, analytical standard	25878-U	4 L
Oxygen in nitrogen, 1%, analytical standard	25880-U	14 L
Oxygen in nitrogen, 2 %, 2%	501549 501557	14 L 48 L
Oxygen in nitrogen, 6 %, 6%	501565 501573	4 L 14 L
Vinyl chloride in nitrogen , 1 ppm	22554 501603	14 L 48 L
Vinyl chloride in nitrogen , 10 ppm, analytical standard	22553	14 L
Vinyl chloride in nitrogen , 50 ppm, analytical standard	22555-U	14 L
Vinyl chloride in nitrogen , 100 ppm, analytical standard	22552	14 L
Vinyl chloride in nitrogen , 1000 ppm, analytical standard	22556	14 L
1,1,1-Trichloroethane in nitrogen, 10 ppm, analytical standard	303408	48 L
Trichloroethylene in nitrogen, 10 ppm	303400 303401	14 L 48 L

Air Monitoring Standards

Gas Calibration Standards: *Air Liquide/Scotty® Gas Products*

Three-Component Mixtures

Description	Cat. No.	Qty
Carbon Dioxide (1%) and Oxygen (20%) in Nitrogen	23441 501638	14 L 48 L

Multi-Component Mixtures

Description	Cat. No.	Qty
C ₂ -C ₄ Alkynes, 15 ppm each component in nitrogen, analytical standard	22508	4 L
BTEX Mix in nitrogen, 10 ppm each component in nitrogen	501883 25884-U	48 L 74 L
Branched paraffins, 15 ppm each component in nitrogen, analytical standard	23445	14 L
n-Butane, iso-butane, cis-2-butene, trans-2-butene, 1-butene, iso-butylene, 1,3-butadiene, and ethyl acetylene, 15 ppm each component in nitrogen	22567 23471	4 L 48 L
Carbon Monoxide, Carbon Dioxide, Hydrogen and Oxygen	23438 501654	14 L 48 L
Carbon Monoxide, Carbon Dioxide, Hydrogen, Methane and Oxygen	501670 22561 23463	4 L 14 L 48 L
Carbon Monoxide, Carbon Dioxide, Methane, Ethane, Ethylene and Acetylene, 1% each component in nitrogen	501662 23462	4 L 48 L
Carbon Monoxide (5%), Carbon Dioxide (5%), Nitrogen (5%), Oxygen (5%), Methane (4%) and Hydrogen (4%), 4-5 % (w/w) each component in helium, analytical standard	501697	14 L
Carbon Monoxide (7%), Carbon Dioxide (15%), Oxygen (4%), and Methane (4.5%), in nitrogen	501743 501751	14 L 48 L
Carbon Monoxide (7%), Carbon Dioxide (15%), and Oxygen (5%), in nitrogen, analytical standard	23442	14 L
Methane, Ethane, Ethylene, Acetylene, Propane, Propylene, Propyne, and n-Butane, 15 ppm each component in nitrogen	22566 23470-U	4 L 48 L
C ₁ -C ₆ n-Paraffins, 15 ppm each component in nitrogen	501778 23444 501786	4 L 14 L 48 L
C ₁ -C ₆ n-Paraffins, 100 ppm each component in nitrogen	501840 330300 501859	4 L 14 L 48 L
C ₁ -C ₆ n-Paraffins, 100 ppm each component in helium	501794 330200 501808	4 L 14 L 48 L
C ₁ -C ₆ n-Paraffins, 1000 ppm each component in helium	501816 501824 501832	4 L 14 L 48 L
C ₂ -C ₆ Olefins, 100 ppm each component in helium	332200 501867	14 L 48 L
C ₂ -C ₆ Olefins, 100 ppm each component in nitrogen	332300-U 501875	14 L 48 L

Natural Gas Reference Standards

Prepared gravimetrically with weights traceable to the National Institute of Standards and Technology, then verified by analysis. Supplied in 14 L SCOTTY 14 cylinders. Shelf life: 1 year.

Ordering information provided below.
not available in EU

Component (Mole Percent)	GPA Standard	Calorimetric Standard	High Ethane Standard	Helium-enriched Standard
Helium	0.50			2.00
Nitrogen	5.00	2.50	9.00	1.60
Carbon dioxide	1.00	3.00	0.50	0.20
Methane	70.50	88.73	64.00	88.90
Ethane	9.00	3.50	12.50	3.00
Propane	6.00	1.00	7.00	1.70
Isobutane	3.00	0.40	3.00	1.00
n-Butane	3.00	0.40	3.00	1.00
Isopentane	1.00	0.15	0.50	0.30
n-Pentane	1.00	0.15	0.50	0.30
Neopentane		0.10		
n-Hexane		0.05		
n-Heptane		0.02		
BTU	1298	1028	1500	1083
Qty	785 g	790 g	763 g	774 g

Description	Cat. No.	Qty
Calorimetric Natural Gas Reference Standard, analytical standard	303101	14 L
GPA Natural Gas Reference Standard, volume 14 L, analytical standard	303100-U	14 L
High Ethane Natural Gas Reference Standard, part volume 14 L, analytical standard	303102	14 L
Helium Enriched Natural Gas Reference Standard, part volume 14 L, analytical standard	303103	14 L

Air Monitoring Standards

Gas Calibration Standards: *Air Liquide/Scotty® Gas Accessories*

Air Liquide/Scotty® Gas Accessories

Regulators for Scott Gas Standards

Designed for noncorrosive service. Gauge displays remaining cylinder pressure, regulator adjusts delivery pressure

- Brass body with acetal resin bonnet/Viton diaphragm
- Tamper resistant locking control knob
- Inlet connection ¼ inch AN flare (CGA-165 or CGA-160)
- Maximum inlet pressure 300 psig
- Delivery pressure range 1-60 psig, can be preset
- Miniature
- Cat. No. 25885-U fits the 74 L Scotty 48-EL (Cat. No. 25884-U)



Top: 507911(CGA-160), Bottom: 501395 (CGA-165)

Description	Cat. No.	Qty
Model 226 Single-Stage Regulator, CGA-170, (for SCOTTY® 74L cylinder)	25885-U	1 ea
Model 24 Single-Stage Regulator, for use with CGA-165 (for SCOTTY 48 cylinder)	501395	1 ea
Model 24 Single-Stage Regulator, for use with CGA-160 (for SCOTTY 14 cylinder)	507911	1 ea

Syringe Adapter for SCOTTY® 14 and 48 Cylinders

Withdraw calibration gas into a syringe, through a silicone rubber septum. A vent at the septum permits purging prior to filling the syringe. Constructed of chromium-plated brass. Maximum pressure 240psi (16.9kg/cm2). ⅛ in. NPT male fitting.



Description	Cat. No.	Qty
Syringe Adaptor	609010	1 ea
Syringe Adapter Replacement Septa	608010	10 ea

Miniature Regulator with Gauge

Reliable pressure regulation to 1 psig (0.07 kg/cm²), indicated on a 0-60 psi (4.2 kg/cm²) gauge. Easily connects to SCOTTY 14 cylinders with the ⅛-inch NPT connector provided. You can also attach the syringe adapter (Cat. No. 609010) to the regulator for low pressure sample removal. Aluminum body with acetyl resin bonnet. Maximum inlet pressure: 400 psi (28.1 kg/cm²).



513010

1 ea

Stand for SCOTTY® 110 HP Cylinder

Ensures your SCOTTY 110 cylinder will be stable on a bench-top or other flat surface. This product will hold cylinders with a 3¼" diameter.



41909

1 ea

Stand for SCOTTY® 48 Cylinder

Stabilizes your cylinder on a benchtop or other flat surface. This item will hold cylinders with a four-inch diameter.



500410

1 ea

Environmental Standards

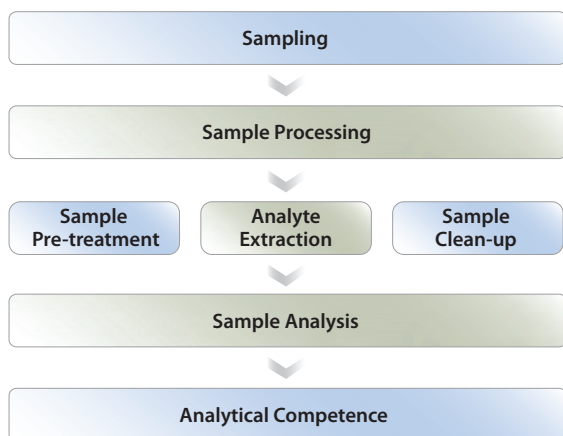
Proficiency Testing

Environmental Standards

Proficiency Testing

ENSURE ACCURACY AND PRECISION

Ensuring your laboratory's results are accurate and precise is critical in a competitive market. The analytical competence of a laboratory is guaranteed in the form of accreditation from an approved body. An essential part of the process is the participation in proficiency testing, usually in the form of the analysis of Certified Reference Materials (CRM) or Proficiency Testing (PT) Samples.



PROFICIENCY TESTING FROM SIGMA-ALDRICH RTC

Sigma-Aldrich RTC has been producing environmental laboratory testing programs, also known as Performance Evaluation (PE) for more than 20 years. More than 20,000 certified PT samples a year are sent to over 2500 labs worldwide.

Our environmental laboratory proficiency testing programs are accredited by ACLASS to ISO/IEC 17043:2010, Certificate No. AP-1469 and recognized by all accreditation bodies worldwide, and cover the following areas of testing:

- Waste Water (including surface, borehole, discharge and sea waters (WP))
- Drinking Water (WS)
- Contaminated Land (LPTP/UST)
- Air Quality and Emissions (AIR)

Sigma-Aldrich RTC is an approved TNI PT Provider

THE RTC ADVANTAGE

Water:

- **Matrix Modifiers** - Specific water matrix modifiers are available for hard, waste and sea water to stimulate real water samples
- **Choice of Formats** - Most RTC water PT samples are available as concentrates or ready-to-use volumes
- **Water PT** (duplicate samples - concentrates only) - One sample can be used for analysis, the other retained for QC purposes using the study data values.

Solids:

RTC Soil PT samples behave as real samples; and, unless there is no alternative, are not simply spikes added to a blank soil.

Supply:

- **CRMs Match PT Samples** - For every PT sample, a CRM is available.
- **Quick-Turn Studies** - If you are a registered PT studies end user, Quick-Turn studies are available at no additional cost, alongside regularly scheduled distributions.

Reporting:

- **Flexible Reporting** - Multiple Methods, analysts or equipment can be reported for the same analyte at no extra charge.
- **Third Party Reporting** - Evaluation reports can be sent to an authorized third party at no additional cost.
- **On Line Reporting** - Results can be uploaded and all PT documents viewed and downloaded through our secure website.
- **Certificates of Excellence & Proficiency** - Issued to laboratories that demonstrate excellence throughout the year.

Overview of Proficiency Testing Products

	Metals & Inorganics	Organics	Gases	Physical Properties
Drinking Water (WS)	✓	✓		✓
WP		✓		✓
Soils & Solid Waste	✓	✓		
Air	✓	✓	✓	
Micro		✓		



Air PTs

Values of analytes vary lot-to-lot.

FOR PT ORDERS: visit www.sigmaaldrich.com/pt or contact your local office.

Description	Cat. No.	Pkg
Sulfur Dioxide in Impinger Solution	PEA1900-20ML	20 mL
Ammonia in Impinger Solution	PEA1901-20ML	20 mL
Fluoride in Impinger Solution	PEA1902-20ML	20 mL
Sulfuric Acid in Impinger Solution	PEA1903-20ML	20 mL
Nitrogen Oxide in Impinger Solution	PEA1904-20ML	20 mL
Hydrogen Halides/Halogens in Impinger Solution	PEA1905-20ML	20 mL
Particulate Matter in Impinger Solution	PEA1906-250ML	250 mL
Particulate Matter on Filter Paper	PEA1907-1EA	1 ea
Metals on Filter Paper	PEA1910-1EA	1 ea
Anions on Filter Paper	PEA1911-1EA	1 ea
Mercury on Filter Paper	PEA1912-1EA	1 ea
Lead on Filter Paper	PEA1913-1EA	1 ea

Environmental Standards

Proficiency Testing

Description	Cat. No.	Pkg
Metals in Impinger Solution	PEA1915-250ML	250 mL
Mercury in Impinger Solution	PEA1916-20ML	20 mL
Lead in Impinger Solution	PEA1917-250ML	250 mL
Chromium (VI) in Impinger Solution	PEA1918-20ML	20 mL
Semivolatiles on PUF	PEA1921-1EA	1 ea
PCBs on PUF	PEA1922-1EA	1 ea
Aldehydes/Ketones on Sorbent	PEA1923-1EA	1 ea
Pesticides on PUF	PEA1924-1EA	1 ea
PAHs on PUF	PEA1926-1EA	1 ea
Volatiles in Gas Cylinder	PEA1930	
Volatiles on Sorbent	PEA1931-1EA	1 ea

Drinking Water PTs

Also referred to as Potable Water or Water Supply samples. These samples are produced to TNI FoPT criteria in lower ranges that mimic the levels that are common to drinking water samples.

FOR PT ORDERS: visit www.sigmaaldrich.com/pt or contact your local Sigma-Aldrich office.

Description	Cat. No.	Pkg
Acidity - WS	PE1319-20ML	20 mL
Adipate/Phthalate - WS	PE1596-2ML	2 mL
Alcohols in Water - WS	PE1312-2ML	2 mL
Ammonia - WS	PE1593-2ML	2 mL
Anionic Surfactant - MBAS - WS	PE1337-20ML	20 mL
Anions - Whole Volume - WS	PE3364-500ML	500 mL
Anions - WS	PE1364-20ML	20 mL
Asbestos - WS	PE1399-2ML	2 mL
Bromate and Bromide - WS	PE1361-2ML	2 mL
Carbamate Pesticides - WS	PE1507-2ML	2 mL
Chlorate and Chlorite - WS	PE1372-2ML	2 mL
Chlordane (Total) - WS	PE1326-2ML	2 mL
Chlorine(Combined and Total) - WS	PE1415-2ML	2 mL
Chromium VI - Whole Volume - WS	PE3453-500ML	500 mL
Chromium VI - WS	PE1453-20ML	20 mL
Color - WS	PE1401-20ML	20 mL
Corrosivity/Sodium - Whole Volume - WS	PE3381-500ML	500 mL
Corrosivity/Sodium - WS	PE1304-1KT	1 kit
Cyanide - Whole Volume - WS	PE3573-500ML	500 mL
Cyanide, Total - WS	PE1496-2ML	2 mL
Demand (Low Level) - WS	PE1388-20ML	20 mL
Dioxin in Water - WS	PE1373-2ML	2 mL
Dissolved Oxygen - WS	PE1549-2ML	2 mL
EDB/DBCP - WS	PE1484-2ML	2 mL
Endothal -WS	PE1587-2ML	2 mL
Gasoline Additives - WS	PE1466-2ML	2 mL
Kjeldahl Nitrogen, Total (TKN) - WS	PE1575-2ML	2 mL
MBAS - Whole Volume - WS	PE3337-500ML	500 mL
Methyl Mercury in Water	PE1100-1.5ML	1.5 mL
Mercury(Low Level) - Whole Volume - WS	PE3432-500ML	500 mL
Methanol in Water - PT	PE1543-2ML	2 mL
Non Ionic Surfactants in water - PT	PE1197-20ML	20 mL
Oil and Grease - WS	PE1404-2ML	2 mL
Organic Disinfection By-Products - WS	PE1425-2ML	2 mL
Organochlorine Pesticides Ampule 1 - WS	PE1595-2ML	2 mL
Organochlorine Pesticides Ampule 2 - WS	PE1550-2ML	2 mL
Organonitrogen Pesticides - WS	PE1400-2ML	2 mL
Organophosphorus Pesticides (Low Level) - PT	PE1377-2ML	2 mL
PCB's - WS	PE1579-2ML	2 mL
Perchlorate - WS	PE1351-2ML	2 mL
pH - WS	PE1368-20ML	20 mL
	PE1368-100ML	100 mL
	PE1368-250ML	250 mL
Phenolics, Total - WS	PE1329-2ML	2 mL
Phthalates - PT	PE1412-2ML	2 mL

Environmental Standards

Proficiency Testing

Drinking Water PTs (continued)

Description	Cat. No.	Pkg
PNA's - WS	PE1301-2ML	2 mL
Pyrethroids in Ground Water - WS	PE1317-2ML	2 mL
Regulated VOC's Ampule 1 - WS	PE1469-2ML	2 mL
Regulated VOC's Ampule 2 - WS	PE1546-2ML	2 mL
Residual Free Chlorine (RFC) - WS	PE1450-2ML	2 mL
Residue - WS	PE1490-500ML	500 mL
Silica - WS	PE1350-20ML	20 mL
Solvents in Water - PT	PE1461-2ML	2 mL
TOC - Whole Volume- WS	PE3308-500ML	500 mL
Total Cyanide - WS	PE1573-2ML	2 mL
Total Organic Carbon (TOC) - WS	PE1308-20ML	20 mL
Total Petroleum Hydrocarbons (TPH) - WS	PE1452-2ML	2 mL
Toxaphene (Total) - WS	PE1544-2ML	2 mL
Trace Metals 1 - WS	PE1488-20ML	20 mL
Trace Metals 2 - WS	PE1458-20ML	20 mL
Trace Metals 3 - WS	PE1448-20ML	20 mL
Trihalomethanes - WS	PE1456-2ML	2 mL
Turbidity - Whole Volume - WS	PE3342-500ML	500 mL
Turbidity - WS	PE1342-2ML	2 mL
Uranium - WS	PE1548-20ML	20 mL
UV 254 - WS	PE1506-20ML	20 mL
UV254 - Whole Volume - WS	PE3506-500ML	500 mL

Drinking Water Microbiology PTs

This proficiency testing sample is produced in accordance with ISO/IEC 17043:2010. All information regarding the use of this material can be found in the reporting packet supplied for each sample.

FOR PT ORDERS: visit www.sigmaaldrich.com/pt or contact your local Sigma-Aldrich office.

Description	Cat. No.	Pkg
Clostridium perfringens in Water	MIC020-2EA	2 ea
E. coli in Drinking and Surface Water PT- Quantitative - WS	MIC007-2EA	2 ea
Fungi and Yeast PT- WS	MIC015-2EA	2 ea
Legionella in Water PT - WP	MIC004-2EA	2 ea
Pseudomonas aeruginosa PT - WS	MIC008-2EA	2 ea
Salmonella PT for Drinking/Surface Water - WS	MIC006-2EA	2 ea
Standard Plate Count PT - WS	MIC002-2EA	2 ea
Streptococcus/Enterococcus PT- Drinking & Surface Water	MIC011-2EA	2 ea
WS-Enterococci PT-Sample (1-10)	MIC016-10EA	10 ea
WS-Microbiological PT - Sample (1-10)	MIC001-10EA	10 ea

Soil PTs

We are the world leader in the manufacturing of real world soil and sediment PT products. Our products have real world natural matrices in which selected analytes have been fortified to give analytical profiles that meet the needs of your laboratory.

FOR PT ORDERS: visit www.sigmaaldrich.com/pt or contact your local Sigma-Aldrich office.

Description	Cat. No.	Pkg
Anions in Soil - PT	SPE013-30G	30 g
BNAs in Soil - PT	SPE003-40G	40 g
BTEX/MTBE in Soil - PT	SPE025-30G	30 g
BTEX/MTBE in Water - PT	PE1642-2ML	2 mL
Carbamates in Soil - PT	SPE030-50G	50 g
Chlordane in Soil - PT	SPE027-50G	50 g
Chlorinated Pesticides in Soil - PT	SPE009-50G	50 g
Chromium VI in Soil - PT	SPE012-30G	30 g
Corrosivity - PT	SPE023-100G	100 g
Cyanide in Soil - PT	SPE011-3ML	3 mL
	SPE011-100G	100 g

Environmental Standards

Proficiency Testing

Description	Cat. No.	Pkg
Diesel in Soil - PT	SPE007-100G	100 g
Diesel in Water - PT	PE1708-2ML	2 mL
Dioxin and Furans in Soil - PT	SPE016-10G	10 g
Dioxins and Furans in Tissue - PT	SPE016TIS-10G	10 g
Dioxins/Furans in Sea Water Mussel - PT	SPE016MUS-10G	10 g
Dioxins/Furans in Shrimp - PT	SPE083-10G	10 g
Flash Point - PT	SPE029-4X25ML	4 × 25 mL
Fluoride/Chloride in Oil - PT	SPE061-100G	100 g
Free Liquids in Paint - PT	SPE075-100ML	100 mL
Gasoline in Soil - PT	SPE008-30G	30 g
Gasoline in Water - PT	PE1798-2ML	2 mL
Herbicides in Soil - PT	SPE004-50G	50 g
Lead in Powdered Paint - PT	SPE074-50G	50 g
Metals in Oil - PT	SPE060-25G	25 g
Metals in Sewage Sludge - PT	SPE001S-50G	50 g
Methyl Mercury in Sediment - PT	SPE1238-50G	50 g
Nitrosamines/Nitroaromatics - PT	SPE022-30G	30 g
Nutrients in Soil - PT	SPE014-100G	100 g
Oil and Grease in Soil - PT	SPE037-100G	100 g
Organic Lead in Soil (Sample 1) - PT	SPE001PB1-1.5ML	1.5 mL
Organic Lead in Soil (Sample 2) - PT	SPE001PB2-1.5ML	1.5 mL
Organophosphorus Pesticides - PT	SPE021-50G	50 g
Organo-Tin in Soil - PT	SPE073-30G	30 g
Oxidizer Screen - PT	SPE067-100G	100 g
PAHs by HPLC - PT	SPE017-40G	40 g
PBDE/PCBs in Sediment - PT	SPE072-50G	50 g
PCB Congeners in Fish Tissue - PT	SPE068TIS-30G	30 g
PCB Congeners in Sea Water Mussel - PT	SPE068MUS-30G	30 g
PCB Congeners in Shrimp - PT	SPE087-30G	30 g
PCB Congeners in Soil - PT	SPE068-50G	50 g
PCBs in Soil - PT	SPE010-50G	50 g
PCBs in Transformer Oil - WP	PE1275-2ML	2 mL
Phenolics in Soil (TOX) - PT	SPE038-100G	100 g
Phenols - PT	SPE018-40G	40 g
Reactivity - PT	SPE024-30G	30 g
Solvent Screen - PT	SPE070-20ML	20 mL
Specific Gravity - PT	SPE066-100ML	100 mL
Sulfide in Soil - PT	SPE102-30G	30 g
TCLP - VOA - PT	SPE076-2ML	2 mL
TCLP Metals in Soil - PT	SPE005-225G	225 g
TCLP Semi-VOAs - PT	SPE015-225G	225 g
Metals in Soil - PT	SPE001-50G	50 g
Toxaphene in Soil - PT	SPE028-50G	50 g
TPH in Soil - PT	SPE026-100G	100 g
TPH in Water	PE1800-2ML	2 mL
TPH in Water (high level)	PE1619-2ML	2 mL
TPH in Water (low level)	PE1799-2ML	2 mL
TRPH IR Screen Soil - PT	SPE019-100G	100 g
Uranium in Soil - PT	SPE071-30G	30 g
VOAS in Soil - Low Level - PT	SPE002L-30G	30 g
VOAs in Soil - Medium Level - PT	SPE002H-25G	25 g
E. coli PT- Sludge	MIC014-2EA	2 ea
E. coli Quantitative PT- Soil	MIC009-2EA	2 ea
Salmonella PT- Sludge	MIC013-2EA	2 ea

Environmental Standards

Proficiency Testing

State Specific PTs

This proficiency testing sample is produced in accordance with ISO/IEC 17043:2010. All information regarding the use of this material can be found in the reporting packet supplied for each sample.

FOR PT ORDERS: visit www.sigmaaldrich.com/pt or contact your local Sigma-Aldrich office.

Values of analytes vary lot to lot.

Description	Cat. No.	Pkg
Gasoline in Water - AK - PT	PE1817-2ML	2 mL
Diesel in Water - AK - PT	PE1779-2ML	2 mL
Gasoline in Soil - AK - PT	SPE008AK-25G	25 g
BTEX/MTBE in Soil - PT	SPE025AK-25G	25 g
RRO in Soil - PT	SPE026AK-100G	100 g
Diesel in Soil - AK PT - PT	SPE007AK-100G	100 g
BTEX in Water - AK - PT	PE1608-2ML	2 mL
NJDEP EPH in Soil - PT	SPE026NJ-100G	100 g
NJDEP EPH in Water	PE1658-2ML	2 mL
Diesel in Water-WA - PT	PE1756-2ML	2 mL
Diesel in Soil-WA - PT	SPE007WA-100G	100 g
Diesel in Water-MA - PT	PE1849-2ML	2 mL
Diesel in Soil by MA Methods - PT	SPE007MA-40G	40 g
Gasoline in Soil by MA Method VPH - PT	SPE008MA-30G	30 g
Gasoline in Water-MA - PT	PE1679-2ML	2 mL
Gasoline in Soil by WI Method - PT	SPE008WI-25G	25 g
Diesel in Soil- WI - PT	SPE007WI-100G	100 g
BTEX/MTBE in Soil - PT	SPE025WI-25G	25 g
TCLP Metals CA-WET in Soil - PT	SPE006-225G	225 g
Gasoline in Water-WA - PT	PE1863-2ML	2 mL
Gasoline in Soil-WA - PT	SPE008WA-30G	30 g

Waste Water PTs

Also referred to as Non-Potable water or Water Pollution samples. These samples are produced to TNI FoPT criteria in higher ranges that mimic the levels that are common to waste. Values vary lot to lot.

For PT ORDERS Visit www.sigmaaldrich.com/PT or contact your local Sigma-Aldrich office.

Description	Cat. No.	Pkg
Acid Compounds - WP	PE1274-2ML	2 mL
Acidity - Whole Volume - WP	PE3269-500ML	500 mL
Acidity - WP	PE1269-20ML	20 mL
Alkalinity - WP	PE1076-20ML	20 mL
Amenable Cyanide - Whole Volume - WP	PE3147-500ML	500 mL
Anionic Surfactants (MBAS) - WP	PE1144-20ML	20 mL
Anions - Whole Volume - WP	PE3060-500ML	500 mL
Anions - WP	PE1060-20ML	20 mL
Asbestos - WP	PE1046-2ML	2 mL
Base/Neutrals Compounds 2B - WP	PE1171-2ML	2 mL
Boron (Colorimetric Method) - WP	PE1066-20ML	20 mL
Bromide - WP	PE1188-20ML	20 mL
BTEX/MTBE in Water - PT	PE1642-2ML	2 mL
Carbamates in Water - WP	PE1006-2ML	2 mL
Chlordane (Total) - WP	PE1092-2ML	2 mL
Chromium VI - Whole Volume - WP	PE3088-500ML	500 mL
Chromium VI - WP	PE1088-20ML	20 mL
Chromium VI in Seawater - Whole Volume - WP	PE3015-500ML	500 mL
Color - Whole Volume - WP	PE3126-100ML	100 mL
Color - WP	PE1126-20ML	20 mL
Complex Nutrients - Whole Volume - WP	PE3051-500ML	500 mL
Complex Nutrients - WP	PE1051-2ML	2 mL
Complex Nutrients in Seawater - Whole Volume - WP	PE3145-500ML	500 mL
Cyanide - Whole Volume - WP	PE3054-500ML	500 mL
Cyanide Amenable to Chlorination - WP	PE1147-2ML	2 mL
Demand - Whole Volume - WP	PE3130-500ML	500 mL
Demand - WP	PE1130-20ML	20 mL

Environmental Standards

Proficiency Testing

Description	Cat. No.	Pkg
Diesel in Water - PT	PE1708-2ML	2 mL
Dioxins and Furans in water by 8280 - PT	PE1102-2ML	2 mL
Dioxins in Water - WP	PE1295-2ML	2 mL
Dissolved Oxygen - WP	PE1077-2ML	2 mL
Ferrous Iron in Water - WP	PE1104-20ML	20 mL
Oxidation - Reduction - WP	PE1183-30ML PE1183-1.2G	30 mL 1.2 g
Fluoride in Water - PT	PE3162-500ML	500 mL
Formaldehyde in Water - PT	PE1380-20ML	20 mL
Gasoline in Water - PT	PE1798-2ML	2 mL
Herbicides - WP	PE1124-2ML	2 mL
Iodate in Water - PT	PE1243-20ML	20 mL
Iodide in Water - WP	PE1047-20ML	20 mL
Low Level Pesticides 1 - PT	PE1321-2ML	2 mL
Low Level Pesticides 2 - PT	PE1491-2ML	2 mL
MBAS - Whole Volume - WP	PE3144-500ML	500 mL
Mercury - Whole Volume - WP	PE3129-500ML	500 mL
Mercury - WP	PE1129-20ML	20 mL
Minerals - WP	PE1041-1KT	1 kit
Mercury (Low Level) - WP	PE1205-20ML	20 mL
Methanol in Water - PT	PE1543-2ML	2 mL
Minerals - Whole Volume - WP	PE3041-500ML	500 mL
Minerals in Seawater - Whole Volume - WP	PE3136-500ML	500 mL
Nitrite - WP	PE1153-2ML	2 mL
Nitrosamines/Nitroaromatics - WP	PE1040-2ML	2 mL
Non Ionic Surfactants in water - PT	PE1197-20ML	20 mL
Oil and Grease - WP	PE1083-2ML	2 mL
Oil and Grease - Whole Volume - WP	PE3083-250ML	250 mL
Organophosphorus Pesticides - WI - WP	PE1118-2ML	2 mL
Organotins in Water - WP	PE1566-2ML	2 mL
Oxidation - Reduction - WP	PE1263-30ML	30 mL
PAHs - WP	PE1173-2ML	2 mL
PAHs (Low Level) - WP	PE1223-2ML	2 mL
PBDE's in water - PT	PE1398-2ML	2 mL
PCB Congeners in Water - WP	PE1116-2ML	2 mL
PCBs in Transformer Oil - WP	PE1275-2ML	2 mL
PCBs in Water - WP	PE1033-2ML	2 mL
Perchlorate - WP	PE1178-2ML	2 mL
Pesticides 1 - WP	PE1280-2ML	2 mL
Pesticides 2 - WP	PE1201-2ML	2 mL
pH in Water- WP	PE1210-20ML PE1210-100ML PE1210-250ML	20 mL 100 mL 250 mL
Phenol - Whole Volume - WP	PE3134-500ML	500 mL
Pyrethroids in Waste Water - WP	PE1122-2ML	2 mL
Residue - WP	PE1050-1.5G	1.5 g
Residue - WP	PE3050-500ML	500 mL
Residue/pH - Whole Volume - WP	PE3119-500ML	500 mL
Fixed Solids and Bicarbonate - WP	PE1090-500ML PE1090-1.2G	500 mL 1.2 g
Settleable Solids/Volatile Residue - Whole Volume - WP	PE3192-1L	1 L
Settleable Solids - WP	PE1194-1.2G	1.2 g
Silica - Whole Volume - WP	PE3078-500ML	500 mL
Silica - WP	PE1078-20ML	20 mL
Silica in Seawater - Whole Volume - WP	PE3111-500ML	500 mL

Environmental Standards

Proficiency Testing

Waste Water PTs (continued)

Description	Cat. No.	Pkg
Simple Nutrients - Whole Volume - WP	PE3198-500ML	500 mL
Simple Nutrients - WP	PE1195-20ML	20 mL
Simple Nutrients in Seawater - Whole Volume - WP	PE3179-500ML	500 mL
Solvents in Water - PT	PE1461-2ML	2 mL
Sulfide - Whole Volume - WP	PE3034-500ML	500 mL
Sulfide (Total and Soluble) - WP	PE1034-20ML	20 mL
Sulfide in Seawater - Whole Volume - WP	PE3276-500ML	500 mL
Sulfur in Water - WP	PE1285-20ML	20 mL
Surfactants - Cationic - WP	PE1097-20ML	20 mL
Tannin and Lignin - Whole Volume - WP	PE3073-500ML	500 mL
Tannin and Lignin - WP	PE1073-20ML	20 mL
Thiocyanate in Water - WP	PE1149-2ML	2 mL
Titanium and Tin - WP	PE1194-1EA PE1154-20ML	1 ea 20 mL
Total Cyanide - WP	PE1054-2ML	2 mL
Total Organic Halides (TOX) - WP	PE1070-2ML	2 mL
Total Phenolics - WP	PE1134-2ML	2 mL
Total Recoverable Petroleum Hydrocarbons - WP	PE1272-2ML	2 mL
Total Residual Chlorine - WP	PE1065-2ML	2 mL
Total Residual Chlorine (Low Level) - WP	PE1152-2ML	2 mL
Toxaphene - WP	PE1094-2ML	2 mL
TPH by FTIR - PT	PE1262-2ML	2 mL
TPH in Water	PE1800-2ML	2 mL
Trace Metals 1 - Whole Volume - WP	PE3132-500ML	500 mL
Trace Metals 1 - WP	PE1132-20ML	20 mL
Trace Metals 1 in Seawater - Whole Volume - WP	PE3163-500ML	500 mL
Trace Metals 2 - Whole Volume - WP	PE3053-500ML	500 mL
Trace Metals 2 - WP	PE1052-20ML	20 mL
Trace Metals 2 in Seawater - Whole Volume - WP	PE3189-500ML	500 mL
Triazine Pesticides - WP	PE1212-2ML	2 mL
Trichlorobenzenes in Water - WP	PE1322-2ML	2 mL
TSS/pH (whole volume) in Seawater - WS	PE1031-500ML	500 mL
Turbidity - Whole Volume - WP	PE3081-500ML	500 mL
Turbidity - WP	PE1081-20ML	20 mL
Uranium - WP	PE1209-20ML	20 mL
Volatile Organic Compounds 1 - WP	PE1250-2ML	2 mL
Volatile Organic Compounds 2 - WP	PE1251-2ML	2 mL
Volatile Residue - WP	PE1091-1.2G	1.2 g
Volatile Residue/Fixed Solids - WP	PE1282-1.2G	1.2 g
Volatiles Nontraditional - WP	PE1284-2ML	2 mL

Waste Water Microbiology PTs

Description	Cat. No.	Pkg
E. coli in Water PT- Quantitative WP	MIC003-2EA	2 ea
Legionella in Water PT - WP	MIC004-2EA	2 ea
Total and Fecal Streptococcus/Enterococcus PT - WP	MIC005-2EA	2 ea
Standard Plate Count PT- WP	MIC012-2EA	2 ea
Listeria PT - WP	MIC019-2EA	2 ea

Environmental Standards

Drinking Water Methods

Drinking Water Methods

These analytical reference standards are specifically designed for monitoring organic chemicals on the National Primary Drinking Water List in raw source water, finished drinking water, and drinking water at all stages of treatment, per methods developed by the US EPA Environmental Monitoring Systems Laboratory in Cincinnati, Ohio (EMSL-CL), under authority of the Safe Drinking Water Act (SDWA).

Safe Drinking Water Act (SDWA) - 500 Series Methods

The National Primary Drinking Water Regulations (NPDWR) and National Secondary Drinking Water Regulations (NSDWR) establish maximum contaminant levels in drinking water for organic compounds. US EPA 500 Series methods are analytical methods for identifying and quantifying volatile organic compounds (VOCs), pesticides, synthetic organic compounds (SOCs), and trihalomethane disinfection byproducts (THMs) in drinking water. These methods call for gas chromatography with a selective detector, gas chromatography/mass spectrometry or high performance liquid chromatography. Copies of these methods may be obtained by visiting epa.gov.

Compound Classification	U.S. EPA Method No.
Carbamates	531.1
Carbonyls	556
Chloracetanilide/Acetamide Herbicide Degradates	535.00
Chlorinated Acids	515.30
Chlorinated Disinfection Byproducts & Solvents	551, 551.10
Chlorinated Pesticides	508, 508.1, 508A
Diquat & Paraquat	549.2
Ethylene dibromide/Dibromochloropropane	504
General Purpose Organics	525, 525.1, 525.2
Glyphosate	547
Haloacetic Acids and Dalapon	552, 552.1, 552.2
Nitrogen & Phosphorous-Containing Pesticides	507
Nitrosamines	521
Organohalide Pesticides & PCBs	505
Phthalate and Adipate Esters	506
Polycyclic Aromatic Hydrocarbons	550, 550.1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	513
Trihalomethanes	501.1, 501.2, 501.3
Volatile Aromatic & Unsaturated Organics	503.1
Volatile Halogenated Organics	502.1, 502.2
Volatile Organics	524.1, 524.2

Method 501.1, 501.2, 501.3

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 501/601 Trihalomethanes Calibration Mix	100 µg/mL each component in methanol	47904	1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i>	<i>Chloroform</i> <i>Dibromochloromethane</i>	
EPA 501/601 Trihalomethanes Calibration Mix	200 µg/mL each component in methanol	458746 48746	1 mL 1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i>	<i>Chloroform</i> <i>Dibromochloromethane</i>	
EPA 501/601 Trihalomethanes Calibration Mix	2000 µg/mL each component in methanol	48140-U 4M8140-U	1 mL 5 × 1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i>	<i>Chloroform</i> <i>Dibromochloromethane</i>	
standard type internal			
Fluorobenzene solution	2000 µg/mL in methanol	48943	1 mL
standard type surrogate			
1-Bromo-4-fluorobenzene solution	2000 µg/mL in methanol	48083	1 mL

Environmental Standards

Drinking Water Methods: *Safe Drinking Water Act (SDWA) - 500 Series Methods*

Method 502.1, 502.2

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 502/524 Volatiles Organic Calibration Mix A (without gases)	200 µg/mL each component in methanol	47933	1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Bromochloromethane</i> <i>Bromodichloromethane</i> <i>Butylbenzene</i> <i>Butylbenzene</i> <i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroform</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>Dibromochloromethane</i> <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>Dibromomethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i>	<i>1,3-Dichloropropane</i> <i>2,2-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>o-Xylene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Propylbenzene</i> <i>Styrene</i> <i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>m-Xylene</i> <i>o-Xylene</i> <i>p-Xylene</i>	
EPA 502/524 Volatiles Organic Calibration Mix A (without gases)	2000 µg/mL each component in methanol	502111 5502111	1 mL 1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Bromochloromethane</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Butylbenzene</i> <i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroform</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>Dibromochloromethane</i> <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>Dibromomethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i>	<i>1,3-Dichloropropane</i> <i>2,2-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Isopropylbenzene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Propylbenzene</i> <i>Styrene</i> <i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
EPA VOC Mix 1	2000 µg/mL each component in methanol	48775 458775	1 mL 1 mL
	<i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Chlorobenzene</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>1,2-Dichlorobenzene</i>	<i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Isopropylbenzene</i> <i>Propylbenzene</i> <i>o-Xylene</i> <i>p-Xylene</i>	
EPA VOC Mix 2	2000 µg/mL each component in methanol	458777 48777	1 mL 1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Butylbenzene</i> <i>Ethylbenzene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Styrene</i>	<i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>m-Xylene</i>	

Environmental Standards

Drinking Water Methods: Safe Drinking Water Act (SDWA) - 500 Series Methods

Description	Concentration	Cat. No.	Qty
EPA VOC Mix 3	2000 µg/mL each component in methanol	458779 48779	1 mL 1 mL
	<i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichloroethane</i> <i>1,2-Dichloropropane</i> <i>1,3-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>cis-1,3-Dichloropropene</i>	<i>trans-1,3-Dichloropropene</i> <i>Hexachloro-1,3-butadiene</i> <i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i>	
EPA VOC Mix 4	2000 µg/mL each component in methanol	458786 48786	1 mL 1 mL
	<i>Bromochloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromomethane</i>	<i>1,1-Dichloroethane</i> <i>2,2-Dichloropropane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i>	
EPA VOC Mix 5	2000 µg/mL each component in methanol	458797 48797	1 mL 1 mL
	<i>Bromodichloromethane</i> <i>Dibromochloromethane</i> <i>1,1-Dichloroethylene</i>	<i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i>	
EPA VOC Mix 6	2000 µg/mL each component in methanol	458799 48799-U	1.5 mL 1.5 mL
	<i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Dichlorodifluoromethane</i> <i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>	
EPA VOC Calibration Standards Kit	-	48804 458804	1 kit 1 kit
	<i>EPA Volatile Organic Compounds Mix 1 (48775), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 2 (48777), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 3 (48779), 1 mL</i>	<i>EPA Volatile Organic Compounds Mix 4 (48786), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 5 (48797), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 6 (48799-U), 1.5 mL</i>	
EPA VOC Mix 7	2000 µg/mL each component in methanol	458802 48802-U	1 mL 1 mL
	<i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromochloromethane</i>	<i>1,4-Dichlorobenzene</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>Trichloroethylene</i> <i>Vinyl chloride</i>	
EPA VOC Mix 8	2000 µg/mL each component in methanol	48803	1 mL
	<i>Chlorobenzene</i> <i>1,2-Dichlorobenzene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>1,2-Dichloropropane</i> <i>Ethylbenzene</i>	<i>Styrene</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>o-Xylene</i> <i>p-Xylene</i>	
EPA Phase V Volatile Organic Compounds Mix 9	2000 µg/mL each component in methanol	47399	1 mL
	<i>Dichloromethane</i> <i>1,2,4-Trichlorobenzene</i>	<i>1,1,2-Trichloroethane</i>	
standard type internal			
1-Chloro-2-fluorobenzene solution	2000 µg/mL in methanol	48369	1 mL
2-Bromo-1-chloropropane solution	20,000 µg/mL in methanol	48713	1 mL
EPA 502 Internal Standard Mix	2000 µg/L each component in methanol	48950-U	1 mL
	<i>2-Bromo-1-chloropropane</i> <i>Fluorobenzene</i>		

Method 503.1

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA VOC Mix 2	2000 µg/mL each component in methanol	458777 48777	1 mL 1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Butylbenzene</i> <i>Ethylbenzene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Styrene</i>	<i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>m-Xylene</i>	

Environmental Standards

Drinking Water Methods: *Safe Drinking Water Act (SDWA) - 500 Series Methods*

Method 503.1 (continued)

Description	Concentration	Cat. No.	Qty
EPA 503.1 Volatiles Mix	2000 µg/mL each component in methanol <i>Hexachloro-1,3-butadiene</i> <i>Tetrachloroethylene</i>	48237	1 mL
	<i>Trichloroethylene</i>		
EPA VOC Mix 1	2000 µg/mL each component in methanol <i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Chlorobenzene</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>1,2-Dichlorobenzene</i>	48775 458775	1 mL 1 mL
	<i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Isopropylbenzene</i> <i>Propylbenzene</i> <i>o-Xylene</i> <i>p-Xylene</i>		
standard type internal/surrogate			
α,α-Trifluorotoluene solution	2000 µg/mL in methanol	48389	1 mL

Method 504

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 504.1 Calibration Solution	2000 µg/mL each component in methanol <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i>	49119-U	1 mL
	<i>1,2,3-Trichloropropane</i>		

Method 505

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 505/525 Pesticides Mix A	500 µg/mL each component in acetone <i>Alachlor</i> <i>Aldrin</i> <i>Dieldrin</i>	47725-U	1 mL
	<i>Lindane</i> <i>Simazine</i>		
EPA 505/525 Update Pesticides Mix A	500 µg/mL each component in acetone <i>Alachlor</i> <i>Aldrin</i> <i>Lindane</i> <i>Dieldrin</i>	47727-U	1 mL
	<i>cis-Nonachlor</i> <i>trans-Nonachlor</i> <i>Simazine</i>		
EPA 505/525 Pesticides Mix B	500 µg/mL each component in acetone <i>Atrazine</i> <i>Endrin</i> <i>Heptachlor</i> <i>Heptachlor exo-epoxide</i>	47726-U	1 mL
	<i>Hexachlorobenzene</i> <i>Hexachlorocyclopentadiene</i> <i>Methoxychlor</i>		
EPA 505/525 Update Pesticides Mix B	500 µg/mL each component in acetone <i>Atrazine</i> <i>α-Chlordane</i> <i>γ-Chlordane</i> <i>Endrin</i> <i>Heptachlor</i>	47728-U	1 mL
	<i>Heptachlor exo-epoxide</i> <i>Hexachlorobenzene</i> <i>Hexachlorocyclopentadiene</i> <i>Methoxychlor</i>		
Aroclor 1016 solution	200 µg/mL in methanol	48701	1 mL
Aroclor 1221 solution	200 µg/mL in methanol	48705	1 mL
Aroclor 1232 solution	200 µg/mL in methanol	48702	1 mL
Aroclor 1242 solution	200 µg/mL in methanol	48706	1 mL
Aroclor 1248 solution	200 µg/mL in methanol	48703	1 mL
Aroclor 1254 solution	200 µg/mL in methanol	48707	1 mL
Aroclor 1260 solution	200 µg/mL in methanol	48704	1 mL
PCB Kit 3	200 µg/mL each component in methanol <i>Aroclor 1016 solution (Supelco 48701), 1 mL</i> <i>Aroclor 1221 solution (Supelco 48705), 1 mL</i> <i>Aroclor 1232 solution (Supelco 48702), 1 mL</i> <i>Aroclor 1242 solution (Supelco 48706), 1 mL</i>	48825	1 kit
	<i>Aroclor 1248 solution (Supelco 48703), 1 mL</i> <i>Aroclor 1254 solution (Supelco 48707), 1 mL</i> <i>Aroclor 1260 solution (Supelco 48704), 1 mL</i>		
Chlordane (mixture of isomers)	5000 µg/mL in methanol	40089	1 mL
α-Chlordane solution	100 µg/mL in hexane	48192	1 mL
γ-Chlordane solution	100 µg/mL in hexane	48193	1 mL
Toxaphene solution	5000 µg/mL in methanol	40111	1 mL

Environmental Standards

Drinking Water Methods: Safe Drinking Water Act (SDWA) - 500 Series Methods

Method 506

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 506 Phthalate Mix (7 component)	1000 µg/mL each component in isooctane <i>Benzyl butyl phthalate</i> <i>Bis(2-ethylhexyl) adipate</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>Dibutyl phthalate</i>	40077-U <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i> <i>Dioctyl phthalate</i>	1 mL
EPA 506 Phthalate Esters Mix 1	500 µg/mL each component in methanol <i>Benzyl butyl phthalate</i> <i>Bis(2-ethylhexyl) adipate</i> <i>Bis(2-ethylhexyl) phthalate</i>	48223 <i>Dibutyl phthalate</i> <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i>	1 mL
EPA Phthalate Esters Mix	2000 µg/mL each component in methanol <i>Bis(2-ethylhexyl) phthalate</i> <i>Benzyl butyl phthalate</i> <i>Dibutyl phthalate</i>	48805-U <i>Di-n-octyl phthalate</i> <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i>	1 mL
Bis(2-ethylhexyl) phthalate solution	2000 µg/mL in methanol	47994	1 mL
Di(2-ethylhexyl)adipate solution	2000 µg/mL in methanol	47995-U	1 mL

Method 507

Calibration standards for this method may be obtained through our Custom Standards department.

Description	Concentration	Cat. No.	Qty
standard type internal			
Triphenyl phosphate solution	500 µg/mL in methyl <i>tert</i> -butyl ether	48064	1 mL
standard type surrogate			
1,3-Dimethyl-2-nitrobenzene solution	250 µg/mL in methyl <i>tert</i> -butyl ether	48063	1 mL

Method 508, 508.1, 508A

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Appendix IX Organochlorine Pesticides Mix	2000 µg/mL each component in hexane: toluene (1:1) <i>Aldrin</i> <i>α-BHC</i> <i>β-BHC</i> <i>Lindane</i> <i>δ-BHC</i> <i>4,4'-DDD solution</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene</i> <i>4,4'-DDT</i> <i>Dieldrin</i>	46960-U <i>α-Endosulfan</i> <i>β-Endosulfan</i> <i>Endosulfan sulfate</i> <i>Endrin</i> <i>Endrin aldehyde</i> <i>Heptachlor</i> <i>Heptachlor exo-epoxide</i> <i>Methoxychlor</i>	1 mL
EPA 508/508.1 Pesticide Mix	1000 µg/mL each component in methyl <i>tert</i> -butyl ether <i>α-Chlordane</i> <i>γ-Chlordane</i> <i>Chlorobenzilate</i> <i>Chloroneb</i> <i>Chlorothalonil</i> <i>Chlorthal-dimethyl</i>	502197 <i>Etridiazole</i> <i>Hexachlorobenzene</i> <i>cis-Permethrin</i> <i>trans-Permethrin</i> <i>Propachlor</i> <i>Trifluralin</i>	1 mL
EPA 508.1 Herbicides Mix	1000 µg/mL each component in acetone <i>Alachlor</i> <i>Atrazine</i> <i>Butachlor</i>	502154 <i>Hexachlorocyclopentadiene</i> <i>Metolachlor</i> <i>Simazine</i>	1 mL
Aroclor 1016 solution	200 µg/mL in methanol	48701	1 mL
Aroclor 1221 solution	200 µg/mL in methanol	48705	1 mL
Aroclor 1232 solution	200 µg/mL in methanol	48702	1 mL
Aroclor 1242 solution	200 µg/mL in methanol	48706	1 mL
Aroclor 1248 solution	200 µg/mL in methanol	48703	1 mL
Aroclor 1254 solution	200 µg/mL in methanol	48707	1 mL
Aroclor 1260 solution	200 µg/mL in methanol	48704	1 mL

Environmental Standards

Drinking Water Methods: *Safe Drinking Water Act (SDWA) - 500 Series Methods*

Method 508, 508.1, 508A (continued)

Description	Concentration	Cat. No.	Qty
PCB Kit 3	200 µg/mL each component in methanol <i>Aroclor 1016 solution (Supelco 48701), 1 mL</i> <i>Aroclor 1221 solution (Supelco 48705), 1 mL</i> <i>Aroclor 1232 solution (Supelco 48702), 1 mL</i> <i>Aroclor 1242 solution (Supelco 48706), 1 mL</i> <i>Aroclor 1248 solution (Supelco 48703), 1 mL</i> <i>Aroclor 1254 solution (Supelco 48707), 1 mL</i> <i>Aroclor 1260 solution (Supelco 48704), 1 mL</i>	48825	1 kit
Biphenyl	-	442487	1000 mg
Biphenyl solution	2000 µg/mL in methanol	48161	1 mL
Chlordane (mixture of isomers)	5000 µg/mL in methanol	40089	1 mL
α-Chlordane solution	100 µg/mL in hexane	48192	1 mL
γ-Chlordane solution	100 µg/mL in hexane	48193	1 mL
Cyanazine solution	2000 µg/mL in methanol	48592	1 mL
Hexachlorocyclopentadiene solution	5000 µg/mL in methanol	40051	1 mL
Toxaphene solution	5000 µg/mL in methanol	40111	1 mL
standard type internal			
Pentachloronitrobenzene solution	5000 µg/mL in methanol	40156	1 mL
standard type internal/surrogate			
4,4'-Dibromobiphenyl solution	2000 µg/mL in methylene chloride	48790-U	1 mL
standard type surrogate			
4,4'-Dichlorobiphenyl solution	500 µg/mL in isooctane	48260-U	1 mL
standard type degradation check mix			
DDT-Endrin Mix	500 µg/mL each component in methanol <i>4,4'-DDT</i> <i>Endrin</i>	48282	1 mL
standard type performance			
EPA 508.1 Instrument Check Mix	in methyl <i>tert</i> -butyl ether (varied) <i>δ-BHC, 40 µg/mL</i> <i>Chlorothalonil, 50 µg/mL</i> <i>Chlorpyrifos, 2 µg/mL</i> <i>DCPA (dacthal), 500 µg/mL</i>	507989	1 mL

Method 513

Description	Concentration	Cat. No.	Qty
standard type calibration			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin solution	10 µg/mL in toluene	48599	1 mL

Method 515.3

Description	Concentration	Cat. No.	Qty
standard type internal/surrogate			
4,4'-Dibromooctafluorobiphenyl solution	250 µg/mL in acetone	47644-U	1 mL
4,4'-Dibromooctafluorobiphenyl solution	2000 µg/mL in methylene chloride	48791	1 mL

Method 521

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 521 Nitrosamine Mix	2000 µg/mL each component in methylene chloride <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodibutylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>N-Nitrosomethylethylamine</i> <i>N-Nitrosodiethylamine</i> <i>1-Nitrosopyrrolidine</i> <i>1-Nitrosopiperidine</i>	40035-U	1 mL

Environmental Standards

Drinking Water Methods: Safe Drinking Water Act (SDWA) - 500 Series Methods

Method 524.1, 524.2

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 502/524.2 VOC Mix	200 µg/mL each component in methanol Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene cis-1,2-Dichloroethylene trans-1,2-Dichloroethylene Dichloromethane	47932	1 mL
	1,2-Dichloropropane 1,3-Dichloropropane 2,2-Dichloropropane 1,1-Dichloro-1-propene cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene Hexachloro-1,3-butadiene Isopropylbenzene p-Isopropyltoluene Naphthalene Propylbenzene Styrene 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene Trichlorofluoromethane 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl chloride o-Xylene m-Xylene p-Xylene		
EPA 524.2 Rev 4 Update Ketones Mix	200 µg/mL each component in methanol: water (9:1) Acetone 2-Butanone 1,1-Dichloro-2-propanone	47573-U	1 mL
		2-Hexanone 4-Methyl-2-pentanone	
EPA 524.2 Rev 4 Update Ketones Mix	2000 µg/mL in methanol: water (9:1) Acetone 2-Butanone 1,1-Dichloro-2-propanone	47428-U 457428-U	1 mL 1 mL
		2-Hexanone 4-Methyl-2-pentanone	
EPA 524 Rev 4 Update Mix	200 µg/mL each component in methanol Acrylonitrile Allyl chloride tert-Butyl methyl ether Carbon disulfide Chloroacetonitrile 1-Chlorobutane trans-1,4-Dichloro-2-butene Diethyl ether Ethyl methacrylate	506524	1 mL
		Hexachloroethane Methacrylonitrile Methyl acrylate Methyl methacrylate Nitrobenzene 2-Nitropropane Pentachloroethane Propionitrile Tetrahydrofuran	
EPA 524.2 Rev 4 Update Mix	2000 µg/mL in methanol Acrylonitrile Allyl chloride tert-Butyl methyl ether Carbon disulfide Chloroacetonitrile 1-Chlorobutane trans-1,4-Dichloro-2-butene Diethyl ether Ethyl methacrylate	47427-U	1 mL
		Hexachloroethane Methacrylonitrile Methyl acrylate Methyl methacrylate Nitrobenzene 2-Nitropropane Pentachloroethane Propionitrile Tetrahydrofuran	
EPA 524 Revision 4 Calibration Kit	- EPA 524 Rev 4 Update Mix (506524), 1 mL EPA 524.2 VOC Mix (47932), 1 mL	47438-U	4 × 1 mL
		Iodomethane solution (47406), 1 mL EPA 524.2 Rev 4 Update Ketones Mix (47573-U), 1 mL	

Environmental Standards

Drinking Water Methods: *Safe Drinking Water Act (SDWA) - 500 Series Methods*

Method 524.1, 524.2 (continued)

Description	Concentration	Cat. No.	Qty
EPA 502/524 Volatiles Organic Calibration Mix A (without gases)	2000 µg/mL each component in methanol	502111 5S02111	1 mL 1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Bromochloromethane</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Butylbenzene</i> <i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroform</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>Dibromochloromethane</i> <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>Dibromomethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i>	<i>1,3-Dichloropropane</i> <i>2,2-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Isopropylbenzene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Propylbenzene</i> <i>Styrene</i> <i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
EPA 502/524 Volatiles Organic Calibration Mix A (without gases)	200 µg/mL each component in methanol	47933	1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Bromochloromethane</i> <i>Bromodichloromethane</i> <i>Butylbenzene</i> <i>Butylbenzene</i> <i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroform</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>Dibromochloromethane</i> <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>Dibromomethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i>	<i>1,3-Dichloropropane</i> <i>2,2-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>o-Xylene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Propylbenzene</i> <i>Styrene</i> <i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>m-Xylene</i> <i>o-Xylene</i> <i>p-Xylene</i>	
EPA 524 VOC Mix B	200 µg/mL each component in methanol	47934	1 mL
	<i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Dichlorodifluoromethane</i> <i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>	
EPA 524 Calibration Standards Kit	-	47936	1 kit
	<i>EPA 524 Volatile Organic Compounds Mix A (47933), 1 mL</i>	<i>EPA 524 Volatile Organic Compounds Mix B (47934), 1 mL</i>	
EPA VOC Mix 1	2000 µg/mL each component in methanol	48775 4S8775	1 mL 1 mL
	<i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Chlorobenzene</i> <i>2-Chlorotoluene</i> <i>4-Chlorotoluene</i> <i>1,2-Dichlorobenzene</i>	<i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Isopropylbenzene</i> <i>Propylbenzene</i> <i>o-Xylene</i> <i>p-Xylene</i>	
EPA VOC Mix 2	2000 µg/mL each component in methanol	4S8777 48777	1 mL 1 mL
	<i>Benzene</i> <i>Bromobenzene</i> <i>Butylbenzene</i> <i>Ethylbenzene</i> <i>p-Isopropyltoluene</i> <i>Naphthalene</i> <i>Styrene</i>	<i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i> <i>m-Xylene</i>	

Environmental Standards

Drinking Water Methods: Safe Drinking Water Act (SDWA) - 500 Series Methods

Description	Concentration	Cat. No.	Qty
EPA VOC Mix 3	2000 µg/mL each component in methanol	458779 48779	1 mL 1 mL
	<i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichloroethane</i> <i>1,2-Dichloropropane</i> <i>1,3-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>cis-1,3-Dichloropropene</i>	<i>trans-1,3-Dichloropropene</i> <i>Hexachloro-1,3-butadiene</i> <i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i>	
EPA VOC Mix 4	2000 µg/mL each component in methanol	458786 48786	1 mL 1 mL
	<i>Bromochloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromomethane</i>	<i>1,1-Dichloroethane</i> <i>2,2-Dichloropropane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i>	
EPA VOC Mix 5	2000 µg/mL each component in methanol	458797 48797	1 mL 1 mL
	<i>Bromodichloromethane</i> <i>Dibromochloromethane</i> <i>1,1-Dichloroethylene</i>	<i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i>	
EPA VOC Mix 6	2000 µg/mL each component in methanol	458799 48799-U	1.5 mL 1.5 mL
	<i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Dichlorodifluoromethane</i> <i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>	
EPA VOC Calibration Standards Kit	-	48804 458804	1 kit 1 kit
	<i>EPA Volatile Organic Compounds Mix 1 (48775), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 2 (48777), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 3 (48779), 1 mL</i>	<i>EPA Volatile Organic Compounds Mix 4 (48786), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 5 (48797), 1 mL</i> <i>EPA Volatile Organic Compounds Mix 6 (48799-U), 1.5 mL</i>	
524.2 Add-On Mix	in methanol (varied)	861314 8561314	1 mL 1 mL
	<i>Acrylonitrile, 20000 µg/mL</i> <i>Allyl chloride, 2000 µg/mL</i> <i>Carbon disulfide, 2000 µg/mL</i> <i>Chloroacetone, 20000 µg/mL</i> <i>1-Chlorobutane, 2000 µg/mL</i> <i>trans-1,4-Dichloro-2-butene, 2000 µg/mL</i> <i>Diethyl ether, 2000 µg/mL</i> <i>Ethyl methacrylate, 2000 µg/mL</i> <i>Hexachloroethane, 2000 µg/mL</i>	<i>Methacrylonitrile, 2000 µg/mL</i> <i>Methyl acrylate, 2000 µg/mL</i> <i>Methyl methacrylate, 2000 µg/mL</i> <i>Nitrobenzene, 20000 µg/mL</i> <i>2-Nitropropane, 20000 µg/mL</i> <i>Pentachloroethane, 2000 µg/mL</i> <i>Propionitrile, 20000 µg/mL</i> <i>Tetrahydrofuran, 2000 µg/mL</i>	
Discretionary Aromatic Volatiles Mix	50 µg/mL each component in methanol	47273	1 mL
	<i>Butylbenzene</i> <i>sec-Butylbenzene</i> <i>tert-Butylbenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Isopropylbenzene</i> <i>p-Isopropyltoluene</i>	<i>Naphthalene</i> <i>Propylbenzene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>1,2,4-Trimethylbenzene</i> <i>1,3,5-Trimethylbenzene</i>	
Volatile Organic Contaminants Mix 1	50 µg/mL each component in methanol	47274	1 mL
	<i>Bromobenzene</i> <i>4-Chlorotoluene</i> <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>Dibromomethane</i>	<i>2,2-Dichloropropane</i> <i>1,1-Dichloro-1-propene</i> <i>Styrene</i> <i>p-Xylene</i>	
Volatile Organic Contaminants Mix 2	50 µg/mL each component in methanol	47275	1 mL
	<i>Bromochloromethane</i> <i>2-Chlorotoluene</i> <i>cis-1,2-Dichloroethylene</i> <i>1,3-Dichloropropane</i>	<i>1,1,1,2-Tetrachloroethane</i> <i>1,2,3-Trichloropropane</i> <i>o-Xylene</i>	
standard type internal			
Fluorobenzene solution	2000 µg/mL in methanol	48943	1 mL
EPA 524 Internal Standard Mix	2000 µg/mL each component in methanol	48948	1 mL
	<i>1,2-Dichlorobenzene-d₄</i> <i>Fluorobenzene</i>		
standard type surrogate			
EPA 524 Surrogate Standard Mix	2000 µg/mL each component in methanol	48466	1 mL
	<i>1-Bromo-4-fluorobenzene</i> <i>1,2-Dichlorobenzene-d₄</i>		
1-Bromo-4-fluorobenzene solution	2000 µg/mL in methanol	48083	1 mL
1,2-Dichlorobenzene-d ₄ solution	2000 µg/mL in methanol	48952-U	1 mL

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Drinking Water Methods: *Safe Drinking Water Act (SDWA) - 500 Series Methods*

Method 524.1, 524.2 (continued)

Description	Concentration	Cat. No.	Qty
standard type fortification			
EPA 524.2 Fortification Solution	2000 µg/mL each component in methanol 4-Bromofluorobenzene 1,2-Dichlorobenzene-d ₄	47358-U	1 mL
	Fluorobenzene		

Method 525, 525.1, 525.2

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 525 Semivolatiles Calibration Mix without Pesticides	1000 µg/mL each component in acetone (except where noted)	506540	1 mL
	Acenaphthylene Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene Benzyl butyl phthalate Bis(2-ethylhexyl) adipate Bis(2-ethylhexyl) phthalate Chrysene Dibenz[a,h]anthracene Dibutyl phthalate	Diethyl phthalate Dimethyl phthalate 2,4-Dinitrotoluene 2,6-Dinitrotoluene Fluorene Hexachlorobenzene Hexachlorocyclopentadiene Indeno[1,2,3-cd]pyrene Isopharone Pentachlorophenol, 4000 µg/mL Phenanthrene Pyrene	
EPA 525, 525.1 PCB Mix	500 µg/mL each component in hexane	48246	1 mL
	2-Chlorobiphenyl 2,3-Dichlorobiphenyl 2,2',3,3',4,4',6-Heptachlorobiphenyl 2,2',4,4',5,6'-Hexachlorobiphenyl	2,2',3,3',4,5',6,6'-Octachlorobiphenyl 2,2',3',4,6-Pentachlorobiphenyl 2,2',4,4'-Tetrachlorobiphenyl 2,4',5-Trichlorobiphenyl	
EPA 505/525 Pesticides Mix A	500 µg/mL each component in acetone	47725-U	1 mL
	Alachlor Aldrin Dieldrin	Lindane Simazine	
EPA 505/525 Update Pesticides Mix A	500 µg/mL each component in acetone	47727-U	1 mL
	Alachlor Aldrin Lindane Dieldrin	cis-Nonachlor trans-Nonachlor Simazine	
EPA 505/525 Pesticides Mix B	500 µg/mL each component in acetone	47726-U	1 mL
	Atrazine Endrin Heptachlor Heptachlor exo-epoxide	Hexachlorobenzene Hexachlorocyclopentadiene Methoxychlor	
EPA 505/525 Update Pesticides Mix B	500 µg/mL each component in acetone	47728-U	1 mL
	Atrazine α-Chlordane γ-Chlordane Endrin Heptachlor	Heptachlor exo-epoxide Hexachlorobenzene Hexachlorocyclopentadiene Methoxychlor	
EPA 525 Update Phthalate Esters Mix	500 µg/mL each component in methanol	47973	1 mL
	Benzyl butyl phthalate Bis(2-ethylhexyl) adipate Bis(2-ethylhexyl) phthalate Dibutyl phthalate	Diethyl phthalate Dimethyl phthalate Pentachlorophenol	
EPA 525 PAH Mix A	500 µg/mL each component in methylene chloride	48953-U	1 mL
	Acenaphthylene Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene	Chrysene Dibenz[a,h]anthracene Fluorene Indeno[1,2,3-cd]pyrene Phenanthrene Pyrene	
EPA 525 PAH Mix B	500 µg/mL each component in acetone	48249	1 mL
	Acenaphthylene Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene	Chrysene Dibenz[a,h]anthracene Fluorene Indeno[1,2,3-cd]pyrene Phenanthrene Pyrene	
Toxaphene solution	500 µg/mL in methanol	48243	1 mL

Environmental Standards

Drinking Water Methods: Safe Drinking Water Act (SDWA) - 500 Series Methods

Description	Concentration	Cat. No.	Qty
standard type internal			
EPA 525,525.1 Internal Standard Mix	500 µg/mL each component in acetone <i>Acenaphthene-d₁₀</i> <i>Chryseno-d₁₂</i>	<i>Phenanthrene-d₁₀</i> 48242	1 mL
standard type surrogate			
Perylene-d ₁₂ solution	2000 µg/mL in methylene chloride	48081	1 mL
standard type fortification			
EPA 525 Fortification Solution A	2000 µg/mL each component in methylene chloride <i>Acenaphthene-d₁₀</i> <i>Chryseno-d₁₂</i>	<i>Phenanthrene-d₁₀</i> 48230-U	1 mL
EPA 525 Fortification Solution B	500 µg/mL each component in acetone <i>Acenaphthene-d₁₀</i> <i>Chryseno-d₁₂</i>	<i>Perylene-d₁₂</i> <i>Phenanthrene-d₁₀</i> 48099	1 mL

Method 531.1

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 531.1 Carbamate Mix	100 µg/mL each component in methanol <i>Aldicarb</i> <i>Aldicarb-sulfone</i> <i>Aldicarb-sulfoxide</i> <i>Carbofuran</i> <i>Carbofuran-3-hydroxy</i>	<i>1-Naphthyl-N-methylcarbamate</i> <i>Mercaptodimethur</i> <i>Methomyl</i> <i>Oxamyl</i> <i>Propoxur</i> 46856-U	1 mL

Method 535

Description	Cat. No.	Pkg
Acetochlor ESA	34145-10MG	10 mg
Acetochlor OA	34144-10MG	10 mg
Alachlor ESA	34147-10MG	10 mg
Alachlor OA	34146-10MG	10 mg
Flufenacet ESA	34154-10MG	10 mg
Flufenacet OA	34153-10MG	10 mg
Metolachlor ESA	34149-10MG	10 mg
Metolachlor OA	34148-10MG	10 mg
Propachlor ESA	34152-10MG	10 mg
Propachlor OA	34151-10MG	10 mg
Butachlor ESA	34211-10MG-R	10 mg

Method 547

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 547 Glyphosate Solution	1000 µg/mL in H ₂ O	44690-U	1 mL

Method 549.2

Description	Cat. No.	Pkg
Diquat dibromide	45422-250MG-R	250 mg
Paraquat dichloride	36541-100MG	100 mg

Method 550, 550.1

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA TCL PAH Mix	in acetonitrile: methanol (9:1) (varied) <i>Acenaphthene</i> , 1000 µg/mL <i>Acenaphthylene</i> , 500 µg/mL <i>Anthracene</i> , 20 µg/mL <i>Benz[a]anthracene</i> , 50 µg/mL <i>Benzo[b]fluoranthene</i> , 20 µg/mL <i>Benzo[k]fluoranthene</i> , 20 µg/mL <i>Benzo[ghi]perylene</i> , 80 µg/mL <i>Benzo[a]pyrene</i> , 50 µg/mL	<i>Chryseno</i> , 50 µg/mL <i>Dibenz[a,h]anthracene</i> , 200 µg/mL <i>Fluoranthene</i> , 50 µg/mL <i>Fluorene</i> , 100 µg/mL <i>Indeno[1,2,3-cd]pyrene</i> , 50 µg/mL <i>Naphthalene</i> , 500 µg/mL <i>Phenanthrene</i> , 40 µg/mL <i>Pyrene</i> , 100 µg/mL	49156 1 mL

Environmental Standards

Drinking Water Methods: *Safe Drinking Water Act (SDWA) - 500 Series Methods*

Method 551, 551.1

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 551A Halogenated Volatiles Mix	2000 µg/mL each component in acetone <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromochloromethane</i>	48045 <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>Trichloroethylene</i>	1 mL
EPA 551B Halogenated Volatiles Mix	2000 µg/mL each component in acetone <i>Bromochloroacetonitrile</i> <i>Dibromoacetonitrile</i> <i>Dichloroacetonitrile</i> <i>1,1-Dichloro-2-propanone</i>	48046 <i>1,1,1-Trichloroacetone</i> <i>Trichloroacetonitrile</i> <i>Trichloronitromethane</i>	1 mL
Chloral hydrate solution	1000 µg/mL in acetonitrile	47335-U	1 mL
EPA 551 Disinfection Byproducts Kit	- <i>EPA 551A Halogenated Volatiles Mix (48045), 1 mL</i> <i>Chloral hydrate solution (47335-U), 1 mL</i>	48112 <i>EPA 551B Halogenated Volatiles Mix (48046), 1 mL</i>	1 kit

Method 552, 552.1, 552.2, 552.3

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 552 Halogenated Acetic Acids Mix	2000 µg/mL each component in methyl <i>tert</i> -butyl ether <i>Bromoacetic acid</i> <i>Bromochloroacetic acid</i> <i>Chloroacetic acid</i>	48047 <i>Dibromoacetic acid</i> <i>Dichloroacetic acid</i> <i>Trichloroacetic acid</i>	1 mL
EPA 552 Methyl Esters Mix	1000 µg/mL each component in methyl <i>tert</i> -butyl ether <i>Methyl bromoacetate</i> <i>Methyl bromochloroacetate</i> <i>Methyl chloroacetate</i>	47598-U <i>Methyl dibromoacetate</i> <i>Methyl dichloroacetate</i> <i>Methyl trichloroacetate</i>	1 mL
EPA 552.1 Acids Calibration Mix with Surrogate	in methyl <i>tert</i> -butyl ether (varied) <i>Bromoacetic acid, 200 µg/mL</i> <i>Bromochloroacetic acid, 200 µg/mL</i> <i>2-Bromopropionic acid, 100 µg/mL</i> <i>Chloroacetic acid, 300 µg/mL</i>	47652-U <i>Dibromoacetic acid, 100 µg/mL</i> <i>Dichloroacetic acid, 300 µg/mL</i> <i>2,2-Dichloropropionic acid, 200 µg/mL</i> <i>Trichloroacetic acid, 100 µg/mL</i>	1 mL
EPA 552.2 Acids Calib Mix with Surrogate	in methyl <i>tert</i> -butyl ether (varied) <i>Bromoacetic acid, 200 µg/mL</i> <i>Bromochloroacetic acid, 200 µg/mL</i> <i>Bromodichloroacetic acid, 200 µg/mL</i> <i>2-Bromopropionic acid, 100 µg/mL</i> <i>Chloroacetic acid, 300 µg/mL</i> <i>Dibromochloroacetic acid, 200 µg/mL</i>	47629-U <i>Dibromoacetic acid, 100 µg/mL</i> <i>Dichloroacetic acid, 300 µg/mL</i> <i>2,2-Dichloropropionic acid, 200 µg/mL</i> <i>Tribromoacetic acid, 100 µg/mL</i> <i>Trichloroacetic acid, 100 µg/mL</i>	1 mL
EPA 552.2 Haloacetic Acids Mix	2000 µg/mL each component in methyl <i>tert</i> -butyl ether <i>Bromoacetic acid</i> <i>Bromochloroacetic acid</i> <i>Bromodichloroacetic acid</i> <i>Chloroacetic acid</i> <i>Dibromochloroacetic acid</i>	49107-U <i>Dibromoacetic acid</i> <i>Dichloroacetic acid</i> <i>Tribromoacetic acid</i> <i>Trichloroacetic acid</i>	1 mL
EPA 552.2 Methyl Ester Calibration Mix w/ Surrogate	in methyl <i>tert</i> -butyl ether (varied) <i>Methyl bromoacetate, 200 µg/mL</i> <i>Methyl bromochloroacetate, 200 µg/mL</i> <i>Methyl bromodichloroacetate, 200 µg/mL</i> <i>Methyl 2-bromopropionate, 100 µg/mL</i> <i>Methyl chloroacetate, 300 µg/mL</i> <i>Methyl chlorodibromoacetate, 200 µg/mL</i>	47630-U <i>Methyl dibromoacetate, 100 µg/mL</i> <i>Methyl dichloroacetate, 300 µg/mL</i> <i>Methyl 2,2-dichloropropionate, 200 µg/mL</i> <i>Methyl tribromoacetate, 100 µg/mL</i> <i>Methyl trichloroacetate, 100 µg/mL</i>	1 mL
EPA 552.2 Acids Calibration Mix	in methyl <i>tert</i> -butyl ether (varied) <i>Bromoacetic acid, 400 µg/mL</i> <i>Bromochloroacetic acid, 400 µg/mL</i> <i>Bromodichloroacetic acid, 400 µg/mL</i> <i>Chloroacetic acid, 600 µg/mL</i> <i>Dibromochloroacetic acid, 1000 µg/mL</i>	47787 <i>Dibromoacetic acid, 200 µg/mL</i> <i>Dichloroacetic acid, 600 µg/mL</i> <i>Tribromoacetic acid, 2000 µg/mL</i> <i>Trichloroacetic acid, 200 µg/mL</i>	1 mL
EPA 552.2 Esters Calibration Mix (without Dalapon)	in methyl <i>tert</i> -butyl ether (varied) <i>Methyl bromoacetate, 400 µg/mL</i> <i>Methyl bromochloroacetate, 400 µg/mL</i> <i>Methyl bromodichloroacetate, 400 µg/mL</i> <i>Methyl chloroacetate, 600 µg/mL</i> <i>Methyl chlorodibromoacetate, 1000 µg/mL</i>	47788 <i>Methyl dibromoacetate, 200 µg/mL</i> <i>Methyl dichloroacetate, 600 µg/mL</i> <i>Methyl tribromoacetate, 2000 µg/mL</i> <i>Methyl trichloroacetate, 200 µg/mL</i>	1 mL

Environmental Standards

Drinking Water Methods: Safe Drinking Water Act (SDWA) - 500 Series Methods

Description	Concentration	Cat. No.	Qty
Bromoacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47655-U	1 mL
Bromochloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47659-U	1 mL
Bromodichloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47278	1 mL
Chloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47654-U	1 mL
2,2-Dichloropropionic acid	1000 µg/mL in methyl <i>tert</i> -butyl ether	47656-U	1 mL
Dibromochloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47277	1 mL
Dibromoacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47660-U	1 mL
Dichloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47657-U	1 mL
Tribromoacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47729-U	1 mL
Trichloroacetic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47658-U	1 mL
Methyl bromoacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47662-U	1 mL
Methyl bromochloroacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47666-U	1 mL
Methyl 2-bromobutyrate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	44929-U	1 mL
Methyl bromodichloroacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47761	1 mL
Methyl chloroacetate	1000 µg/mL in methyl <i>tert</i> -butyl ether	47661-U	1 mL
Methyl chlorodibromoacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47762	1 mL
Dalapon methyl ester solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47663-U	1 mL
Methyl dibromoacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47667-U	1 mL
Methyl dichloroacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47664-U	1 mL
Methyl tribromoacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47730-U	1 mL
Methyl trichloroacetate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47665-U	1 mL
standard type internal			
1,2,3-Trichloropropane solution	200 µg/mL in methanol	48355	1 mL
1,2,3-Trichloropropane solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47669-U	1 mL
standard type surrogate			
3,5-Dichlorobenzoic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	502316	1 mL
2,3-Dichloropropionic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47670-U	1 mL
2-Bromopropionic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47645	1 mL
2,3-Dibromopropionic acid solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47789	1 mL
Methyl-2-bromopropionate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	47668-U	1 mL
Methyl 2,3-dibromopropionate solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	46970-U	1 mL

Method 556, 556.1

Description	Cat. No.	Pkg
Formaldehyde O-pentafluorophenylmethyl-oxime	41558-10MG	10 mg
Propionaldehyde O-pentafluorophenylmethyl-oxime	43508-10MG	10 mg
Valeraldehyde-O-pentafluorophenylmethyl-oxime	66156-10MG	10 mg

Drinking Water Odor Standards

Description	Concentration	Cat. No.	Qty
(±)-Geosmin solution	100 µg/mL in methanol	47522-U 4M7522-U	1 mL 5 × 2 mL
2-Methylisoborneol solution	100 µg/mL in methanol	47523-U 4M7523-U	1 mL 5 × 2 mL
(±)-Geosmin and 2-Methylisoborneol Solution	100 µg/mL in methanol	47525-U	1 mL
	(±)-Geosmin	2-Methylisoborneol	
2,4,6-Trichloroanisole solution	100 µg/mL in methanol	47526-U	1 mL
2-Isopropyl-3-methoxy-pyrazine solution	100 µg/mL in methanol	47527-U	1 mL
2-Isobutyl-3-methoxy-pyrazine solution	100 µg/mL in methanol	47528-U	1 mL
Drinking Water Odor Standards Kit	-	47529-U	6 × 1 mL
	(±) Geosmin (47522-U), 1 mL 2-Methylisoborneol (47523-U), 1 mL (±) Geosmin and 2-Methylisoborneol (47525-U), 1 mL	2,4,6-Trichloroanisole (47526-U), 1 mL 2-Isopropyl-3-methoxy-pyrazine (47527-U), 1 mL 2-Isobutyl-3-methoxy-pyrazine (47528-U), 1 mL	

Environmental Standards

Drinking Water Methods: *Related Derivatization Products*

Related Derivatization Products

The Diazald Kit is a set of distillation glassware designed for safely preparing diazomethane (~100 mmol). No sharp edges on ground-glass joints. The 19/22 Clear-Seal tapered joints do not require grease even for vacuum applications, thus avoiding that source of contamination.

For replacement parts, contact our Technical Service department (phone 800-359-3041 or 814-359-3041).

Description	Concentration	Cat. No.	Qty
Methanolic H ₂ SO ₄	10 % (v/v) in methanol	506516	6 × 5 mL
Diazald® kit with Clear-Seal® joints	-	Z100250-1KT	1 kit
<p><i>Aldrich® West condenser w/ Clear-Seal® joint (Aldrich Z100307)</i> <i>Aldrich® single-neck round-bottom flask with Clear-Seal® joint (Aldrich Z100331)</i></p> <p><i>Aldrich® bent vacuum-distilling adapter (Aldrich Z100293)</i> <i>Aldrich® single-neck round-bottom flask with Clear-Seal® joint (Aldrich Z100358)</i></p> <p><i>Aldrich® Claisen adapter (Aldrich Z100269)</i> <i>Aldrich® single-neck round-bottom flask with Clear-Seal® joint (Aldrich Z100366)</i></p> <p><i>Aldrich® three-way adapter with Clear-Seal® joints (Aldrich Z100277)</i> <i>Aldrich® single-neck round-bottom flask with Clear-Seal® joint (Aldrich Z100374)</i></p> <p><i>Distilling column (Aldrich Z100315)</i> <i>Wheaton connecting adapter (Aldrich Z106283)</i></p> <p><i>Gas-inlet tube for Aldrich® Glassware kits (Aldrich Z122513)</i> <i>PTFE stopper for Macro Diazald® kit (Aldrich Z100390)</i></p> <p><i>Aldrich® single-neck round-bottom flask with Clear-Seal® joint (Aldrich Z100323)</i> <i>Separatory funnel with PTFE stopcock and 19/22 Clear-Seal® joint (Aldrich Z100382)</i></p>			

Wastewater Methods

These analytical reference standards are specifically designed for monitoring organic chemicals on the Priority Pollutants List in municipal and industrial wastewater per methods developed by the US EPA Environmental Monitoring Systems Laboratory in Cincinnati, Ohio (EMSL/CL), under authority of the Clean Water Act (CWA).

Clean Water Act (CWA) - 600 Series Methods



US EPA 600 Series methods are analytical methods for identifying and quantifying volatile organic compounds, pesticides, and synthetic organic compounds ("Priority Pollutants") in municipal and industrial wastewater. Most of these methods call for gas chromatography with a selective detector or for gas chromatography/mass spectrometry; a few methods call for high performance liquid chromatography or allow the analyst to choose between GC and HPLC. Packed GC columns are described in the 600 Series methods, but chromatographic conditions can be changed (e.g., capillary columns may be used) if the changes do not make the method "less accurate or less precise" than the standard method.

Compound Classification	U.S. EPA Method No.
Acids (Phenols), Base-Neutrals, Organochlorine Pesticides & PCBs	625
Acrolein/Acrylonitrile	603
Benzidine/3,3'-Dichlorobenzidine	605
Benomyl and Carbendazim	631
Cyanazine	629
Dinitroaniline Pesticides	627
Haloethers	611
Nitrosamines	607
Organochlorine Pesticides and PCBs	608
Phenols	604
Phthalate Esters	606
Polynuclear Aromatic Hydrocarbons (PAHs)	610
Purgeable Aromatics	602
Purgeable Halocarbons	601
Purgeable Halocarbons	624
2,3,7,8-Tetrachlorodibenzo-p-dioxin	613

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 601

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 601 Purgeable Mix w/o gases including 2-CEVE	2000 µg/mL each component in methanol		- 47431-U	1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>2-Chloroethyl vinyl ether</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i>	<i>1,1-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i>		
EPA VOC Mix 6	2000 µg/mL each component in methanol		 458799 48799-U	1.5 mL 1.5 mL
	<i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Dichlorodifluoromethane</i> <i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>		
EPA 601/602 Calibration Mix includes 2-CEVE	2000 µg/mL each component in methanol		- 47507-U	1 mL
	<i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>2-Chloroethyl vinyl ether</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i>	<i>1,1-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i>		
EPA 601 Purgeable Halocarbons Mix	2000 µg/mL each component in methanol		- 46964	1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i>	<i>1,1-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i>		
EPA 602 Purgeable Aromatics Mix	2000 µg/mL each component in methanol		- 46965	1 mL
	<i>Benzene</i> <i>Chlorobenzene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i>	<i>1,4-Dichlorobenzene</i> <i>Ethylbenzene</i> <i>Toluene</i>		
2-Chloroethyl vinyl ether solution	200 µg/mL in methanol		- 48672	1 mL
2-Chloroethyl vinyl ether solution	5000 µg/mL in methanol		- 40017	1 mL
EPA 501/601 Trihalomethanes Calibration Mix	100 µg/mL each component in methanol		- 47904	1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i>	<i>Chloroform</i> <i>Dibromochloromethane</i>		
EPA 501/601 Trihalomethanes Calibration Mix	200 µg/mL each component in methanol		 458746 48746	1 mL 1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i>	<i>Chloroform</i> <i>Dibromochloromethane</i>		
EPA 501/601 Trihalomethanes Calibration Mix	2000 µg/mL each component in methanol		- 48140-U 4M8140-U	1 mL 5 × 1 mL
	<i>Bromodichloromethane</i> <i>Bromoform</i>	<i>Chloroform</i> <i>Dibromochloromethane</i>		
Dibromochloromethane solution	200 µg/mL in methanol		- 48608	1 mL
Bromodichloromethane solution	200 µg/mL in methanol		- 48615	1 mL
Bromodichloromethane solution	5000 µg/mL in methanol		- 40046	1 mL
Bromoform solution	5000 µg/mL in methanol		- 40212	1 mL

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 601 (continued)

Description	Concentration		Cat. No.	Qty
Chloroform solution	200 µg/mL in methanol	-	48603	1 mL
Chloroform solution	5000 µg/mL in methanol	-	40021	1 mL
Dibromochloromethane solution	5000 µg/mL in methanol	-	40200-U	1 mL
EPA 601 Purgeables Performance Mix	in methanol (varied conc.)	-	48747	1 mL
	Carbon tetrachloride, 120 µg/mL Chlorobenzene, 600 µg/mL 1,2-Dichlorobenzene, 600 µg/mL 1,3-Dichlorobenzene, 600 µg/mL 1,4-Dichlorobenzene, 600 µg/mL 1,1-Dichloroethane, 120 µg/mL 1,2-Dichloroethane, 120 µg/mL 1,1-Dichloroethylene, 120 µg/mL trans-1,2-Dichloroethylene, 120 µg/mL	Dichloromethane, 600 µg/mL 1,2-Dichloropropane, 120 µg/mL cis-1,3-Dichloropropene, 120 µg/mL trans-1,3-Dichloropropene, 120 µg/mL 1,1,2,2-Tetrachloroethane, 120 µg/mL Tetrachloroethylene, 120 µg/mL 1,1,1-Trichloroethane, 120 µg/mL 1,1,2-Trichloroethane, 120 µg/mL Trichloroethylene, 120 µg/mL		
standard type internal				
EPA Purgeable Internal Standard Mix	20,000 µg/mL each component in methanol	-	48864	1 mL
	Bromochloromethane 2-Bromo-1-chloropropane	1,4-Dichlorobutane		
1,4-Dichlorobutane solution	2000 µg/mL in methanol	-	48066	1 mL
2-Bromo-1-chloropropane solution	20,000 µg/mL in methanol	-	48713	1 mL
standard type internal/surrogate				
2-Bromo-1-chloropropane solution	2000 µg/mL in methanol	-	48088	1 mL
standard type surrogate				
Bromochloromethane solution	2000 µg/mL in methanol	-	48067	1 mL

Method 602

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 602 Purgeable Aromatics Mix	2000 µg/mL each component in methanol	-	46965	1 mL
	Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene Ethylbenzene Toluene		
EPA 602 Purgeable Aromatics Mix	200 µg/mL each component in methanol	-	48740	1 mL
	Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene	1,4-Dichlorobenzene Ethylbenzene Toluene		
standard type internal/surrogate				
α,α-Trifluorotoluene solution	2000 µg/mL in methanol	-	48389	1 mL

Method 603

Description	Concentration		Cat. No.	Qty
standard type calibration				
Acrolein	-	SS	458501 48501	100 mg 5 g
Acrylonitrile	-	SS	48502	1 g
Acrolein/Acrylonitrile Mix	2000 µg/mL each component in H ₂ O	SS	456870-U 46870-U	1 mL 1 mL
	Acrolein	Acrylonitrile		
Acrolein/Acrylonitrile Mix	10,000 µg/mL in deionized water	-	46871-U	1 mL
	Acrolein	Acrylonitrile		


Method 604

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA Phenols Mixture	in methanol (varied)	SS	458859 48859	1 mL 1 mL
	4-Chloro-3-methylphenol, 2500 µg/mL 2-Chlorophenol, 500 µg/mL 2,4-Dichlorophenol, 500 µg/mL 2,4-Dimethylphenol, 500 µg/mL 2,4-Dinitrophenol, 1500 µg/mL 2-Methyl-4,6-dinitrophenol, 2500 µg/mL	2-Nitrophenol, 500 µg/mL 4-Nitrophenol, 2500 µg/mL Pentachlorophenol, 2500 µg/mL Phenol, 500 µg/mL 2,4,6-Trichlorophenol, 1500 µg/mL		


Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 605

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA TCL Benzidines Mix	2000 µg/mL each component in methanol	 48906 458906	1 mL 1 mL
	<i>Benzidine</i> <i>3,3'-Dichlorobenzidine</i>		

Method 606

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Phthalate Esters Mix	2000 µg/mL each component in methanol	- 48805-U	1 mL
	<i>Bis(2-ethylhexyl) phthalate</i> <i>Di-n-octyl phthalate</i> <i>Benzyl butyl phthalate</i> <i>Diethyl phthalate</i> <i>Dibutyl phthalate</i> <i>Dimethyl phthalate</i>		
EPA Phthalate Esters Mix	2000 µg/mL each component in hexane	 48231 458231	1 mL 1 mL
	<i>Bis(2-ethylhexyl) phthalate</i> <i>Di-n-octyl phthalate</i> <i>Benzyl butyl phthalate</i> <i>Diethyl phthalate</i> <i>Dibutyl phthalate</i> <i>Dimethyl phthalate</i>		
EPA 606-M Phthalate Esters Mix	200 µg/mL each component in methanol	- 48741	1 mL
	<i>Benzyl butyl phthalate</i> <i>Diethyl phthalate</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>Dimethyl phthalate</i> <i>Dibutyl phthalate</i> <i>Di-n-octyl phthalate</i>		

Method 607

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 607 Nitrosamines Mix	2000 µg/mL each component in methanol	48240-U	1 mL
	<i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>N-Nitrosodiphenylamine</i>		

Method 608, 608.1, 608.2

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 608 Pesticides Mix	20 µg/mL each component in hexane: toluene (1:1)	47915-U	1 mL
	<i>Aldrin</i> <i>α-Endosulfan</i> <i>α-1,2,3,4,5,6-Hexachlorocyclohexane</i> <i>β-Endosulfan</i> <i>β-BHC</i> <i>Endosulfan sulfate</i> <i>Lindane</i> <i>Endrin</i> <i>δ-BHC</i> <i>Endrin aldehyde</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane</i> <i>Heptachlor</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene</i> <i>Heptachlor exo-epoxide</i> <i>4,4'-DDT</i> <i>Benzene, 200 mg/L</i> <i>Dieldrin</i>		
EPA Pesticide Mix	in methanol: methylene chloride (98:2) (varied)	48858-U	1 mL
	<i>Aldrin, 10 µg/mL</i> <i>Dieldrin, 20 µg/mL</i> <i>α-BHC</i> <i>α-Endosulfan, 20 µg/mL</i> <i>β-BHC</i> <i>β-Endosulfan, 20 µg/mL</i> <i>Lindane, 10 µg/mL</i> <i>Endosulfan sulfate, 60 µg/mL</i> <i>δ-BHC</i> <i>Endrin, 20 µg/mL</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane,</i> <i>Endrin aldehyde, 60 µg/mL</i> <i>60 µg/mL</i> <i>Heptachlor, 10 µg/mL</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene,</i> <i>Heptachlor exo-epoxide, 10 µg/mL</i> <i>20 µg/mL</i> <i>4,4'-DDT, 60 µg/mL</i>		
Chlordane (mixture of isomers)	5000 µg/mL in methanol	40089	1 mL
Toxaphene solution	5000 µg/mL in methanol	40111	1 mL
Aroclor Mix 1	200 µg/mL each component in methanol	48861	1 mL
	<i>Aroclor 1016</i> <i>Aroclor 1248</i> <i>Aroclor 1232</i> <i>Aroclor 1260</i>		
Aroclor Mix 2	200 µg/mL each component in methanol	48862	1 mL
	<i>Aroclor 1221</i> <i>Aroclor 1254</i> <i>Aroclor 1242</i>		


Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 608, 608.1, 608.2 (continued)

Description	Concentration		Cat. No.	Qty
EPA 608.1 Calibration Solution	1000 µg/mL in isooctane Chlorobenzilate Chloroneb Chloropropylate 1,2-Dibromo-3-chloropropane	Etridiazole Pentachloronitrobenzene Propachlor	40351-U	1 mL
EPA 608.2 Calibration Solution	100 µg/mL each component in hexane Chlorothalonil Dacthal Dicloran	Methoxychlor Permethrin isomers	40352-U	1 mL

Method 610

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 610 Polynuclear Aromatic Hydrocarbons Mixture	in methanol: methylene chloride (1:1) Acenaphthene, 1000 µg/mL Acenaphthylene, 2000 µg/mL Anthracene, 100 µg/mL Benz[a]anthracene, 100 µg/mL Benzo[b]fluoranthene, 200 µg/mL Benzo[k]fluoranthene, 100 µg/mL Benzo[ghi]perylene, 200 µg/mL Benzo[a]pyrene, 100 µg/mL	Chrysene, 100 µg/mL Dibenz[a,h]anthracene, 200 µg/mL Fluoranthene, 200 µg/mL Fluorene, 200 µg/mL Indeno[1,2,3-cd]pyrene, 100 µg/mL Naphthalene, 1000 µg/mL Phenanthrene, 100 µg/mL Pyrene, 100 µg/mL	 48743 48743	1 mL 1 mL
EPA 610-N PAH Kit	- Acenaphthylene, .1 g Anthracene, 5 g Benzo[a]anthracene, .1 g Benzo[a]pyrene, .1 g Benzo[b]fluoranthene, .05 g Benzo[ghi]perylene, .025 g Benzo[k]fluoranthene, .05 g Chrysene(93%), .1 g	Dibenzo[a,h]anthracene, .1 g Fluoranthene, 5 g Fluorene, 5 g Indeno[1,2,3-cd]pyrene, .01 g Naphthalene, 5 g Phenanthrene, 5 g Pyrene, 5 g Acenaphthene, 5 g	- 47351	1 kit
EPA 610-S PAH Kit	in methanol (except where noted) Acenaphthene solution (Supelco 48643) Acenaphthylene solution (Supelco 48630-U) Anthracene solution (Supelco 48647) Benz[a]anthracene solution (Supelco 48651) Benzo[a]pyrene solution (Supelco 48665) Benzo[b]fluoranthene solution (Supelco 48637) Benzo[ghi]perylene solution (Supelco 48667) Benzo[k]fluoranthene solution (Supelco 48668) Chrysene solution (Supelco 48650)	Dibenzo[a,h]anthracene solution (Supelco 48652) Fluoranthene solution (Supelco 48662) Fluorene solution (Supelco 48644) Indeno[1,2,3-cd]pyrene solution (Supelco 48669) Naphthalene solution (Supelco 48641) Phenanthrene solution (Supelco 48661) Pyrene (Supelco 48649) EPA 610 Polynuclear Aromatic Hydrocarbons Mixture (Supelco 48743), 1 mL	- 48755-U	1 kit

Method 611

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA Haloethers Mix	2000 µg/mL each component in hexane Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether 4-Bromodiphenyl ether	4-Chlorodiphenyl ether Bis-(2-chloroisopropyl) ether	48228-U	1 mL


Method 613

Description	Concentration		Cat. No.	Qty
standard type calibration				
2,3,7,8-Tetrachlorodibenzo-p-dioxin solution	10 µg/mL in toluene		48599	1 mL

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 624

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 624 Calibration Mix 1	100 µg/mL each component in methanol		- 47506	1 mL
	Benzene	1,1-Dichloroethylene		
	Bromodichloromethane	trans-1,2-Dichloroethylene		
	Bromoform	Dichloromethane		
	Bromomethane	1,2-Dichloropropane		
	Carbon tetrachloride	cis-1,3-Dichloropropene		
	Chlorobenzene	trans-1,3-Dichloropropene		
	Chloroethane	Ethylbenzene		
	Chloroform	1,1,2,2-Tetrachloroethane		
	Chloromethane	Tetrachloroethylene		
	Dibromochloromethane	Toluene		
	1,2-Dichlorobenzene	1,1,1-Trichloroethane		
	1,3-Dichlorobenzene	1,1,2-Trichloroethane		
	1,4-Dichlorobenzene	Trichloroethylene		
	1,1-Dichloroethane	Trichlorofluoromethane		
	1,2-Dichloroethane	Vinyl chloride		
2-Chloroethyl vinyl ether solution	5000 µg/mL in methanol		- 40017	1 mL
2-Chloroethyl vinyl ether solution	200 µg/mL in methanol		- 48672	1 mL
EPA Purgeable Halocarbon Calibration Kit	-		- 47439-U	2 × 1 mL
	EPA 624 Calibration Mix (47056), 1 mL	2-Chloroethyl vinyl ether (40017), 1 mL		
EPA 624 Calibration Mix 1	2000 µg/mL each component in methanol (varied)		 8561311 861311	1 mL 1 mL
	Benzene	2,2-Dichloropropane		
	Bromobenzene	1,1-Dichloro-1-propene		
	Bromodichloromethane	cis-1,3-Dichloropropene		
	Bromoform	trans-1,3-Dichloropropene		
	Butylbenzene	Ethylbenzene		
	sec-Butylbenzene	Hexachloro-1,3-butadiene		
	tert-Butylbenzene	Isopropylbenzene		
	Carbon tetrachloride	p-Isopropyltoluene		
	Chlorobenzene	Naphthalene		
	Chloroform	Propylbenzene		
	2-Chlorotoluene	Styrene		
	4-Chlorotoluene	1,1,1,2-Tetrachloroethane		
	Dibromochloromethane	1,1,2,2-Tetrachloroethane		
	1,2-Dibromo-3-chloropropane	Tetrachloroethylene		
	1,2-Dibromoethane	Toluene		
	Dibromomethane	1,2,3-Trichlorobenzene		
	1,2-Dichlorobenzene	1,2,4-Trichlorobenzene		
	1,3-Dichlorobenzene	1,1,1-Trichloroethane		
	1,4-Dichlorobenzene	1,1,2-Trichloroethane		
	1,1-Dichloroethane	Trichloroethylene		
	1,2-Dichloroethane	1,2,3-Trichloropropane		
	1,1-Dichloroethylene	1,2,4-Trimethylbenzene		
	cis-1,2-Dichloroethylene	1,3,5-Trimethylbenzene		
	trans-1,2-Dichloroethylene	o-Xylene		
	Dichloromethane	m-Xylene		
	1,2-Dichloropropane	p-Xylene		
	1,3-Dichloropropane			
EPA 624 Purgeable Calibration Mix w/o Gases, includes 2-CEVE	2000 µg/mL each component in methanol		- 47432-U	1 mL
	Benzene	1,1-Dichloroethylene		
	Bromodichloromethane	trans-1,2-Dichloroethylene		
	Bromoform	Dichloromethane		
	Carbon tetrachloride	1,2-Dichloropropane		
	Chlorobenzene	cis-1,3-Dichloropropene		
	2-Chloroethyl vinyl ether	trans-1,3-Dichloropropene		
	Chloroform	Ethylbenzene		
	Dibromochloromethane	1,1,2,2-Tetrachloroethane		
	1,2-Dichlorobenzene	Tetrachloroethylene		
	1,3-Dichlorobenzene	Toluene		
	1,4-Dichlorobenzene	1,1,1-Trichloroethane		
	1,1-Dichloroethane	1,1,2-Trichloroethane		
	1,2-Dichloroethane	Trichloroethylene		
EPA Purgeable A	200 µg/mL each component in methanol		- 47969	1 mL
	Carbon tetrachloride	1,1-Dichloroethylene		
	Chlorobenzene	Dichloromethane		
	2-Chloroethyl vinyl ether	1,2-Dichloropropane		
	Chloroform	Tetrachloroethylene		
	Dibromochloromethane	1,1,2-Trichloroethane		
	1,2-Dichlorobenzene	Trichloroethylene		
	1,1-Dichloroethane	Trichlorofluoromethane		

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods


Method 624 (continued)

Description	Concentration		Cat. No.	Qty
EPA HC Purgeable B	200 µg/mL each component in methanol <i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,2-Dichloroethane</i> <i>trans-1,2-Dichloroethylene</i>	<i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Toluene</i> <i>1,1,1-Trichloroethane</i>	- 47970-U	1 mL
EPA HC Purgeable C	200 µg/mL each component in methanol <i>Bromomethane</i> <i>Chloroethane</i>	<i>Chloromethane</i> <i>Vinyl chloride</i>	- 48853	1 mL
EPA 624 Calibration Mix A (w/o gases)	2000 µg/mL in methanol <i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i>	<i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i>	- 46966	1 mL
EPA 624 Calibration Mix B	2000 µg/mL each component in methanol <i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>	- 46967-U	1 mL
EPA 624 Purgeables Kit	- <i>EPA Purgeable A (Supelco 48059), 1mL</i> <i>EPA HC Purgeable B (Supelco 48058), 1mL</i>	<i>EPA HC Purgeable C (Supelco 48057-U), 1mL</i>	- 47371	1 kit
EPA Purgeable A	200 µg/mL each component in methanol <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>2-Chloroethyl vinyl ether</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>1,1-Dichloroethane</i> <i>1,1-Dichloroethylene</i>	<i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>Tetrachloroethylene</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>Trichlorofluoromethane</i>	SS 48851-U 458851	1 mL 1 mL
EPA Purgeable B	200 µg/mL each component in methanol <i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>1,2-Dichloroethane</i> <i>trans-1,2-Dichloroethylene</i> <i>cis-1,3-Dichloropropene</i>	<i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Toluene</i> <i>1,1,1-Trichloroethane</i>	SS 458852 48852-U	1 mL 1 mL
standard type internal				
EPA Purgeable Internal Standard Mix	20,000 µg/mL each component in methanol <i>Bromochloromethane</i> <i>2-Bromo-1-chloropropane</i>	<i>1,4-Dichlorobutane</i>	- 48864	1 mL
Fluorobenzene solution	2000 µg/mL in methanol		- 48943	1 mL
standard type surrogate				
Benzene-d ₆ solution	2000 µg/mL in methanol		- 48940-U	1 mL
1,2-Dichloroethane-d ₄ solution	2000 µg/mL in methanol		- 48941	1 mL
1,4-Difluorobenzene solution	2000 µg/mL in methanol		- 48944	1 mL
Pentafluorobenzene solution	2000 µg/mL in methanol		- 48945	1 mL
1-Bromo-4-fluorobenzene solution	2000 µg/mL in methanol		- 48083	1 mL
standard type tuning solution				
1-Bromo-4-fluorobenzene solution	25,000 µg/mL in methanol		- 48800	1 mL

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 625

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 625 Semivolatile Calibration Mix	1000 µg/mL each component in methylene chloride: benzene (3:1)	-	506559	1 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Azobenzene</i> <i>Benzo[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i> <i>4-Chloro-3-methylphenol</i> <i>2-Chloronaphthalene</i> <i>2-Chlorophenol</i> <i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>2,4-Dichlorophenol</i> <i>Diethyl phthalate</i>	<i>2,4-Dimethylphenol</i> <i>Dimethyl phthalate</i> <i>2,4-Dinitrophenol</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>2-Methyl-4,6-dinitrophenol</i> <i>Naphthalene</i> <i>Nitrobenzene</i> <i>2-Nitrophenol</i> <i>4-Nitrophenol</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Pentachlorophenol</i> <i>Phenanthrene</i> <i>Phenol</i> <i>Pyrene</i> <i>1,2,4-Trichlorobenzene</i> <i>2,4,6-Trichlorophenol</i>		
EPA TCL Benzidines Mix	2000 µg/mL each component in methanol		48906 458906	1 mL 1 mL
	<i>Benzidine</i>	<i>3,3'-Dichlorobenzidine</i>		
N-Nitrosodiphenylamine solution	5000 µg/mL in methanol	-	40060	1 mL
EPA 625 Semivolatile Calibration Kit	-	-	47444-U	3 × 1 ea
	<i>625 Semivolatile Calibration Mix (506559), 1 mL</i>	<i>N-Nitrosodiphenylamine solution (40060), 1 mL</i>		
	<i>TCL Benzidines Mix (48906), 1 mL</i>			
EPA 625 Add-On Mix 1	2000 µg/mL each component in methylene chloride	-	46828-U	1 mL
	<i>Acetophenone</i> <i>Aniline</i> <i>Benzoic acid</i> <i>Carbazole</i> <i>Decane</i> <i>2,3-Dichloroaniline</i> <i>Docosane</i> <i>Dodecane</i> <i>Eicosane</i>	<i>Hexadecane</i> <i>o-Cresol</i> <i>1-Methylphenanthrene</i> <i>p-Cresol</i> <i>Octadecane</i> <i>Pyridine</i> <i>(+)-α-Terpineol</i> <i>Tetradecane</i>		
EPA 8270/625/CLP/Appendix IX Semivolatile Calibration Mix	1000 µg/mL each component in methylene chloride: benzene (3:1)	-	502049	1 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Azobenzene</i> <i>Benzo[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i> <i>2-Chloronaphthalene</i> <i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i>	<i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>Naphthalene</i> <i>Nitrobenzene</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Phenanthrene</i> <i>Pyrene</i> <i>1,2,4-Trichlorobenzene</i>		
EPA 625/CLP Pesticide Mix	2000 µg/mL each component in hexane: toluene (1:1)	-	47914	1 mL
	<i>Aldrin</i> <i>α-BHC</i> <i>β-BHC</i> <i>Lindane</i> <i>δ-BHC</i> <i>4,4' -DDD</i> <i>4,4' -DDE</i> <i>4,4' -DDT</i>	<i>Dieldrin</i> <i>α-Endosulfan</i> <i>β-Endosulfan</i> <i>Endosulfan sulfate</i> <i>Endrin</i> <i>Endrin aldehyde</i> <i>Heptachlor</i> <i>Heptachlor exo-epoxide</i>		

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Method 625 (continued)

Description	Concentration		Cat. No.	Qty	
EPA Pesticide Mix	in methanol: methylene chloride (98:2) (varied) <i>Aldrin</i> , 10 µg/mL <i>α-BHC</i> <i>β-BHC</i> <i>Lindane</i> , 10 µg/mL <i>δ-BHC</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane</i> , 60 µg/mL <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene</i> , 20 µg/mL <i>4,4'-DDT</i> , 60 µg/mL	<i>Dieldrin</i> , 20 µg/mL <i>α-Endosulfan</i> , 20 µg/mL <i>β-Endosulfan</i> , 20 µg/mL <i>Endosulfan sulfate</i> , 60 µg/mL <i>Endrin</i> , 20 µg/mL <i>Endrin aldehyde</i> , 60 µg/mL <i>Heptachlor</i> , 10 µg/mL <i>Heptachlor exo-epoxide</i> , 10 µg/mL	-	48858-U	1 mL
EPA Phenols Mixture	in methanol (varied) <i>4-Chloro-3-methylphenol</i> , 2500 µg/mL <i>2-Chlorophenol</i> , 500 µg/mL <i>2,4-Dichlorophenol</i> , 500 µg/mL <i>2,4-Dimethylphenol</i> , 500 µg/mL <i>2,4-Dinitrophenol</i> , 1500 µg/mL <i>2-Methyl-4,6-dinitrophenol</i> , 2500 µg/mL	<i>2-Nitrophenol</i> , 500 µg/mL <i>4-Nitrophenol</i> , 2500 µg/mL <i>Pentachlorophenol</i> , 2500 µg/mL <i>Phenol</i> , 500 µg/mL <i>2,4,6-Trichlorophenol</i> , 1500 µg/mL	SE 458859 48859	1 mL 1 mL	
EPA 625 Phenol Mix	in methylene chloride (varied) <i>4-Chloro-3-methylphenol</i> , 2500 µg/mL <i>2-Chlorophenol</i> , 500 µg/mL <i>2,4-Dichlorophenol</i> , 500 µg/mL <i>2,4-Dimethylphenol</i> , 500 µg/mL <i>2,4-Dinitrophenol</i> , 2500 µg/mL <i>2-Methyl-4,6-dinitrophenol</i> , 2500 µg/mL	<i>2-Nitrophenol</i> , 500 µg/mL <i>4-Nitrophenol</i> , 2500 µg/mL <i>Pentachlorophenol</i> , 2500 µg/mL <i>Phenol</i> , 500 µg/mL <i>2,4,6-Trichlorophenol</i> , 1500 µg/mL	-	48866	1 mL
EPA 625 Base-Neutral 1	200 µg/mL each component in methylene chloride <i>Acenaphthylene</i> <i>Benzo[b]fluoranthene</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i>	<i>Dibutyl phthalate</i> <i>1,4-Dichlorobenzene</i> <i>3,3'-Dichlorobenzidine</i> <i>Dimethyl phthalate</i> <i>2,6-Dinitrotoluene</i> <i>Nitrobenzene</i>	-	48831	1 mL
EPA 625 Base Neutral 2	200 µg/mL each component in methylene chloride <i>Acenaphthene</i> <i>Anthracene</i> <i>Benzo[a]anthracene</i> <i>Bis(2-chloroethoxy)methane</i> <i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i>	<i>Diethyl phthalate</i> <i>2,4-Dinitrotoluene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Naphthalene</i> <i>Pyrene</i>	-	48832	1 mL
EPA 625 Base/Neutral 3	200 µg/mL each component in methylene chloride <i>Azobenzene</i> <i>Benzyl butyl phthalate</i> <i>2-Chloronaphthalene</i> <i>Fluoranthene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i>	<i>Isophorone</i> <i>N-Nitrosodiphenylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Phenanthrene</i> <i>1,2,4-Trichlorobenzene</i>	-	48833	1 mL
EPA 625 Base Neutral 4	200 µg/mL each component in methylene chloride <i>Benidine</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i>	<i>4-Chlorodiphenyl ether</i> <i>Di-n-octyl phthalate</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>N-Nitrosodimethylamine</i>	-	48834	1 mL
Chlordane (mixture of isomers)	5000 µg/mL in methanol		-	40089	1 mL
Toxaphene solution	5000 µg/mL in methanol		-	40111	1 mL
Aroclor Mix 1	200 µg/mL each component in methanol <i>Aroclor 1016</i> <i>Aroclor 1232</i>	<i>Aroclor 1248</i> <i>Aroclor 1260</i>	-	48861	1 mL
Aroclor Mix 2	200 µg/mL each component in methanol <i>Aroclor 1221</i> <i>Aroclor 1242</i>	<i>Aroclor 1254</i>	-	48862	1 mL

Environmental Standards

Wastewater Methods: Clean Water Act (CWA) - 600 Series Methods

Description	Concentration	Cat. No.	Qty
standard type internal/surrogate			
2-Fluorophenol solution	2000 µg/mL in methylene chloride	- 48719-U	1 mL
Pentafluorophenol solution	2000 µg/mL in methylene chloride	- 48718	1 mL
Phenol-d ₆	2000 µg/mL in methylene chloride	- 48716-U	1 mL
Aniline-2,3,4,5,6-d ₅ solution	2000 µg/mL in methylene chloride	- 48788	1 mL
Anthracene-d ₁₀ solution	2000 µg/mL in methylene chloride	- 48863	1 mL
Benz[<i>a</i>]anthracene-d ₁₂ solution	2000 µg/mL in methylene chloride	- 48789	1 mL
Decafluorobiphenyl solution	2000 µg/mL in methylene chloride	- 48792	1 mL
4,4'-Dibromobiphenyl solution	2000 µg/mL in methylene chloride	- 48790-U	1 mL
4,4'-Dibromooctafluorobiphenyl solution	2000 µg/mL in methylene chloride	- 48791	1 mL
2,2'-Difluorobiphenyl solution	2000 µg/mL in methylene chloride	- 48787	1 mL
1-Fluoronaphthalene solution	2000 µg/mL in methylene chloride	- 48720-U	1 mL
2-Fluoronaphthalene solution	2000 µg/mL in methylene chloride	- 48721-U	1 mL
Naphthalene-d ₈ solution	2000 µg/mL in methylene chloride	- 48715-U	1 mL
Nitrobenzene-d ₅ solution	2000 µg/mL in methylene chloride	- 48717-U	1 mL
Phenanthrene-d ₁₀ solution	2000 µg/mL in methylene chloride	- 48710-U	1 mL
Pyridine-d ₅ solution	2000 µg/mL in methylene chloride	- 48714-U	1 mL
standard type surrogate			
EPA 625/8270C SV Surrogate Spike Mix with Indicator	in methanol (varied)	- 44671-U	25 mL
	2-Fluorobiphenyl, 100 µg/mL 2-Fluorophenol, 200 µg/mL Nitrobenzene-d ₅ , 100 µg/mL	Phenol-d ₅ , 200 µg/mL p-Terphenyl-d ₁₄ , 100 µg/mL 2,4,6-Tribromophenol	
standard type tuning solution			
Benzidine-DFTPP Standard	in methylene chloride (varied) Benzidine, 500 µg/mL	- 48727	1 mL
		Decafluorotriphenylphosphine, 250 µg/mL	
Pentachlorophenol-DFTPP	250 µg/mL each component in methylene chloride	- 48728	1 mL
Decafluorotriphenylphosphine solution	25,000 µg/mL in methylene chloride	- 48724-U	1 mL
Perfluorotributylamine (PFTBA)	-	- 442747-U	1000 mg

Method 627

CAS No.	Compound	Cat. No.	Qty
1582-09-8	Trifluralin, analytical standard	442824	250 mg

Method 629

Description	Concentration	Cat. No.	Qty
standard type calibration			
Cyanazine solution	2000 µg/mL in methanol	48592	1 mL

Method 631

Description	Concentration	Cat. No.	Qty
Benomyl	-	PS222	100 mg

Environmental Standards

Solid Waste, Groundwater Methods

Solid Waste, Groundwater Methods

US EPA 8000 Series (or SW-846) methods are analytical methods for identifying and quantifying organic compounds on the EPA's Appendix VIII and Appendix IX lists in solid wastes and groundwater at active hazardous treatment, storage, and disposal sites. Most of these methods call for gas chromatography with a selective detector or for gas chromatography/mass spectrometry; two methods call for high performance liquid chromatography. An additional method, Toxicity Characteristic Leaching Procedure (TCLP) Method 1311, is used to estimate the toxicity of solid waste materials under the leaching conditions in a landfill. Materials designated as "toxic" based on results of Method 1311 cannot be disposed of in conventional landfills.

Compound Classification	U.S. EPA Method No.
Acrylonitrile	8031
Chlorinated Herbicides	8150, 8151, 8151A
Chlorinated Hydrocarbons	8121
Chlorinated Pesticides	8081
1,2-Dibromoethane, 1,2-Dibromo-3-chloropropane	8011
Haloethers	8111
Halogenated and Aromatic Volatile Organics	8010, 8020, 8021
Nitroaromatics and Cyclic Ketones	8090
Nitroaromatics and Nitramines by HPLC	8330
Nitrosamines by GC	8070
Nonhalogenated Volatile Organics	8015
Phenols	8040
Phthalate Esters	8061
Polynuclear Aromatic Hydrocarbons	8100, 8310
Semivolatile Organic Compounds	8270
Toxicity Characteristic Leaching Procedure (TCLP)	1311
Volatile Organic Compounds (VOC)	8240, 8260
Acetonitrile	8033
PCB's	8082

Resource Conservation and Recovery Act (RCRA) - 8000 Series Methods

Method 1311

These analytical reference standards are specifically designed for monitoring organic chemicals (acids, base-neutrals, pesticides, herbicides, volatile compounds) listed in US Environmental Protection Agency Solid Waste Method 1131, "Toxicity Characteristic Leaching Procedure".

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA TCLP Acids Mix	1000 µg/mL each component in methanol <i>o</i> -Cresol <i>m</i> -Cresol <i>p</i> -Cresol	48142	1 mL
	<i>Pentachlorophenol</i> <i>2,4,5-Trichlorophenol</i> <i>2,4,6-Trichlorophenol</i>		
EPA 1311 Base-Neutrals Mix	1000 µg/mL each component in acetone <i>2,4-Dinitrotoluene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i>	48947	1 mL
	<i>Hexachloroethane</i> <i>Nitrobenzene</i> <i>Pyridine</i>		
EPA TCLP Base Neutral Dichlorobenzene	1000 µg/mL each component in acetone <i>1,4-Dichlorobenzene</i> <i>2,4-Dinitrotoluene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i>	47989-U	1 mL
	<i>Hexachloroethane</i> <i>Nitrobenzene</i> <i>Pyridine</i>		
EPA TCLP Volatiles Mix	in methanol (varied) <i>Benzene, 1000 µg/mL</i> <i>2-Butanone, 5000 µg/mL</i> <i>Carbon tetrachloride, 1000 µg/mL</i> <i>Chlorobenzene, 1000 µg/mL</i> <i>Chloroform, 1000 µg/mL</i> <i>1,4-Dichlorobenzene, 1000 µg/mL</i>	48143	1 mL
	<i>1,2-Dichloroethane, 1000 µg/mL</i> <i>1,1-Dichloroethylene, 1000 µg/mL</i> <i>Tetrachloroethylene, 1000 µg/mL</i> <i>Trichloroethylene, 1000 µg/mL</i> <i>Vinyl chloride, 1000 µg/mL</i>		
EPA TCLP Herbicides Mix	1000 µg/mL each component in acetonitrile <i>2,4-D methyl ester</i>	48141	1 mL
	<i>Silvex® methyl ester</i>		
EPA TCLP Pesticides Mix	1000 µg/mL each component in methanol <i>Endrin</i> <i>Heptachlor</i> <i>Heptachlor exo-epoxide</i>	48139	1 mL
	<i>Lindane</i> <i>Methoxychlor</i>		
EPA TCLP Pesticide Mix	in methanol (varied) <i>Endrin, 25 µg/mL</i> <i>Heptachlor, 50 µg/mL</i> <i>Heptachlor exo-epoxide, 75 µg/mL</i>	861349	1 mL
	<i>Lindane, 50 µg/mL</i> <i>Methoxychlor, 200 µg/mL</i>		

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Description	Concentration	Cat. No.	Qty
2,4-D solution	100 µg/mL in methanol	47896	1 mL
2,4,5-TP (Silvex®) solution	100 µg/mL in methanol	47897	1 mL
Chlordane (mixture of isomers)	5000 µg/mL in methanol	40089	1 mL
Toxaphene solution	5000 µg/mL in methanol	40111	1 mL

Method 8010 (Replaced with Method 8021)

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 8010 Halogenated VOC Mix 1	2000 µg/mL each component in methanol	48224	1 mL
	<i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromomethane</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,2-Dichloropropane</i>	<i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i>	
EPA 8010 Halogenated VOC Mix 2	2000 µg/mL each component in methanol	48395	1 mL
	<i>Bromobenzene</i> <i>Bromodichloromethane</i> <i>Chlorobenzene</i> <i>Dibromochloromethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i>	<i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i>	
EPA VOC Mix 5	2000 µg/mL each component in methanol	458797 48797	1 mL 1 mL
	<i>Bromodichloromethane</i> <i>Dibromochloromethane</i> <i>1,1-Dichloroethylene</i>	<i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i> <i>Dichloromethane</i>	
EPA VOC Mix 6	2000 µg/mL each component in methanol	458799 48799-U	1.5 mL 1.5 mL
	<i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Dichlorodifluoromethane</i> <i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>	
EPA 8011 EDB/DBCP Mix	2000 µg/L each component in methanol	48225-U	1 mL
	<i>1,2-Dibromo-3-chloropropane</i>	<i>1,2-Dibromoethane</i>	
standard type surrogate			
Bromochloromethane solution	2000 µg/mL in methanol	48067	1 mL
1-Bromo-4-fluorobenzene solution	2000 µg/mL in methanol	48083	1 mL
1-Bromo-2-chlorobenzene solution	750 µg/mL in methanol	47487	1 mL

Method 8011

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 8011 EDB/DBCP Mix	2000 µg/L each component in methanol	48225-U	1 mL
	<i>1,2-Dibromo-3-chloropropane</i>	<i>1,2-Dibromoethane</i>	

Method 8020 (Replaced by Method 8021)

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 8020B Aromatic Volatile Organics Mix 1	2000 µg/mL each component in methanol	48226-U	1 mL
	<i>Benzene</i> <i>Chlorobenzene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i>	<i>Ethylbenzene</i> <i>Toluene</i> <i>o-Xylene</i> <i>m-Xylene</i>	
EPA 8020/8240 Aromatic Volatiles Mix	100 µg/mL each component in methanol	47504	1 mL
	<i>Benzene</i> <i>Chlorobenzene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Ethylbenzene</i>	<i>Styrene</i> <i>Toluene</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	

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Method 8020 (Replaced by Method 8021) (continued)

Description	Concentration	Cat. No.	Qty
Styrene solution	5000 µg/mL in methanol	40257-U	1 mL
<i>p</i> -Xylene solution	5000 µg/mL in methanol	40203	1 mL
standard type internal			
Fluorobenzene solution	2000 µg/mL in methanol	48943	1 mL
standard type internal/surrogate			
α,α,α-Trifluorotoluene solution	2000 µg/mL in methanol	48389	1 mL
standard type surrogate			
1-Bromo-2-chlorobenzene solution	750 µg/mL in methanol	47487	1 mL
1-Bromo-4-fluorobenzene solution	2000 µg/mL in methanol	48083	1 mL
1,4-Difluorobenzene solution	2000 µg/mL in methanol	48944	1 mL

Method 8021 (1987), 8021A (1990)

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA VOC Mix 1	2000 µg/mL each component in methanol	48775 4S8775	1 mL 1 mL
	<i>sec</i> -Butylbenzene <i>tert</i> -Butylbenzene Chlorobenzene 2-Chlorotoluene 4-Chlorotoluene 1,2-Dichlorobenzene	1,3-Dichlorobenzene 1,4-Dichlorobenzene Isopropylbenzene Propylbenzene <i>o</i> -Xylene <i>p</i> -Xylene	
EPA VOC Mix 2	2000 µg/mL each component in methanol	4S8777 48777	1 mL 1 mL
	Benzene Bromobenzene Butylbenzene Ethylbenzene <i>p</i> -Isopropyltoluene Naphthalene Styrene	Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene <i>m</i> -Xylene	
EPA VOC Mix 3	2000 µg/mL each component in methanol	4S8779 48779	1 mL 1 mL
	1,2-Dibromo-3-chloropropane 1,2-Dibromoethane 1,2-Dichloroethane 1,2-Dichloropropane 1,3-Dichloropropane 1,1-Dichloro-1-propene <i>cis</i> -1,3-Dichloropropene	<i>trans</i> -1,3-Dichloropropene Hexachloro-1,3-butadiene 1,1,1,2-Tetrachloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane Trichloroethylene 1,2,3-Trichloropropene	
EPA VOC Mix 4	2000 µg/mL each component in methanol	4S8786 48786	1 mL 1 mL
	Bromochloromethane Bromoform Carbon tetrachloride Chloroform Dibromomethane	1,1-Dichloroethane 2,2-Dichloropropane Tetrachloroethylene 1,1,1-Trichloroethane	
EPA VOC Mix 5	2000 µg/mL each component in methanol	4S8797 48797	1 mL 1 mL
	Bromodichloromethane Dibromochloromethane 1,1-Dichloroethylene	<i>cis</i> -1,2-Dichloroethylene <i>trans</i> -1,2-Dichloroethylene Dichloromethane	
EPA VOC Mix 6	2000 µg/mL each component in methanol	4S8799 48799-U	1.5 mL 1.5 mL
	Bromomethane Chloroethane Chloromethane	Dichlorodifluoromethane Trichlorofluoromethane Vinyl chloride	
EPA VOC Calibration Standards Kit	-	48804 4S8804	1 kit 1 kit
	EPA Volatile Organic Compounds Mix 1 (48775), 1 mL EPA Volatile Organic Compounds Mix 2 (48777), 1 mL EPA Volatile Organic Compounds Mix 3 (48779), 1 mL	EPA Volatile Organic Compounds Mix 4 (48786), 1 mL EPA Volatile Organic Compounds Mix 5 (48797), 1 mL EPA Volatile Organic Compounds Mix 6 (48799-U), 1.5 mL	
2-Chloroethyl vinyl ether solution	200 µg/mL in methanol	48672	1 mL
2-Chloroethyl vinyl ether solution	5000 µg/mL in methanol	40017	1 mL
standard type internal			
EPA 502 Internal Standard Mix	2000 µg/L each component in methanol	48950-U	1 mL
	2-Bromo-1-chloropropane	Fluorobenzene	

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Description	Concentration	Cat. No.	Qty
2-Bromo-1-chloropropane solution	20,000 µg/mL in methanol	48713	1 mL
1,4-Dichlorobutane solution	2000 µg/mL in methanol	48066	1 mL
standard type surrogate			
Bromochloromethane solution	2000 µg/mL in methanol	48067	1 mL
1-Bromo-2-chlorobenzene solution	750 µg/mL in methanol	47487	1 mL

Method 8031C₃H₃N FW 53.06

Description	Concentration	Cat. No.	Qty
standard type calibration			
Acrylonitrile	-	48502	1 g
Acrylonitrile solution	1000 µg/mL in H ₂ O	48709	1 mL
Acrylonitrile solution	5000 µg/mL in methanol	40003	1 mL


Method 8033

Description	Concentration	Cat. No.	Qty
Acetonitrile	-	48484	1000 mg

Method 8040

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 8040A Phenol Calibration Mix	500 µg/mL each component in isopropanol	47899	1 mL
	4-Chloro-3-methylphenol 2-Chlorophenol m-Cresol p-Cresol 2,4-Dichlorophenol 2,6-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol Dinoseb 2-Methyl-4,6-dinitrophenol o-Cresol 2-Nitrophenol	4-Nitrophenol Pentachlorophenol Phenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol 2,3,5,6-Tetrachlorophenol 2,3,4-Trichlorophenol 2,3,5-Trichlorophenol 2,3,6-Trichlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 3,4,5-Trichlorophenol	
EPA 8040A Phenols Mix	2000 µg/mL each component in isopropanol	48235-U	1 mL
	4-Chloro-3-methylphenol m-Cresol 2,4-Dichlorophenol 2-Methyl-4,6-dinitrophenol 2-Nitrophenol	4-Nitrophenol Pentachlorophenol Phenol 2,4,6-Trichlorophenol	
EPA 8040B Phenols Mix	2000 µg/mL each component in isopropanol	48238	1 mL
	2-Chlorophenol p-Cresol 2,6-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol	Dinoseb o-Cresol 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	
standard type surrogate			
EPA 8040 Surrogate Standard Mix	2000 µg/mL each component in isopropanol	47951	1 mL
	2-Fluorophenol 2,4,6-Tribromophenol		

Method 8061

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Phthalate Esters Mix	2000 µg/mL each component in hexane	 48231 458231	1 mL 1 mL
	Bis(2-ethylhexyl) phthalate Benzyl butyl phthalate Dibutyl phthalate	Di-n-octyl phthalate Diethyl phthalate Dimethyl phthalate	
EPA Phthalate Esters Mix	2000 µg/mL each component in methanol	-	48805-U
	Bis(2-ethylhexyl) phthalate Benzyl butyl phthalate Dibutyl phthalate	Di-n-octyl phthalate Diethyl phthalate Dimethyl phthalate	1 mL


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Method 8070

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 607 Nitrosamines Mix	2000 µg/mL each component in methanol <i>N</i> -Nitrosodimethylamine <i>N</i> -Nitrosodiphenylamine	48240-U	1 mL

Method 8081

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 8080 Pesticides Mix	each component in hexane: toluene (1:1) (varied) <i>α</i> -BHC, 250 µg/mL <i>β</i> -BHC, 250 µg/mL Lindane, 250 µg/mL <i>δ</i> -BHC, 250 µg/mL Aldrin, 250 µg/mL 6-Hydroxy-2-naphthyl disulfide, 250 µg/mL 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane, 250 µg/mL 4,4'-DDT, 250 µg/mL Dieldrin, 250 µg/mL	- 47913	1 mL
EPA 8081 Pesticide Standard Mix	200 µg/mL each component in hexane: toluene (1:1) Aldrin <i>α</i> -BHC <i>β</i> -BHC Lindane <i>δ</i> -BHC <i>α</i> -Chlordane <i>γ</i> -Chlordane 4,4'-DDE 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane 4,4'-DDT Decachlorobiphenyl	- 46845-U	1 mL
EPA TCL Pesticides Mix	2000 µg/mL each component in hexane: toluene (1:1) Aldrin <i>α</i> -BHC <i>β</i> -BHC Lindane <i>δ</i> -BHC 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane 4,4'-DDE 4,4'-DDT Dieldrin	 458913 48913	1 mL 1 mL
<i>α</i> -Chlordane solution	100 µg/mL in hexane	- 48192	1 mL
<i>γ</i> -Chlordane solution	100 µg/mL in hexane	- 48193	1 mL
Toxaphene solution	200 µg/mL in isooctane	- 47616-U 49135-U	1 mL 10 mL
standard type internal			
Pentachloronitrobenzene solution	5000 µg/mL in methanol	- 40156	1 mL
standard type surrogate			
Pesticide Surrogate Spike Mix	200 µg/mL each component in acetone Decachlorobiphenyl	- 48460	1 mL
Decachlorobiphenyl solution	200 µg/mL in acetone	- 48318	1 mL
2,4,5,6-Tetrachloro- <i>m</i> -xylene solution	200 µg/mL in methanol	- 48317	1 mL
standard type degradation check mix			
DDT-Endrin Mix	500 µg/mL each component in methanol 4,4'-DDT	- 48282	1 mL

Method 8082

Description	Concentration	Cat. No.	Qty
standard type calibration			
Aroclor 1016 solution	200 µg/mL in methanol	- 48701	1 mL
Aroclor 1016 solution	1000 µg/mL in isooctane	 458097 48097	1 mL 1 mL
Aroclor 1221 solution	200 µg/mL in methanol	- 48705	1 mL
Aroclor 1221 solution	1000 µg/mL in isooctane	 458098 48098	1 mL 1 mL
Aroclor 1232 solution	200 µg/mL in methanol	- 48702	1 mL

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Description	Concentration		Cat. No.	Qty
Aroclor 1232 solution	1000 µg/mL in isooctane	SS	44805 454805	1 mL 1 mL
Aroclor 1242 solution	200 µg/mL in methanol	-	48706	1 mL
Aroclor 1242 solution	1000 µg/mL in isooctane	SS	44806 454806	1 mL 1 mL
Aroclor 1248 solution	200 µg/mL in methanol	-	48703	1 mL
Aroclor 1248 solution	1000 µg/mL in isooctane	SS	454807 44807	1 mL 1 mL
Aroclor 1254 solution	200 µg/mL in methanol	-	48707	1 mL
Aroclor 1254 solution	1000 µg/mL in isooctane	SS	454808 44808	1 mL 1 mL
Aroclor 1260 solution	200 µg/mL in methanol	-	48704	1 mL
Aroclor 1260 solution	1000 µg/mL in isooctane	SS	44809 454809	1 mL 1 mL
PCB Kit 3	200 µg/mL each component in methanol <i>Aroclor 1016 solution (Supelco 48701), 1 mL Aroclor 1221 solution (Supelco 48705), 1 mL Aroclor 1232 solution (Supelco 48702), 1 mL Aroclor 1242 solution (Supelco 48706), 1 mL</i>	-	48825	1 kit
PCB kit - high conc.	1000 µg/mL in isooctane (each solution) <i>Aroclor 1232 solution (Supelco 44805), 1 mL Aroclor 1242 solution (Supelco 44806), 1 mL Aroclor 1248 solution (Supelco 44807), 1 mL</i>	-	44803	1 kit
Aroclor Standard Mix 1	in acetone: methanol (2:3) (varied) <i>Aroclor 1016, 500 µg/mL Aroclor 1260, 500 µg/mL</i>	-	46846-U	1 mL
Aroclor Mix 2	200 µg/mL each component in methanol <i>Aroclor 1221 Aroclor 1242</i>	-	48862	1 mL
PCB No 1	-	-	35586-100MG	100 mg
PCB No 5	-	-	35588-100MG	100 mg
PCB No 31	-	-	36679-10MG-R	10 mg
PCB No 153	-	-	35602-10MG 35602-1G	10 mg 1 g
PCB No 153 solution	10 ng/µL in isooctane	-	36904-2ML	2 mL

Method 8090

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA Nitroaromatics/Cyclo Ketones Mix	2000 µg/mL each component in hexane: acetone (94:6) <i>1,3-Dinitrobenzene 2,4-Dinitrotoluene 2,6-Dinitrotoluene</i>		48227	1 mL
			<i>Isophorone 1,4-Naphthoquinone Nitrobenzene</i>	
standard type surrogate				
2-Fluorobiphenyl solution	2000 µg/mL in methylene chloride		48722-U	1 mL

Method 8100

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA TCL Polynuclear Aromatic Hydrocarbons Mix	2000 µg/mL each component in methylene chloride: benzene (1:1) <i>Acenaphthene Acenaphthylene Anthracene Benzo[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene</i>	SS	48905-U 458905	1 mL 1 mL
			<i>Chrysene Dibenz[a,h]anthracene Fluoranthene Fluorene Indeno[1,2,3-cd]pyrene Naphthalene Phenanthrene Pyrene</i>	

Environmental Standards

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Method 8100 (continued)

Description	Concentration	Cat. No.	Qty
EPA 8100 PAH Additional Components Mix	1000 µg/mL in methylene chloride	- 44694-U	1 mL
	<i>Dibenzo[a,e]pyrene Dibenzo[a,h]pyrene 3-Methylcholanthrene Dibenz[a,h]acridine</i>	<i>Benzo[<i>l</i>]fluoranthene Dibenz[<i>a,j</i>]acridine 7H Dibenzo[<i>c,g</i>]carbazole Dibenzo[<i>a,i</i>]pyrene</i>	
standard type internal/surrogate			
1-Fluoronaphthalene solution	2000 µg/mL in methylene chloride	- 48720-U	1 mL
standard type surrogate			
2-Fluorobiphenyl solution	2000 µg/mL in methylene chloride	- 48722-U	1 mL

Method 8111

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Haloethers Mix	2000 µg/mL each component in hexane	48228-U	1 mL
	<i>Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether 4-Bromodiphenyl ether</i>	<i>4-Chlorodiphenyl ether Bis-(2-chloroisopropyl) ether</i>	

Method 8121

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA Chlorinated Hydrocarbon Mix	2000 µg/mL each component in hexane	48229	1 mL
	<i>2-Chloronaphthalene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Hexachlorobenzene</i>	<i>Hexachloro-1,3-butadiene Hexachlorocyclopentadiene Hexachloroethane 1,2,4,5-Tetrachlorobenzene 1,2,4-Trichlorobenzene</i>	

Method 8150/8151/8151A

Description	Concentration	Cat. No.	Qty
standard type calibration			
Acid Herbicide Mix	in methanol (varied)	46861-U	1 mL
	<i>4-Amino-3,5,6-trichloropyridine-2-carboxylic acid, 100 µg/mL 4-Chloro-2-methylphenoxyacetic acid, 10000 µg/mL Dicamba, 10 µg/mL 2,4-Dichlorophenoxyacetic acid, 100 µg/mL 4-(2,4-Dichlorophenoxy)butyric acid, 100 µg/mL 2-(2,4-Dichlorophenoxy)propionic acid, 100 µg/mL</i>	<i>2,2-Dichloropropionic acid, 250 µg/mL Dinoseb, 50 µg/mL Mecoprop, 10000 µg/mL Pentachlorophenol, 50 µg/mL 2-(2,4,5-Trichlorophenoxy)propionic acid, 200 µg/mL 2,4,5-Trichlorophenoxyacetic acid, 200 µg/mL</i>	
EPA 8150 Herbicide Methyl Derivatives Mix	in hexane (varied conc.)	47375	1 mL
	<i>4-Chloro-2-methylphenoxyacetic acid, 200 µg/mL 2,4-Dichlorophenoxyacetic acid, 200 µg/mL 4-(2,4-Dichlorophenoxy)butyric acid, 200 µg/mL 2,2-Dichloropropionic acid, 200 µg/mL Dicamba, 200 µg/mL</i>	<i>Dichlorprop, 200 µg/mL Dinoseb, 200 µg/mL Mecoprop, 2000 µg/mL 2,4,5-Trichlorophenoxyacetic acid, 200 µg/mL 2-(2,4,5-Trichlorophenoxy)propionic acid, 200 µg/mL</i>	
Methyl Herbicide Mix	in hexane (varied conc.)	861264	1 mL
	<i>Dicamba methyl ester, 100 µg/mL Dichlorprop-methyl ester, 100 µg/mL Dinoseb methyl ether, 100 µg/mL Methyl (4-chloro-2-methylphenoxy)acetate, 10000 µg/mL</i>	<i>2,4-D methyl ester, 100 µg/mL Methyl 2,2-dichloropropionate Methyl (2,4,5-trichlorophenoxy)acetate, 100 µg/mL Methyl 2-(2,4,5-trichlorophenoxy)propionate</i>	
EPA 8151 Herbicide acid mix	in acetone (varied)	48996-U	1 mL
	<i>Acifluorfen, 100 µg/mL Bentazon, 100 µg/mL Chloramben, 100 µg/mL 2,4-D, 100 µg/mL 2,4-DB acid, 100 µg/mL Dalapon, 100 µg/mL DCPA diacid (Dacthal®) Dicamba, 100 µg/mL 3,5-Dichlorobenzoic acid, 100 µg/mL</i>	<i>Dichlorprop, 100 µg/mL Dinoseb, 100 µg/mL MCPA, 10000 µg/mL MCPP, 10000 µg/mL 4-Nitrophenol, 100 µg/mL Pentachlorophenol, 100 µg/mL Picloram, 100 µg/mL 2,4,5-T, 100 µg/mL 2,4,5-TP, 100 µg/mL</i>	

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Description	Concentration	Cat. No.	Qty
EPA 8151 Methylated herbicide mix	in acetone (varied) Acifluorfen methyl ester, 100 µg/mL Bentazon methyl derivative, 100 µg/mL Chloroamben methyl ester, 100 µg/mL 2,4-D methyl ester, 100 µg/mL 2,4-DB methyl ester, 100 µg/mL Dacthal dimethyl (DCPA methyl ester), 100 µg/mL Dalapon methyl ester, 100 µg/mL Dicamba methyl ester, 100 µg/mL 3,5-Dichlorobenzoic acid methyl ester, 100 µg/mL Dichloroprop methyl ester, 100 µg/mL Dinoseb methyl ether, 100 µg/mL MCPA methyl ester, 10000 µg/mL MCPP methyl ester, 10000 µg/mL 4-Nitroanisole, 100 µg/mL Pentachloroanisole, 100 µg/mL Picloram methyl ester, 100 µg/mL 2,4,5-T methyl ester, 100 µg/mL 2,4,5-TP methyl ester, 100 µg/mL	48997-U	1 mL
2,4-D methyl ester solution	200 µg/mL in hexane	47979	1 mL
2,4-DB methyl ester solution	200 µg/mL in hexane	47981	1 mL
Dicamba methyl ester solution	200 µg/mL in hexane	47982	1 mL
Dinoseb methyl ether solution	200 µg/mL in hexane	47984	1 mL
MCPA methyl ester solution	2000 µg/mL in hexane	47985-U	1 mL
MCPP methyl ester solution	2000 µg/mL in hexane	47986	1 mL
2,4,5-T methyl ester solution	200 µg/mL in hexane	47988	1 mL
2,4,5-TP methyl ester solution	200 µg/mL in hexane	47987-U	1 mL
standard type internal/surrogate			
4,4'-Dibromooctafluorobiphenyl solution	250 µg/mL in acetone	47644-U	1 mL
standard type surrogate			
Methyl 2,4-dichlorophenylacetate solution	100 µg/mL in acetone	47339	1 mL
Methyl 2,4-dichlorophenylacetate solution	2000 µg/mL in acetone	47329-U	1 mL
2,4-Dichlorophenylacetic acid solution	100 µg/mL in acetone	49344-U 49343-U	1 mL 2 × 5 mL
standard type spiking			
Acid Herbicide Spiking Mix	in methanol (varied) 4-Chloro-2-methylphenoxyacetic acid Dicamba, 100 µg/mL 2,4-Dichlorophenoxyacetic acid, 200 µg/mL 4-(2,4-Dichlorophenoxy)butyric acid, 200 µg/mL 2,2-Dichloropropionic acid, 100 µg/mL Dichloroprop, 200 µg/mL Dinoseb, 30 µg/mL Mecoprop, 20000 µg/mL Pentachlorophenol, 25 µg/mL Silvex, 50 µg/mL 2,4,5-T, 50 µg/mL	861386-U	1 mL
Acid Herbicide Spiking Mix 2	in acetone (varied) 2,4-Dichlorophenoxyacetic acid, 50 µg/mL 2-(2,4,5-Trichlorophenoxy)propionic acid 2,4,5-Trichlorophenoxyacetic acid	861259	10 mL

Method 8240 (Replaced with Method 8260)

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA 8020/8240 Aromatic Volatiles Mix	100 µg/mL each component in methanol Benzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethylbenzene Styrene Toluene o-Xylene m-Xylene p-Xylene	- 47504	1 mL
EPA 8240B Calibration Standard Mix 1	2000 µg/mL each component in methanol Bromochloromethane Bromodichloromethane Dibromochloromethane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane cis-1,4-Dichloro-2-butene trans-1,4-Dichloro-2-butene 1,1-Dichloroethylene cis-1,2-Dichloroethylene trans-1,2-Dichloroethylene Dichloromethane 1,3-Dichloropropane 2,2-Dichloropropane 1,1-Dichloro-1-propene cis-1,3-Dichloropropene trans-1,3-Dichloropropene	- 47363	1 mL
EPA 8240B Calibration Mix	2000 µg/mL each component in methanol Bromodichloromethane Dibromochloromethane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane cis-1,4-Dichloro-2-butene trans-1,4-Dichloro-2-butene 1,1-Dichloroethylene trans-1,2-Dichloroethylene Dichloromethane cis-1,3-Dichloropropene trans-1,3-Dichloropropene	- 47276	1 mL
EPA 8240B Calibration Standard Mix 2	2000 µg/mL each component in methanol: water (4:1) Acetone Acetonitrile Acrylonitrile 2-Butanone 2-Hexanone 4-Methyl-2-pentanone 2-Methyl-1-propanol	- 47364	1 mL

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Method 8240 (Replaced with Method 8260) (continued)

Description	Concentration		Cat. No.	Qty
EPA 8240B Calibration Standard Mix 3	2000 µg/mL each component in methanol	-	47365	1 mL
	<i>Allyl chloride</i> <i>Benzene</i> <i>Chlorobenzene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Ethylbenzene</i> <i>Ethyl methacrylate</i>	<i>Methacrylonitrile</i> <i>Methyl methacrylate</i> <i>Propionitrile</i> <i>Styrene</i> <i>Toluene</i> <i>1,2,3-Trichlorobenzene</i> <i>o-Xylene</i> <i>m-Xylene</i>		
EPA 8240B Calibration Standard Mix 4	2000 µg/mL each component in methanol	-	47366	1 mL
	<i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromomethane</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,2-Dichloropropane</i>	<i>1,1,1,2-Tetrachloroethane</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>1,2,3-Trichloropropane</i>		
EPA VOC Mix 6	2000 µg/mL each component in methanol	SS	458799 48799-U	1.5 mL 1.5 mL
	<i>Bromomethane</i> <i>Chloroethane</i> <i>Chloromethane</i>	<i>Dichlorodifluoromethane</i> <i>Trichlorofluoromethane</i> <i>Vinyl chloride</i>		
EPA 8240B Calibration Mix 6	2000 µg/mL each component in methanol	-	48256	1 mL
	<i>cis-1,4-Dichloro-2-butene</i> <i>trans-1,4-Dichloro-2-butene</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i>	<i>1,4-Dioxane</i> <i>Iodomethane</i> <i>Pentachloroethane</i>		
EPA 8240B Calibration Mix 7	2000 µg/mL each component in methanol	-	48257	1 mL
	<i>Allyl chloride</i> <i>Ethyl methacrylate</i> <i>Methacrylonitrile</i> <i>Methyl methacrylate</i>	<i>2-Picoline</i> <i>Propionitrile</i> <i>Pyridine</i> <i>Styrene</i>		
Acrolein	-	SS	458501 48501	100 mg 5 g
Chloral hydrate solution	1000 µg/mL in acetonitrile	-	47335-U	1 mL
Chloroprene solution	2000 µg/mL in methanol	SS	85561145 861145	1 mL 1 mL
Vinyl acetate	-	SS	458486 48486	100 mg 1 g
standard type internal				
EPA 8240/8260 VOA Internal Standards Mix	1000 µg/mL each component in methanol	-	48835	1 mL
	<i>Bromochloromethane</i> <i>Chlorobenzene-d₅</i>	<i>1,4-Difluorobenzene</i>		
standard type surrogate				
EPA 8240/8260 VOA Surrogate Spike Mix	1000 µg/mL each component in methanol	-	48101	1 mL
	<i>4-Bromofluorobenzene</i> <i>1,2-Dichloroethane-d₄</i>	<i>Toluene-d₈</i>		
standard type matrix spiking				
EPA 8240B/8260A Matrix Spike Mix	25 µg/mL each component in methanol 25 µg/L each component in methanol	-	47075-U 47412	1 mL 10 × 1 mL
	<i>Benzene</i> <i>Chlorobenzene</i> <i>1,1-Dichloroethylene</i>	<i>Toluene</i> <i>Trichloroethylene</i>		
EPA 8240B/8260A Matrix Spike Mix	2500 µg/mL each component in methanol	-	47411-U	1 mL
	<i>Benzene</i> <i>Chlorobenzene</i> <i>1,1-Dichloroethylene</i>	<i>Toluene</i> <i>Trichloroethylene</i>		
standard type system performance check				
EPA 8240B/8260A System Performance Check Compounds	2000 µg/mL each component in methanol	-	47389	1 mL
	<i>Bromoform</i> <i>Chlorobenzene</i> <i>Chloromethane</i>	<i>1,1-Dichloroethane</i> <i>1,1,2,2-Tetrachloroethane</i>		
EPA 8240B/8260A Calibration Check Compounds	2000 µg/mL each component in methanol	SS	47385-U 457385	1 mL 1 mL
	<i>Chloroform</i> <i>1,1-Dichloroethylene</i> <i>1,2-Dichloropropane</i>	<i>Ethylbenzene</i> <i>Toluene</i> <i>Vinyl chloride</i>		

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Description	Concentration		Cat. No.	Qty
standard type tuning solution				
EPA 8240B/8260A GC-MS Tuning Mix	25 µg/mL in methanol	-	47077 47414	1 mL 4 × 1 mL
	4-Bromofluorobenzene			
1-Bromo-4-fluorobenzene solution	25,000 µg/mL in methanol	-	48800	1 mL
Decafluorotriphenylphosphine solution	25,000 µg/mL in methylene chloride	-	48724-U	1 mL
Perfluorotributylamine (PFTBA)	-	-	442747-U	1000 mg

Method 8260

For the most current and complete listing of EPA 8260 calibration standards, visit www.sigmaaldrich.com.

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA 8260 Volatiles Calibration Mix	2000 µg/mL each component in methanol	-	500607	1 mL
	Benzene	1,2-Dichloropropane		
	Bromobenzene	1,3-Dichloropropane		
	Bromochloromethane	2,2-Dichloropropane		
	Bromodichloromethane	1,1-Dichloro-1-propene		
	Bromoform	Ethylbenzene		
	Butylbenzene	Hexachloro-1,3-butadiene		
	sec-Butylbenzene	Isopropylbenzene		
	tert-Butylbenzene	p-Isopropyltoluene		
	Carbon tetrachloride	Naphthalene		
	Chlorobenzene	Propylbenzene		
	Chloroform	Styrene		
	2-Chlorotoluene	1,1,1,2-Tetrachloroethane		
	4-Chlorotoluene	1,1,2,2-Tetrachloroethane		
	Dibromochloromethane	Tetrachloroethylene		
	1,2-Dibromo-3-chloropropane	Toluene		
	1,2-Dibromoethane	1,2,3-Trichlorobenzene		
	Dibromomethane	1,2,4-Trichlorobenzene		
	1,2-Dichlorobenzene	1,1,1-Trichloroethane		
	1,3-Dichlorobenzene	1,1,2-Trichloroethane		
	1,4-Dichlorobenzene	Trichloroethylene		
	1,1-Dichloroethane	1,2,3-Trichloropropane		
	1,2-Dichloroethane	1,2,4-Trimethylbenzene		
	1,1-Dichloroethylene	1,3,5-Trimethylbenzene		
	cis-1,2-Dichloroethylene	o-Xylene		
	trans-1,2-Dichloroethylene	m-Xylene		
	Dichloromethane	p-Xylene		
EPA VOC Mix 6	2000 µg/mL each component in methanol	SS	458799 48799-U	1.5 mL 1.5 mL
	Bromomethane	Dichlorodifluoromethane		
	Chloroethane	Trichlorofluoromethane		
	Chloromethane	Vinyl chloride		
EPA VOC Mix 6	2000 µg/mL each component in methanol	-	47408	4 × 1 mL
	Bromomethane	Dichlorodifluoromethane		
	Chloroethane	Trichlorofluoromethane		
	Chloromethane	Vinyl chloride		
EPA 8260 Volatile Calibration Kit	-	-	47442-U	1 kit
	EPA 8260 Volatiles Calibration Mix (Supelco 500607), EPA VOC Mix 6 (Supelco 48799-U) 1 mL			
Iodomethane solution	2000 µg/mL in methanol: water (4:1)	-	506052	1 mL
EPA VOC Mix 1	2000 µg/mL each component in methanol	SS	48775 48775	1 mL 1 mL
	sec-Butylbenzene	1,3-Dichlorobenzene		
	tert-Butylbenzene	1,4-Dichlorobenzene		
	Chlorobenzene	Isopropylbenzene		
	2-Chlorotoluene	Propylbenzene		
	4-Chlorotoluene	o-Xylene		
	1,2-Dichlorobenzene	p-Xylene		
EPA VOC Mix 2	2000 µg/mL each component in methanol	SS	458777 48777	1 mL 1 mL
	Benzene	Toluene		
	Bromobenzene	1,2,3-Trichlorobenzene		
	Butylbenzene	1,2,4-Trichlorobenzene		
	Ethylbenzene	1,2,4-Trimethylbenzene		
	p-Isopropyltoluene	1,3,5-Trimethylbenzene		
	Naphthalene	m-Xylene		
	Styrene			

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Method 8260 (continued)

Description	Concentration		Cat. No.	Qty
EPA VOC Mix 3	2000 µg/mL each component in methanol		SS 458779 48779	1 mL 1 mL
	1,2-Dibromo-3-chloropropane 1,2-Dibromoethane 1,2-Dichloroethane 1,2-Dichloropropane 1,3-Dichloropropane 1,1-Dichloro-1-propene cis-1,3-Dichloropropene	trans-1,3-Dichloropropene Hexachloro-1,3-butadiene 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane Trichloroethylene 1,2,3-Trichloropropane		
EPA VOC Mix 4	2000 µg/mL each component in methanol		SS 458786 48786	1 mL 1 mL
	Bromochloromethane Bromoform Carbon tetrachloride Chloroform Dibromomethane	1,1-Dichloroethane 2,2-Dichloropropane Tetrachloroethylene 1,1,1-Trichloroethane		
EPA VOC Mix 5	2000 µg/mL each component in methanol		SS 458797 48797	1 mL 1 mL
	Bromodichloromethane Dibromochloromethane 1,1-Dichloroethylene	cis-1,2-Dichloroethylene trans-1,2-Dichloroethylene Dichloromethane		
EPA VOC Calibration Standards Kit	-		SS 48804 48804	1 kit 1 kit
	EPA Volatile Organic Compounds Mix 1 (48775), 1 mL EPA Volatile Organic Compounds Mix 2 (48777), 1 mL EPA Volatile Organic Compounds Mix 3 (48779), 1 mL	EPA Volatile Organic Compounds Mix 4 (48786), 1 mL EPA Volatile Organic Compounds Mix 5 (48797), 1 mL EPA Volatile Organic Compounds Mix 6 (48799-U), 1.5 mL		
EPA 8260 Calibration Mix 2	2000 µg/mL each component in methanol: water (19:1)		SS 456831-U 46831-U	1.5 mL 1.5 mL
	Acetone 2-Butanone Carbon disulfide 2-Chloroethyl vinyl ether	2-Hexanone Iodomethane 4-Methyl-2-pentanone Vinyl acetate		
Acrolein/Acrylonitrile Mix	2000 µg/mL each component in H ₂ O		SS 456870-U 46870-U	1 mL 1 mL
	Acrolein	Acrylonitrile		
Acrolein/Acrylonitrile Mix	10,000 µg/mL in deionized water		- 46871-U	1 mL
	Acrolein	Acrylonitrile		
EPA Appendix IX Volatiles Calibration Mix	2000 µg/mL each component in methanol		- 506532	4 × 1 mL
	Acetonitrile Acrylonitrile Allyl chloride Benzene Bromodichloromethane Bromoform Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroform Dibromochloromethane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene trans-1,4-Dichloro-2-butene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene trans-1,2-Dichloroethylene Dichloromethane 1,2-Dichloropropane cis-1,3-Dichloropropene	trans-1,3-Dichloropropene 1,4-Dioxane Ethylbenzene Ethyl methacrylate Hexachloroethane Methacrylonitrile Methyl methacrylate 2-Methyl-1-propanol Naphthalene Pentachloroethane Propionitrile Pyridine trifluoroacetate Styrene 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene Toluene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene 1,2,3-Trichloropropane o-Xylene m-Xylene p-Xylene		
EPA TCL Volatiles Mix 1	2000 µg/mL each component in methanol: water (9:1)		SS 458949 48949	1 mL 1 mL
	Acetone 2-Butanone	2-Hexanone 4-Methyl-2-pentanone		
Acrolein	-		SS 458501 48501	100 mg 5 g
Vinyl acetate	-		SS 458486 48486	100 mg 1 g

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Description	Concentration		Cat. No.	Qty
EPA 8260 Calibration Mix 1	2000 µg/mL each component in methanol		 861339 8561339	1 mL 1.5 mL
	Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoforn Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chloroform 2-Chlorotoluene 4-Chlorotoluene Cumene Dibromochloromethane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethylene cis-1,2-Dichloroethylene trans-1,2-Dichloroethylene Dichloromethane	1,2-Dichloropropane 1,3-Dichloropropane 2,2-Dichloropropane 1,1-Dichloro-1-propene cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethylbenzene Hexachloro-1,3-butadiene p-Cymene Naphthalene Propylbenzene Styrene 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethylene Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene Mesitylene o-Xylene m-Xylene p-Xylene		
EPA 8260 Calibration Mix 1 Low	in methanol (varied conc.)		- 861326	1 mL
	Benzene, 200 µg/mL Bromobenzene, 1000 µg/mL Bromochloromethane, 1000 µg/mL Bromodichloromethane, 200 µg/mL Bromoforn, 800 µg/mL Butylbenzene, 1000 µg/mL sec-Butylbenzene, 1000 µg/mL tert-Butylbenzene, 1000 µg/mL Carbon tetrachloride, 400 µg/mL Chlorobenzene, 1000 µg/mL Chloroform, 1000 µg/mL 2-Chlorotoluene, 1000 µg/mL 4-Chlorotoluene, 1000 µg/mL Dibromochloromethane, 1000 µg/mL 1,2-Dibromo-3-chloropropane, 1000 µg/mL Dibromomethane, 1000 µg/mL Dibromomethane, 1000 µg/mL 1,2-Dichlorobenzene, 1000 µg/mL 1,3-Dichlorobenzene, 1000 µg/mL 1,4-Dichlorobenzene, 1000 µg/mL 1,1-Dichloroethane, 1000 µg/mL 1,2-Dichloroethane, 400 µg/mL 1,1-Dichloroethylene, 400 µg/mL cis-1,2-Dichloroethylene, 1000 µg/mL trans-1,2-Dichloroethylene, 1000 µg/mL Dichloromethane, 600 µg/mL 1,2-Dichloropropane, 200 µg/mL	1,3-Dichloropropane, 1000 µg/mL 2,2-Dichloropropane, 1000 µg/mL 1,1-Dichloro-1-propene, 1000 µg/mL cis-1,3-Dichloropropene, 1000 µg/mL trans-1,3-Dichloropropene, 1000 µg/mL Ethylbenzene, 800 µg/mL Hexachloro-1,3-butadiene, 1000 µg/mL p-Isopropyltoluene, 1000 µg/mL Isopropylbenzene, 1000 µg/mL Naphthalene, 1000 µg/mL Propylbenzene, 1000 µg/mL Styrene, 1000 µg/mL 1,1,1,2-Tetrachloroethane, 1000 µg/mL 1,1,2,2-Tetrachloroethane, 200 µg/mL Tetrachloroethylene, 200 µg/mL Toluene, 1000 µg/mL 1,2,3-Trichlorobenzene, 1000 µg/mL 1,2,4-Trichlorobenzene, 1000 µg/mL 1,1,1-Trichloroethane, 1000 µg/mL 1,1,2-Trichloroethane, 600 µg/mL Trichloroethylene, 200 µg/mL 1,2,3-Trichloropropane, 1000 µg/mL 1,2,4-Trimethylbenzene, 1000 µg/mL 1,3,5-Trimethylbenzene, 1000 µg/mL o-Xylene, 1000 µg/mL m-Xylene, 2000 µg/mL p-Xylene, 2000 µg/mL		
8260 Calibration Mix 2A	2000 µg/mL each component in methanol		- 861208	1 mL
	Allyl chloride tert-Butyl methyl ether Carbon disulfide trans-1,4-Dichloro-2-butene Dichlorofluoromethane Diethyl ether	Ethyl methacrylate Hexane Methyl methacrylate 2-Nitropropane Tetrahydrofuran 1,1,2-Trichloro-1,2,2-trifluoroethane		
EPA 8260 Calibration Mix 3	in methanol (varied conc.)		- 868084	1 mL
	Acetonitrile, 2000 µg/mL Acrylonitrile, 2000 µg/mL 1-Butanol, 4000 µg/mL tert-Butanol, 4000 µg/mL Diisopropyl ether, 1000 µg/mL	1,4-Dioxane, 10000 µg/mL Ethanol, 10000 µg/mL Methacrylonitrile, 2000 µg/mL 2-Methyl-1-propanol, 4000 µg/mL Propionitrile, 2000 µg/mL		
EPA 8260 Calibration Mix 5	in methanol: water (85:15) (varied conc.)		 8561298 861298	1.5 mL 1.5 mL
	Acetonitrile, 10000 µg/mL Acrylonitrile, 10000 µg/mL Allyl chloride, 2000 µg/mL tert-Butanol, 40000 µg/mL tert-Butyl methyl ether, 2000 µg/mL Cyclohexanone, 40000 µg/mL trans-1,4-Dichloro-2-butene, 2000 µg/mL Diethyl ether, 2000 µg/mL 1,4-Dioxane, 40000 µg/mL Ethyl methacrylate, 2000 µg/mL	Heptane, 2000 µg/mL Methacrylonitrile, 2000 µg/mL Methyl methacrylate, 2000 µg/mL 2-Methyl-1-propanol, 40000 µg/mL Nitrobenzene, 4000 µg/mL 2-Nitropropane, 4000 µg/mL Propionitrile, 10000 µg/mL Tetrahydrofuran, 2000 µg/mL 1,1,2-Trichloro-1,2,2-trifluoroethane, 2000 µg/mL		

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Method 8260 (continued)

Description	Concentration		Cat. No.	Qty
EPA 8260 Mix 5	in methanol: water (9:1) (varied)	SS	8561323 861323	1 mL 1 mL
	Acetone, 2000 µg/mL tert-Butanol, 40000 µg/mL 2-Butanone, 2000 µg/mL tert-Butyl methyl ether, 2000 µg/mL			
	Carbon disulfide, 2000 µg/mL 2-Hexanone, 2000 µg/mL 4-Methyl-2-pentanone, 2000 µg/mL Vinyl acetate, 2000 µg/mL			
EPA 8260 Mix 6	in methanol (varied)	SS	8561309 861309	1 mL 1 mL
	Acetonitrile, 40000 µg/mL Benzyl chloride, 2000 µg/mL Butyl acetate, 4000 µg/mL Cyclohexane, 2000 µg/mL Diethyl ether, 2000 µg/mL Diisopropyl ether, 2000 µg/mL (±)-Epichlorohydrin, 40000 µg/mL Ethyl acetate, 4000 µg/mL			
	Isoprene, 2000 µg/mL Isopropyl acetate, 4000 µg/mL Methyl acetate, 2000 µg/mL Methylcyclohexane, 2000 µg/mL Methyl methacrylate, 2000 µg/mL Pentane, 2000 µg/mL Propyl acetate, 4000 µg/mL 1,1,2-Trichloro-1,2,2-trifluoroethane, 2000 µg/mL			
EPA 8270 Base Neutral Calibration Mix 2 (2nd Lot)	2000 µg/mL each component in methylene chloride	-	861217	5 mL
	Acenaphthene Acenaphthylene Aniline Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene Benzyl alcohol Benzyl butyl phthalate Bis(2-chloroethoxy)methane Bis(2-chloroethyl) ether Bis(2-ethylhexyl) phthalate 4-Bromodiphenyl ether Carbazole 4-Chloroaniline 4-Chlorodiphenyl ether Bis-(2-chloroisopropyl) ether 2-Chloronaphthalene Chrysene Dibenz[a,h]anthracene Dibenzofuran Dibutyl phthalate 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Diethyl phthalate			
	Dimethylamine Dimethyl phthalate 2,4-Dinitrotoluene 2,6-Dinitrotoluene Di-n-octyl phthalate 1,4-Dioxane Diphenyl ether Fluoranthene Fluorene Hexachlorobenzene Hexachloro-1,3-butadiene Hexachlorocyclopentadiene Hexachloroethane Hydrazobenzene Indeno[1,2,3-cd]pyrene Isophorone 2-Methylnaphthalene Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline Nitrobenzene N-Nitrosodimethylamine N-Nitrosodi-n-propylamine Phenanthrene Pyrene Pyridine trifluoroacetate 1,2,4-Trichlorobenzene			
EPA 8260 Ketones Mix	in methanol: water (3:7) (varied)	-	861149	1 mL
	Acetone, 2000 µg/mL 2-Butanone, 2000 µg/mL Cyclohexanone, 20000 µg/mL			
	2-Hexanone, 2000 µg/mL 4-Methyl-2-pentanone, 2000 µg/mL			
standard type internal				
EPA 8260A Internal Standards Mix 1	250 µg/mL each component in methanol	-	47776 46839-U 861184	1 mL 5 mL 5 × 5 mL
	Chlorobenzene-d ₅ 1,4-Dichlorobenzene-d ₄			
	Fluorobenzene			
EPA 8260 Internal Standards Mix 1	2500 µg/mL in methanol	-	46838-U 861183	1 mL 5 × 1 mL
	Chlorobenzene-d ₅ 1,4-Dichlorobenzene-d ₄			
	Fluorobenzene			
EPA 8260 Internal Standard Mix	25 µg/mL in methanol	-	47392	1 mL
	Chlorobenzene-d ₅ 1,4-Dichlorobenzene-d ₄			
	1,4-Difluorobenzene Pentafluorobenzene			
EPA 8260 Internal Standards Mix	2000 µg/mL each component in methanol	-	48958	1 mL
	Chlorobenzene-d ₅ 1,4-Dichlorobenzene-d ₄			
	1,4-Difluorobenzene Pentafluorobenzene			
EPA 8260 Internal Standards Mix	2500 µg/mL each component in methanol	-	47081-U 861299	1 mL 5 × 1 mL
	Chlorobenzene-d ₅ 1,4-Dichlorobenzene-d ₄			
	1,4-Difluorobenzene Pentafluorobenzene			
EPA 8260 Internal Standards Mix HC	10000 µg/mL in methanol	-	47082-U	1 kit
	Chlorobenzene-d ₅ 1,4-Dichlorobenzene-d ₄			
	1,4-Difluorobenzene Pentafluorobenzene			

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Description	Concentration		Cat. No.	Qty
standard type surrogate				
EPA 8260 Surrogate Standard Mix	2000 µg/mL each component in methanol <i>4-Bromofluorobenzene</i> <i>Dibromofluoromethane</i>	<i>Toluene-d₈</i>	- 48959	1 mL
EPA 8260A Surrogate Standards Mix	250 µg/mL each component in methanol <i>4-Bromofluorobenzene</i> <i>Dibromofluoromethane</i>	<i>1,2-Dichloroethane-d₄</i> <i>Toluene-d₈</i>	- 47779	1 mL
EPA 8260A Surrogate Standards Mix	2000 µg/mL each component in methanol <i>4-Bromofluorobenzene</i> <i>Dibromofluoromethane</i>	<i>1,2-Dichloroethane-d₄</i> <i>Toluene-d₈</i>	- 47778	1 mL
EPA 8260 Surrogate Std. Mix	2500 µg/mL each component in methanol <i>4-Bromofluorobenzene</i> <i>Dibromofluoromethane</i>	<i>1,2-Dichloroethane-d₄</i> <i>Toluene-d₈</i>	- 861135	10 mL
EPA 8260 Surrogate Standards Mix, High Concentration	10,000 µg/mL in methanol <i>4-Bromofluorobenzene</i> <i>Dibromofluoromethane</i>	<i>1,2-Dichloroethane-d₄</i> <i>Toluene-d₈</i>	- 49112-U	1 mL
standard type matrix spiking				
EPA 8240B/8260A Matrix Spike Mix	25 µg/L each component in methanol 25 µg/mL each component in methanol <i>Benzene</i> <i>Chlorobenzene</i> <i>1,1-Dichloroethylene</i>	<i>Toluene</i> <i>Trichloroethylene</i>	- 47075-U 47412	1 mL 10 × 1 mL
EPA 8240B/8260A Matrix Spike Mix	2500 µg/mL each component in methanol <i>Benzene</i> <i>Chlorobenzene</i> <i>1,1-Dichloroethylene</i>	<i>Toluene</i> <i>Trichloroethylene</i>	- 47411-U	1 mL
standard type system performance check				
EPA 8240B/8260A System Performance Check Compounds	2000 µg/mL each component in methanol <i>Bromoform</i> <i>Chlorobenzene</i> <i>Chloromethane</i>	<i>1,1-Dichloroethane</i> <i>1,1,2,2-Tetrachloroethane</i>	- 47389	1 mL
EPA 8240B/8260A Calibration Check Compounds	2000 µg/mL each component in methanol <i>Chloroform</i> <i>1,1-Dichloroethylene</i> <i>1,2-Dichloropropane</i>	<i>Ethylbenzene</i> <i>Toluene</i> <i>Vinyl chloride</i>	 47385-U 457385	1 mL 1 mL
standard type tuning solution				
EPA 8240B/8260A GC-MS Tuning Mix	25 µg/mL in methanol <i>4-Bromofluorobenzene</i>		- 47077 47414	1 mL 4 × 1 mL
1-Bromo-4-fluorobenzene solution	25,000 µg/mL in methanol		- 48800	1 mL



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Method 8270

This method calls for a phenol-d₆ standard, and phenol-d₆ raw material is used to manufacture product numbers 47960-U, 48875, 47260-U, 47419, and 47619-U. However, phenolic hydrogen exchange occurs naturally, converting phenol-d₆ to phenol-d₅. In analyzing this standard, your system will detect phenol-d₅, not phenol-d₆.

For the most current and complete listing of EPA 8270 calibration standards, visit www.sigmaldrich.com.

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA CLP Semivolatile Calibration Mix	1000 µg/mL each component in methylene chloride: benzene (3:1)		506508 506508	1 mL 1 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Azobenzene</i> <i>Benzo[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chloroaniline</i> <i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i> <i>4-Chloro-3-methylphenol</i> <i>2-Chloronaphthalene</i> <i>2-Chlorophenol</i> <i>Chrysene</i> <i>p-Cresol</i> <i>Dibenz[a,h]anthracene</i> <i>Dibenzofuran</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>2,4-Dichlorophenol</i> <i>Diethyl phthalate</i> <i>2,4-Dimethylphenol</i>	<i>Dimethyl phthalate</i> <i>2,4-Dinitrophenol</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>2-Methyl-4,6-dinitrophenol</i> <i>2-Methylnaphthalene</i> <i>o-Cresol</i> <i>Naphthalene</i> <i>2-Nitroaniline</i> <i>3-Nitroaniline</i> <i>4-Nitroaniline</i> <i>Nitrobenzene</i> <i>2-Nitrophenol</i> <i>4-Nitrophenol</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Pentachlorophenol</i> <i>Phenanthrene</i> <i>Phenol</i> <i>Pyrene</i> <i>1,2,4-Trichlorobenzene</i> <i>2,4,5-Trichlorophenol</i> <i>2,4,6-Trichlorophenol</i>		
EPA 8270/APP IX SemivolCalib Mix	1000 µg/mL each component in methylene chloride		506567 456701-U	1 mL 1 mL
	<i>4-Aminobiphenyl</i> <i>Aniline</i> <i>Benzyl alcohol</i> <i>m-Cresol</i> <i>2,6-Dichlorophenol</i> <i>p-Dimethylaminoazobenzene</i> <i>7,12-Dimethylbenz[a]anthracene</i> <i>1,3-Dinitrobenzene</i> <i>Dinoseb (2-sec-Butyl-4,6-dinitrophenol)</i> <i>Diphenylamine</i> <i>Ethyl methanesulfonate</i> <i>N-(2-Fluorenyl)acetamide</i> <i>Hexachloropropene</i> <i>Isosafrol</i> <i>Methapyrene HCl</i> <i>3-Methylcholanthrene</i> <i>Methyl methanesulfonate</i> <i>2-Methyl-5-nitroaniline</i>	<i>1-Naphthylamine</i> <i>2-Naphthylamine</i> <i>4-Nitroquinoline N-oxide</i> <i>N-Nitrosodibutylamine</i> <i>N-Nitrosodiethylamine</i> <i>N-Nitrosomethylethylamine</i> <i>Nitrosomorpholine</i> <i>1-Nitrosopiperidine</i> <i>1-Nitrosopyrrolidine</i> <i>Pentachlorobenzene</i> <i>Phenacetin</i> <i>2-Picoline (2-methylpyridine)</i> <i>Safrole</i> <i>1,2,4,5-Tetrachlorobenzene</i> <i>2,3,4,6-Tetrachlorophenol</i> <i>o-Toluidine (2-methylaniline)</i> <i>1,3,5-Trinitrobenzene</i>		
Benzoic acid solution	2000 µg/mL in methylene chloride	-	47508-U	1 mL
Hexachlorophene solution	5000 µg/mL in methanol	-	40323	1 mL
1,4-Naphthoquinone solution	2000 µg/mL in methylene chloride	-	47511-U	1 mL
N-Nitrosodiphenylamine solution	5000 µg/mL in methanol	-	40060	1 mL
EPA 8270 Appendix IX Kit	-	-	47348-U	1 ea
	<i>CLP Semivolatile Calibration Mix (506508), 1 mL</i> <i>EPA 8270/Appendix IX Semivolatile Calibration Mix (506567), 1 mL</i> <i>EPA 8270 Benzidines Mix (48467), 1 mL</i> <i>Benzoic Acid (47508-U), 1 mL</i>	<i>Hexachlorophene (40323), 1 mL</i> <i>1,4-Naphthoquinone (47511-U), 1 mL</i> <i>N-Nitrosodiphenylamine (40060), 1 mL</i> <i>1,4-Phenylenediamine (48298), 1 mL</i>		
Aramite solution	2000 µg/mL in methylene chloride	-	47519-U	1 mL

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Description	Concentration		Cat. No.	Qty
EPA 8270/625/CLP/Appendix IX Semivolatile Calibration Mix	1000 µg/mL each component in methylene chloride: benzene (3:1)	-	502049	1 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Azobenzene</i> <i>Benzo[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i> <i>2-Chloronaphthalene</i> <i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i>	<i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>Naphthalene</i> <i>Nitrobenzene</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Phenanthrene</i> <i>Pyrene</i> <i>1,2,4-Trichlorobenzene</i>		
EPA APP IX Supplemental Mix 1 SS	2000 µg/mL each component in methylene chloride	SS	456704-U 46704-U	1 mL 1 mL
	<i>Dimethoate</i> <i>Disulfoton</i> <i>Famphur</i> <i>Parathion</i> <i>Parathion-methyl</i>	<i>Phorate</i> <i>Sulfotep</i> <i>Thionazin</i> <i>Triethyl thiophosphate</i>		
EPA 8270 Appendix IX Supplemental Mix 2	2000 µg/mL each component in methylene chloride: benzene (4:1)	SS	8561141 861141	1 mL 1 mL
	<i>Kepone</i> <i>Chlorobenzilate</i> <i>Diallate</i> <i>Dibenz[a,j]acridine</i> <i>α,α-Dimethylphenethylamine</i> <i>1,4-Dinitrobenzene</i>	<i>1,4-Dioxane</i> <i>Isodrine</i> <i>1-Methylnaphthalene</i> <i>1,4-Naphthoquinone</i> <i>Propyzamide</i> <i>2,3,5,6-Tetrachlorophenol</i>		
EPA Acid Calibration Mix 1	2000 µg/mL each component in methylene chloride	-	861213	2 mL
	<i>2,4-Dinitrophenol</i> <i>2-Methyl-4,6-dinitrophenol</i>	<i>4-Nitrophenol</i> <i>Pentachlorophenol</i>		
EPA 8270 Acid Calibration Mix 2	2000 µg/mL each component in methylene chloride	-	861214	1 mL
	<i>Benzoic acid</i> <i>4-Chloro-2-methylphenol</i> <i>2-Chlorophenol</i> <i>p-Cresol</i> <i>2,4-Dichlorophenol</i> <i>2,4-Dimethylphenol</i>	<i>o-Cresol</i> <i>2-Nitrophenol</i> <i>Phenol</i> <i>2,4,5-Trichlorophenol</i> <i>2,4,6-Trichlorophenol</i>		
EPA 8270 Acid Calibration Mix 2	2000 µg/mL each component in methylene chloride	-	861220	5 mL
	<i>Benzoic acid</i> <i>4-Chloro-3-methylphenol</i> <i>2-Chlorophenol</i> <i>p-Cresol</i> <i>2,4-Dichlorophenol</i>	<i>2,4-Dimethylphenol</i> <i>o-Cresol</i> <i>4-Nitrophenol</i> <i>2,4,5-Trichlorophenol</i> <i>2,4,6-Trichlorophenol</i>		
EPA 8270 Acid Calibration Mix 1(2nd lot)	2000 µg/mL each component in methylene chloride	-	861218	5 mL
	<i>2,4-Dinitrophenol</i> <i>2-Methyl-4,6-dinitrophenol</i>	<i>4-Nitrophenol</i> <i>Pentachlorophenol</i>		
EPA 8270 Phenols Mix	2000 µg/mL each component in isopropanol	-	47377	1 mL
	<i>4-Chloro-3-methylphenol</i> <i>2-Chlorophenol</i> <i>m-Cresol</i> <i>p-Cresol</i> <i>2,4-Dichlorophenol</i> <i>2,6-Dichlorophenol</i> <i>2,4-Dimethylphenol</i> <i>2,4-Dinitrophenol</i> <i>Dinoseb</i>	<i>2-Methyl-4,6-dinitrophenol</i> <i>o-Cresol</i> <i>2-Nitrophenol</i> <i>4-Nitrophenol</i> <i>Pentachlorophenol</i> <i>Phenol</i> <i>2,3,4,6-Tetrachlorophenol</i> <i>2,4,5-Trichlorophenol</i> <i>2,4,6-Trichlorophenol</i>		
EPA 8270 Phenols Mix 2	2000 µg/mL each component in methylene chloride	-	47909	1 mL
	<i>m-Cresol</i> <i>p-Cresol</i> <i>2,6-Dichlorophenol</i> <i>Dinoseb</i>	<i>Hexachlorophene</i> <i>o-Cresol</i> <i>2,3,4,6-Tetrachlorophenol</i> <i>2,4,5-Trichlorophenol</i>		

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Method 8270 (continued)

Description	Concentration	Cat. No.	Qty
EPA 8270A Base-Neutrals Mix	2000 µg/mL each component in methanol <i>Aniline</i> <i>Benzyl alcohol</i> <i>4-Chloroaniline</i> <i>Dibenzofuran</i> <i>2-Methylnaphthalene</i>	- 48470	1 mL
	<i>2-Naphthylamine</i> <i>2-Nitroaniline</i> <i>3-Nitroaniline</i> <i>4-Nitroaniline</i> <i>o-Toluidine</i>		
EPA 8270 Base/Neutrals Mix B	2000 µg/mL each component in methanol <i>Acetophenone</i> <i>4-Aminobiphenyl</i> <i>α,α-Dimethylphenethylamine</i> <i>N-(2-Fluorenyl)acetamide</i>	- 48195	1 mL
	<i>1-Naphthylamine</i> <i>2-Methyl-5-nitroaniline</i> <i>2-Picoline</i> <i>Pyridine</i>		
EPA 8270 Base Neutral Calibration Mix 1	50-1000 µg/mL in methylene chloride (varied) <i>Acenaphthene, 500 µg/mL</i> <i>Acenaphthylene, 500 µg/mL</i> <i>Aniline, 500 µg/mL</i> <i>Anthracene, 500 µg/mL</i> <i>Benz[a]anthracene, 50 µg/mL</i> <i>Benzo[b]fluoranthene, 50 µg/mL</i> <i>Benzo[k]fluoranthene, 50 µg/mL</i> <i>Benzo[ghi]perylene, 500 µg/mL</i> <i>Benzo[a]pyrene, 50 µg/mL</i> <i>Benzyl alcohol, 500 µg/mL</i> <i>Benzyl butyl phthalate, 500 µg/mL</i> <i>Bis(2-chloroethoxy)methane, 500 µg/mL</i> <i>Bis(2-chloroethyl) ether, 50 µg/mL</i> <i>Bis(2-ethylhexyl) phthalate, 500 µg/mL</i> <i>4-Bromodiphenyl ether, 500 µg/mL</i> <i>Carbazole, 500 µg/mL</i> <i>4-Chloroaniline, 500 µg/mL</i> <i>4-Chlorodiphenyl ether, 500 µg/mL</i> <i>Bis-(2-chloroisopropyl) ether, 500 µg/mL</i> <i>2-Chloronaphthalene, 500 µg/mL</i> <i>Chrysene, 500 µg/mL</i> <i>Dibenz[a,h]anthracene, 50 µg/mL</i> <i>Dibenzofuran, 500 µg/mL</i> <i>Dibutyl phthalate, 500 µg/mg protein</i> <i>1,2-Dichlorobenzene, 500 µg/mL</i> <i>1,3-Dichlorobenzene, 500 µg/mL</i> <i>1,4-Dichlorobenzene, 500 µg/mL</i> <i>Diethyl phthalate, 500 µg/mL</i>	- 861212	1 mL
	<i>N,N-Dimethylaniline, 50 µg/mL</i> <i>Dimethyl phthalate, 500 µg/mL</i> <i>2,4-Dinitrotoluene, 100 µg/mL</i> <i>2,6-Dinitrotoluene, 100 µg/mL</i> <i>Di-n-octyl phthalate, 500 µg/mL</i> <i>1,4-Dioxane, 500 µg/mL</i> <i>Diphenyl ether, 500 µg/mL</i> <i>Fluoranthene, 500 µg/mg protein</i> <i>Fluorene, 500 µg/mL</i> <i>Hexachlorobenzene, 50 µg/mL</i> <i>Hexachloro-1,3-butadiene, 100 µg/mL</i> <i>Hexachlorocyclopentadiene, 500 µg/mL</i> <i>Hexachloroethane, 50 µg/mL</i> <i>Hydrazobenzene, 500 µg/mL</i> <i>Indeno[1,2,3-cd]pyrene, 50 µg/mL</i> <i>Isophorone, 500 µg/mL</i> <i>2-Methylnaphthalene, 500 µg/mL</i> <i>Naphthalene, 500 µg/mL</i> <i>2-Nitroaniline, 1000 µg/mL</i> <i>3-Nitroaniline, 1000 µg/mL</i> <i>4-Nitroaniline, 1000 µg/mL</i> <i>Nitrobenzene, 50 µg/mL</i> <i>N-Nitrosodimethylamine, 500 µg/mL</i> <i>N-Nitrosodi-n-propylamine, 50 µg/mL</i> <i>Phenanthrene, 500 µg/mL</i> <i>Pyrene, 500 µg/mg protein</i> <i>Pyridine trifluoroacetate, 500 µg/mL</i> <i>1,2,4-Trichlorobenzene, 50 µg/mL</i>		
EPA 8270 Base Neutral Calibration Mix 2	2000 µg/mL each component in methylene chloride <i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Aniline</i> <i>Anthracene</i> <i>Benz[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl alcohol</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chloroaniline</i> <i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i> <i>2-Chloronaphthalene</i> <i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>Dibenzofuran</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Diethyl phthalate</i>	- 861216	1 mL
	<i>N,N-Dimethylaniline</i> <i>Dimethyl phthalate</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>1,4-Dioxane</i> <i>Diphenyl ether</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Hydrazobenzene</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>2-Methylnaphthalene</i> <i>Naphthalene</i> <i>2-Nitroaniline</i> <i>3-Nitroaniline</i> <i>4-Nitroaniline</i> <i>Nitrobenzene</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Phenanthrene</i> <i>Pyrene</i> <i>Pyridine trifluoroacetate</i> <i>1,2,4-Trichlorobenzene</i>		

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Description	Concentration		Cat. No.	Qty
EPA 8270 Base Neutral Calibration Mix 2 (2nd Lot)	2000 µg/mL each component in methylene chloride	-	861217	5 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Aniline</i> <i>Anthracene</i> <i>Benzo[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl alcohol</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chloroaniline</i> <i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i> <i>2-Chloronaphthalene</i> <i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>Dibenzofuran</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Diethyl phthalate</i>	<i>Dimethylamine</i> <i>Dimethyl phthalate</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>1,4-Dioxane</i> <i>Diphenyl ether</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Hydrazobenzene</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>2-Methylnaphthalene</i> <i>Naphthalene</i> <i>2-Nitroaniline</i> <i>3-Nitroaniline</i> <i>4-Nitroaniline</i> <i>Nitrobenzene</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Phenanthrene</i> <i>Pyrene</i> <i>Pyridine trifluoroacetate</i> <i>1,2,4-Trichlorobenzene</i>		
EPA 8270 Benzidines Mix	2000 µg/mL each component in methanol	-	5507199	1 mL
	<i>Benzidine</i> <i>3,3'-Dichlorobenzidine</i>	<i>o-Tolidine</i>		
Benzidine solution	5000 µg/mL in methanol	-	861221	2 mL
3,3-Dichlorobenzidine (2nd Lot)	5000 µg/mL in methanol	-	861222	2 mL
EPA 8270 Benzidines Mix	2000 µg/mL in methanol	-	48467	1 mL
	<i>Benzidine</i> <i>3,3'-Dichlorobenzidine</i>	<i>3,3'-Dimethylbenzidine</i>		
EPA Chlorinated Hydrocarbon Mix	2000 µg/mL each component in hexane	-	48229	1 mL
	<i>2-Chloronaphthalene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Hexachlorobenzene</i>	<i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>1,2,4,5-Tetrachlorobenzene</i> <i>1,2,4-Trichlorobenzene</i>		
EPA 8270 Chlorinated Hydrocarbons Mix	2000 µg/mL each component in methylene chloride	-	47926	1 mL
	<i>2-Chloronaphthalene</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i>	<i>Hexachloroethane</i> <i>Hexachloropropene</i> <i>Pentachlorobenzene</i> <i>Pentachloroethane</i> <i>1,2,4,5-Tetrachlorobenzene</i> <i>1,2,4-Trichlorobenzene</i>		
EPA 8270 Herbicide Ester Mix	2000 µg/mL each component in hexane	-	48474	1 mL
	<i>2,4-D methyl ester</i>	<i>Silvex® methyl ester</i>		
EPA Haloethers Mix	2000 µg/mL each component in hexane	-	48228-U	1 mL
	<i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>4-Bromodiphenyl ether</i>	<i>4-Chlorodiphenyl ether</i> <i>Bis-(2-chloroisopropyl) ether</i>		
EPA 8270 Ether/Phthalate Mix	2000 µg/mL each component in methylene chloride	-	47643-U	1 mL
	<i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>4-Chlorodiphenyl ether</i>	<i>Bis-(2-chloroisopropyl) ether</i> <i>Dibutyl phthalate</i> <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i> <i>Di-n-octyl phthalate</i>		
EPA Phthalate Esters Mix	2000 µg/mL each component in hexane	SS	48231 458231	1 mL 1 mL
	<i>Bis(2-ethylhexyl) phthalate</i> <i>Benzyl butyl phthalate</i> <i>Dibutyl phthalate</i>	<i>Di-n-octyl phthalate</i> <i>Diethyl phthalate</i> <i>Dimethyl phthalate</i>		
EPA 607 Nitrosamines Mix	2000 µg/mL each component in methanol	-	48240-U	1 mL
	<i>N-Nitrosodimethylamine</i> <i>N-Nitrosodiphenylamine</i>	<i>N-Nitrosodi-n-propylamine</i>		

Environmental Standards

Solid Waste, Groundwater Methods: Resource Conservation and Recovery Act (RCRA) - 8000 Series Methods

Method 8270 (continued)

Description	Concentration		Cat. No.	Qty
EPA 8270 Nitrosamines Mix	2000 µg/mL each component in methanol <i>N</i> -Nitrosodibutylamine <i>N</i> -Nitrosodiethylamine <i>N</i> -Nitrosomethylethylamine	Nitrosomorpholine 1-Nitrosopiperidine 1-Nitrosopyrrolidine	- 48489	1 mL
<i>N</i> -Nitrosodiphenylamine (2nd Lot)	5000 µg/mL in methanol		- 861227	2 mL
EPA Nitroaromatics/Cyclo Ketones Mix	2000 µg/mL each component in hexane: acetone (94:6) 1,3-Dinitrobenzene 2,4-Dinitrotoluene 2,6-Dinitrotoluene	Isophorone 1,4-Naphthoquinone Nitrobenzene	- 48227	1 mL
EPA 8270/Appendix IX Nitrosamines Mix	2000 µg/mL each component in methanol <i>N</i> -Nitrosodibutylamine <i>N</i> -Nitrosodiethylamine <i>N</i> -Nitrosodimethylamine <i>N</i> -Nitrosodiphenylamine <i>N</i> -Nitrosodi- <i>n</i> -propylamine	<i>N</i> -Nitrosomethylethylamine Nitrosomorpholine 1-Nitrosopiperidine 1-Nitrosopyrrolidine	- 502138	1 mL
EPA 8270 Organophosphorus Pesticides Mix	2000 µg/mL each component in hexane: acetone (80:20) Dimethoate Disulfoton Famphur Parathion Parathion-methyl	Phorate Sulfotep Thionazin Triethyl thiophosphate	- 48469	1 mL
EPA 8270 Organophosphorus Pesticide Mix 2	2000 µg/mL each component in methylene chloride Dimethoate Disulfoton Famphur Parathion Parathion-methyl	Phorate Sulfotep Thionazin Triethyl thiophosphate	- 47908	1 mL
EPA TCL Pesticides Mix	2000 µg/mL each component in hexane: toluene (1:1) Aldrin α -BHC β -BHC Lindane δ -BHC 1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane 4,4'-DDE 4,4'-DDT Dieldrin	α -Endosulfan β -Endosulfan Endosulfan sulfate Endrin Endrin aldehyde Endrin ketone Heptachlor Heptachlor <i>exo</i> -epoxide Methoxychlor	SS 458913 48913	1 mL 1 mL
EPA TCL Polynuclear Aromatic Hydrocarbons Mix	2000 µg/mL each component in methylene chloride: benzene (1:1) Acenaphthene Acenaphthylene Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene	Chrysene Dibenz[a,h]anthracene Fluoranthene Fluorene Indeno[1,2,3- <i>cd</i>]pyrene Naphthalene Phenanthrene Pyrene	SS 48905-U 458905	1 mL 1 mL
Chlordane (mixture of isomers)	5000 µg/mL in methanol		- 40089	1 mL

Environmental Standards

Solid Waste, Groundwater Methods: Resource Conservation and Recovery Act (RCRA) - 8000 Series Methods

Description	Concentration		Cat. No.	Qty
EPA 8270 LCS Mix 1	100 µg/mL each component in acetone: methylene chloride (9:1)	-	46853-U	25 mL
	Acenaphthene	1,2-Dinitrobenzene		
	Acenaphthylene	1,3-Dinitrobenzene		
	Aniline	1,4-Dinitrobenzene		
	Anthracene	2,4-Dinitrophenol		
	Azobenzene	2,4-Dinitrotoluene		
	Benz[a]anthracene	2,6-Dinitrotoluene		
	Benzo[b]fluoranthene	Di-n-octyl phthalate		
	Benzo[k]fluoranthene	Fluoranthene		
	Benzo[ghi]perylene	Fluorene		
	Benzoic acid	Hexachlorobenzene		
	Benzo[a]pyrene	Hexachloro-1,3-butadiene		
	Benzyl alcohol	Hexachlorocyclopentadiene		
	Benzyl butyl phthalate	Hexachloroethane		
	Bis(2-chloroethoxy)methane	Indeno[1,2,3-cd]pyrene		
	Bis(2-chloroethyl) ether	Isophorone		
	Bis(2-ethylhexyl) adipate	2-Methyl-4,6-dinitrophenol		
	Bis(2-ethylhexyl) phthalate	1-Methylnaphthalene		
	4-Bromodiphenyl ether	2-Methylnaphthalene		
	Carbazole	o-Cresol		
	4-Chloroaniline	Naphthalene		
	4-Chlorodiphenyl ether	2-Nitroaniline		
	Bis-(2-chloroisopropyl) ether	3-Nitroaniline		
	4-Chloro-3-methylphenol	4-Nitroaniline		
	2-Chloronaphthalene	Nitrobenzene		
	2-Chlorophenol	2-Nitrophenol		
	Chrysene	4-Nitrophenol		
	m-Cresol	N-Nitrosodimethylamine		
	p-Cresol	N-Nitrosodiphenylamine		
	Dibenz[a,h]anthracene	N-Nitrosodi-n-propylamine		
	Dibenzofuran	Pentachlorophenol		
	Dibutyl phthalate	Phenanthrene		
	1,2-Dichlorobenzene	Phenol		
	1,3-Dichlorobenzene	Pyrene		
	1,4-Dichlorobenzene	Pyridine		
	3,3'-Dichlorobenzidine	2,3,4,6-Tetrachlorophenol		
	2,4-Dichlorophenol	2,3,5,6-Tetrachlorophenol		
	Diethyl phthalate	1,2,4-Trichlorobenzene		
	2,4-Dimethylphenol	2,4,5-Trichlorophenol		
	Dimethyl phthalate	2,4,6-Trichlorophenol		
EPA 8270 LCS Mix, High Concentration	200 µg/mL each component in methanol: benzene: methylene chloride (80:1.25:18.75)	-	40032-U	25 mL
	Acenaphthene	Dimethyl phthalate		
	Acenaphthylene	1,2-Dinitrobenzene		
	Aniline	1,3-Dinitrobenzene		
	Anthracene	1,4-Dinitrobenzene		
	Azobenzene	2,4-Dinitrophenol		
	Benz[a]anthracene	2,4-Dinitrotoluene		
	Benzo[b]fluoranthene	2,6-Dinitrotoluene		
	Benzo[k]fluoranthene	Di-n-octyl phthalate		
	Benzo[ghi]perylene	Fluoranthene		
	Benzoic acid	Fluorene		
	Benzo[a]pyrene	Hexachlorobenzene		
	Benzyl alcohol	Hexachloro-1,3-butadiene		
	Benzyl butyl phthalate	Hexachlorocyclopentadiene		
	Bis(2-chloroethoxy)methane	Hexachloroethane		
	Bis(2-chloroethyl) ether	Indeno[1,2,3-cd]pyrene		
	Bis(2-ethylhexyl) adipate	Isophorone		
	Bis(2-ethylhexyl) phthalate	2-Methyl-4,6-dinitrophenol		
	4-Bromodiphenyl ether	1-Methylnaphthalene		
	Carbazole	2-Methylnaphthalene		
	4-Chloroaniline	Naphthalene		
	4-Chlorodiphenyl ether	2-Nitroaniline		
	Bis-(2-chloroisopropyl) ether	3-Nitroaniline		
	4-Chloro-3-methylphenol	4-Nitroaniline		
	2-Chloronaphthalene	Nitrobenzene		
	2-Chlorophenol	2-Nitrophenol		
	Chrysene	4-Nitrophenol		
	m-Cresol	N-Nitrosodimethylamine		
	o-Cresol	N-Nitrosodiphenylamine		
	p-Cresol	N-Nitrosodi-n-propylamine		
	Dibenz[a,h]anthracene	Pentachlorophenol		
	Dibenzofuran	Phenanthrene		
	Dibutyl phthalate	Phenol		
	1,2-Dichlorobenzene	Pyrene		
	1,3-Dichlorobenzene	Pyridine		
	1,4-Dichlorobenzene	2,3,4,6-Tetrachlorophenol		
	3,3'-Dichlorobenzidine	2,3,5,6-Tetrachlorophenol		
	2,4-Dichlorophenol	1,2,4-Trichlorobenzene		
	Diethyl phthalate	2,4,5-Trichlorophenol		
	2,4-Dimethylphenol	2,4,6-Trichlorophenol		
PCB Kit 3	200 µg/mL each component in methanol	-	48825	1 kit
	Aroclor 1016 solution (Supelco 48701), 1 mL	Aroclor 1248 solution (Supelco 48703), 1 mL		
	Aroclor 1221 solution (Supelco 48705), 1 mL	Aroclor 1254 solution (Supelco 48707), 1 mL		
	Aroclor 1232 solution (Supelco 48702), 1 mL	Aroclor 1260 solution (Supelco 48704), 1 mL		
	Aroclor 1242 solution (Supelco 48706), 1 mL			
1,4-Phenylenediamine	20000 µg/mL in methylene chloride	-	861305	1 mL

Environmental Standards

Solid Waste, Groundwater Methods: Resource Conservation and Recovery Act (RCRA) - 8000 Series Methods

Method 8270 (continued)

Description	Concentration	Cat. No.	Qty
EPA TCLP Mix 1	2000 µg/mL each component in methane <i>m</i> -Cresol <i>p</i> -Cresol 2-Methylphenol (Supelco 442361)	- 861426-U	5 × 1 mL
EPA TCLP Mix 2	2000 µg/mL each component in acetone 1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene Hexachloro-1,3-butadiene	- 861427-U	5 × 1 mL
Toxaphene solution	2000 µg/mL in methanol	- 48700-U	1 mL
standard type internal			
EPA 8270 Semivolatile Internal Standards Mix	2000 µg/mL each component in methylene chloride <i>Acenaphthene-d₁₀</i> <i>Chrysene-d₁₂</i> 1,4-Dichlorobenzene- <i>d</i> ₄	- 46955-U 48902 5M07296 46866-U	1 mL 2 × 1 mL 5 × 1 mL 25 mL
EPA 8270 Internal Standard Mix 2	2000 µg/mL each component in methylene chloride: benzene (1:1) <i>Acenaphthene-d₁₀</i> <i>Chrysene-d₁₂</i> 1,4-Dichlorobenzene- <i>d</i> ₄	- 861238	100 mL
standard type surrogate			
EPA 8270 Acids Surrogate Spike Mix	2000 µg/mL each component in methanol 2-Fluorophenol Phenol- <i>d</i> ₆	- 48875 861249	1 mL 100 mL
EPA 8270 Acids Surrogate Spike Mix HC	10,000 µg/mL in methanol 2-Fluorophenol Phenol- <i>d</i> ₆	- 47260-U 861376	1 mL 4 × 5 mL
EPA 8270 Base/Neutrals Surrogate Spike Mix	500 µg/mL each component in methylene chloride 2-Fluorobiphenyl Nitrobenzene- <i>d</i> ₅	- 47417	10 × 1 mL
EPA 8270 Base/Neutrals Surrogate Spike Mix	5000 µg/mL each component in methylene chloride 2-Fluorobiphenyl Nitrobenzene	- 47263 861377	1 mL 5 × 5 mL
EPA 8270 Base-Neutral Surrogate Spike Mix	1000 µg/mL each component in methylene chloride 2-Fluorobiphenyl Nitrobenzene- <i>d</i> ₅	- 48925	1 mL
EPA 8270 Base Neutral Surrogate Mix 1	2000 µg/mL each component in methylene chloride: benzene (1:1) 2-Fluorobiphenyl Nitrobenzene- <i>d</i> ₅	- 861252	100 mL
EPA 8270 Semivolatile Acid/Base Surrogate Spike (Low)	in methanol: methylene chloride (98:2) (varied conc.) 2-Chlorophenol-3,4,5,6- <i>d</i> ₄ , 150 µg/mL 1,2-Dichlorobenzene- <i>d</i> ₄ , 100 µg/mL 2-Fluorobiphenyl, 100 µg/mL 2-Fluorophenol, 150 µg/mL	- 861143	100 mL
EPA 8270 Semivolatile Acid/Base Surrogate Spike (High)	in methylene chloride (varied conc.) 2-Chlorophenol-3,4,5,6- <i>d</i> ₄ , 1500 µg/mL 1,2-Dichlorobenzene- <i>d</i> ₄ , 1000 µg/mL 2-Fluorobiphenyl, 1000 µg/mL 2-Fluorophenol, 1500 µg/mL	- 861142	100 mL
EPA 8270 Surrogate Standard	4000 µg/mL each component in methylene chloride 2-Fluorobiphenyl 2-Fluorophenol Nitrobenzene- <i>d</i> ₅	- 47960-U	1 mL
EPA 8270 Surrogate Standards Mix 1	4000 µg/mL each component in methylene chloride 2-Chlorophenol-3,4,5,6- <i>d</i> ₄ 1,2-Dichlorobenzene- <i>d</i> ₄ 2-Fluorobiphenyl 2-Fluorophenol	- 861155	1 mL
EPA 8080/8270 Pesticide Surrogate Mix	2000 µg/mL each component in hexane: toluene (1:1) Dibutyl chlorendate	- 47903	1 mL

Environmental Standards

Solid Waste, Groundwater Methods: Resource Conservation and Recovery Act (RCRA) - 8000 Series Methods

Description	Concentration		Cat. No.	Qty
standard type matrix spiking				
EPA 8270 Acids Matrix Spiking Solution	1000 µg/mL each component in methanol		- 47423	10 × 1 mL
	4-Chloro-3-methylphenol 2-Chlorophenol 4-Nitrophenol	Pentachlorophenol Phenol		
EPA 8270 Acids Matrix Spiking Solution	2000 µg/mL each component in methanol		- 502308	1 mL
	4-Chloro-3-methylphenol 2-Chlorophenol 4-Nitrophenol	Pentachlorophenol Phenol		
EPA 8270 Base/Neutrals Matrix Spike Mix	500 µg/mL each component in methanol		- 47421	10 × 1 mL
	Acenaphthene 1,4-Dichlorobenzene 2,4-Dinitrotoluene	N-Nitrosodi-n-propylamine Pyrene 1,2,4-Trichlorobenzene		
EPA 8270 Base/Neutrals Matrix Spike Mix	1000 µg/mL each component in methanol		- 502294	1 mL
	Acenaphthene 1,4-Dichlorobenzene 2,4-Dinitrotoluene	N-Nitrosodi-n-propylamine Pyrene 1,2,4-Trichlorobenzene		
EPA 8270 Matrix Spike Mix	in methanol (varied conc.)		- 46854-U	10 mL
	Acenaphthene, 1000 µg/mL 4-Chloro-3-methylphenol, 1500 µg/mL 2-Chlorophenol, 1500 µg/mL 1,4-Dichlorobenzene, 1000 µg/mL 2,4-Dinitrotoluene, 1000 µg/mL 4-Nitrophenol, 1500 µg/mL	N-Nitrosodi-n-propylamine, 1000 µg/mL Pentachlorophenol, 1500 µg/mL Phenol, 1500 µg/mL Pyrene, 1000 µg/mL 1,2,4-Trichlorobenzene, 1000 µg/mL		
standard type performance check				
EPA 8270B System Performance Check Compounds	1000 µg/mL each component in methylene chloride		- 47390-U	1 mL
	2,4-Dinitrophenol Hexachlorocyclopentadiene	4-Nitrophenol N-Nitrosodi-n-propylamine		
EPA 8270A Acids Calibration Check Compounds	2000 µg/mL each component in methylene chloride		SE 47386 457386	1 mL 1 mL
	4-Chloro-3-methylphenol 2,4-Dichlorophenol 2-Nitrophenol	Pentachlorophenol Phenol 2,4,6-Trichlorophenol		
EPA 8270 Base-Neutrals Calibration Check Mix	2000 µg/mL each component in methylene chloride		- 48464	1 mL
	Acenaphthene Benzo[a]pyrene 1,4-Dichlorobenzene Di-n-octyl phthalate	Fluoranthene Hexachloro-1,3-butadiene N-Nitrosodiphenylamine		
standard type tuning solution				
DFTPP solution	1000 µg/mL in acetone		- 47941	1 mL
Decafluorotriphenylphosphine solution	25,000 µg/mL in methylene chloride		- 48724-U	1 mL
EPA 8270 GC-MS Tuning Solution	50 µg/mL in methylene chloride		- 47415	4 × 1 mL
	Benidine 4,4'-DDT	Pentachlorophenol		
EPA 8270 GC-MS Tuning Solution II	1000 µg/mL each component in methylene chloride		- 47548-U	1 mL
	Benidine 4,4'-DDT	Decafluorotriphenylphosphine Pentachlorophenol		
EPA 8270 GC-MS Tuning Solution	50 µg/mL each component in methylene chloride		- 47387	1 mL
	Benidine 4,4'-DDT	Decafluorotriphenylphosphine Pentachlorophenol		

Environmental Standards

Solid Waste, Groundwater Methods: Resource Conservation and Recovery Act (RCRA) - 8000 Series Methods

Method 8310

Description	Concentration	Cat. No.	Qty	
standard type calibration				
EPA TCL PAH Mix	in acetonitrile: methanol (9:1) (varied) <i>Acenaphthene, 1000 µg/mL</i> <i>Acenaphthylene, 500 µg/mL</i> <i>Anthracene, 20 µg/mL</i> <i>Benz[a]anthracene, 50 µg/mL</i> <i>Benzo[b]fluoranthene, 20 µg/mL</i> <i>Benzo[k]fluoranthene, 20 µg/mL</i> <i>Benzo[ghi]perylene, 80 µg/mL</i> <i>Benzo[a]pyrene, 50 µg/mL</i>	<i>Chrysene, 50 µg/mL</i> <i>Dibenz[a,h]anthracene, 200 µg/mL</i> <i>Fluoranthene, 50 µg/mL</i> <i>Fluorene, 100 µg/mL</i> <i>Indeno[1,2,3-cd]pyrene, 50 µg/mL</i> <i>Naphthalene, 500 µg/mL</i> <i>Phenanthrene, 40 µg/mL</i> <i>Pyrene, 100 µg/mL</i>	49156	1 mL
EPA 8310 Polynuclear Aromatic Hydrocarbons Mix	2000 µg/mL each component in methylene chloride: benzene (1:1) <i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Benz[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Chrysene</i>	<i>Dibenz[a,h]anthracene</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>1-Methylnaphthalene</i> <i>2-Methylnaphthalene</i> <i>Naphthalene</i> <i>Phenanthrene</i> <i>Pyrene</i>	47543-U	1 mL
standard type surrogate				
Decachlorobiphenyl solution	200 µg/mL in acetone	48318	1 mL	

Method 8330

For a more complete listing of calibration standards to monitor for energetics residue, please visit our sister company, Sigma-Aldrich Cerilliant at cerilliant.com .

Description	Concentration	Cat. No.	Qty	
standard type calibration				
EPA 8330 Mix A	100 µg/mL each component in acetonitrile <i>2-Amino-4,6-dinitrotoluene</i> <i>1,3-Dinitrobenzene</i> <i>2,4-Dinitrotoluene</i> <i>HMX</i>	<i>Nitrobenzene</i> <i>RDX</i> <i>1,3,5-Trinitrobenzene</i> <i>2,4,6-Trinitrotoluene</i>	47283	1 mL
EPA 8330 Mix B	100 µg/mL in acetonitrile <i>4-Amino-2,6-dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>2-Nitrotoluene</i>	<i>3-Nitrotoluene</i> <i>4-Nitrotoluene</i> <i>Tetryl</i>	47284	1 mL
2-Amino-4,6-dinitrotoluene solution	1000 µg/mL in acetonitrile		47749-U	1 mL
4-Amino-2,6-dinitrotoluene solution	1000 µg/mL in acetonitrile		47750	1 mL
1,3-Dinitrobenzene solution	1000 µg/mL in acetonitrile		47746-U	1 mL
2,4-Dinitrotoluene solution	1000 µg/mL in acetonitrile		47747	1 mL
2,6-Dinitrotoluene solution	1000 µg/mL in acetonitrile		47748-U	1 mL
Nitrobenzene solution	1000 µg/mL in acetonitrile		47239	1 mL
3-Nitrotoluene solution	1000 µg/mL in acetonitrile		47241	1 mL
4-Nitrotoluene solution	1000 µg/mL in acetonitrile		47242	1 mL
1,3,5-Trinitrobenzene solution	1000 µg/mL in acetonitrile		47243	1 mL

CLP Standards

US EPA Contract Laboratory Program Methods

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Superfund Act.

US EPA Contract Laboratory Program (CLP) methods are analytical methods for identifying and quantifying organic compounds on the EPA's Target Compound List (TCL) in groundwater, sediment, and soil samples at abandoned hazardous waste sites.

The following analytical reference standards are specifically designed for monitoring organic chemicals on the US EPA's Target Compound List in water, sediment or soil from hazardous waste sites, per methods developed by the Environmental Monitoring Systems Laboratory in Las Vegas (EMSL-LV), under authority of the Superfund Amendments Reauthorization Act (SARA).

Data Packets – Free of Charge

Our data packets meet US EPA requirements specified in the March 1990 and subsequent CLP Statements of Work. Each packet documents the rigorous analytical methods we use to verify a raw material's identity and purity, and provides certification as to purity and final concentration accuracy. All data packets are free of charge.

Environmental Standards

CLP Standards: U.S. EPA Contract Laboratory Programs Methods

U.S. EPA Contract Laboratory Programs Methods

OLM04 Statement of Work

Description	Concentration	Cat. No.	Qty
standard type calibration			
EPA CLP Volatile Mix 1	1000 µg/mL in methanol: water (19:1)	47547-U	1 mL
	<i>Acetone</i> <i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Bromomethane</i> <i>2-Butanone</i> <i>Carbon disulfide</i> <i>Carbon tetrachloride</i> <i>Chlorobenzene</i> <i>Chloroethane</i> <i>Chloroform</i> <i>Chloromethane</i> <i>Dibromochloromethane</i> <i>1,1-Dichloroethane</i> <i>1,2-Dichloroethane</i> <i>1,1-Dichloroethylene</i> <i>cis-1,2-Dichloroethylene</i> <i>trans-1,2-Dichloroethylene</i>	<i>Dichloromethane</i> <i>1,2-Dichloropropane</i> <i>cis-1,3-Dichloropropene</i> <i>trans-1,3-Dichloropropene</i> <i>Ethylbenzene</i> <i>2-Hexanone</i> <i>4-Methyl-2-pentanone</i> <i>Styrene</i> <i>1,1,2,2-Tetrachloroethane</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,1,1-Trichloroethane</i> <i>1,1,2-Trichloroethane</i> <i>Trichloroethylene</i> <i>Vinyl chloride</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	
EPA CLP SOW OLM04 Volatiles Mix	2000 µg/mL each component in methanol	47513-U	1 mL
	<i>tert-Butyl methyl ether</i> <i>Cyclohexane</i> <i>1,2-Dibromo-3-chloropropane</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i>	<i>Dichlorodifluoromethane</i> <i>Isopropylbenzene (cumene)</i> <i>Methyl acetate</i> <i>Methylcyclohexane</i> <i>1,2,4-Trichlorobenzene</i> <i>Trichlorofluoromethane</i> <i>1,1,2-Trichloro-1,2,2-trifluoroethane</i>	
EPA CLP Semivolatile Calibration Mix	1000 µg/mL each component in methylene chloride: benzene (3:1)	5506508 506508	1 mL 1 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Azobenzene</i> <i>Benz[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i> <i>Benzyl butyl phthalate</i> <i>Bis(2-chloroethoxy)methane</i> <i>Bis(2-chloroethyl) ether</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>4-Bromodiphenyl ether</i> <i>Carbazole</i> <i>4-Chloroaniline</i> <i>4-Chlorodiphenyl ether</i> <i>Bis(2-chloroisopropyl) ether</i> <i>4-Chloro-3-methylphenol</i> <i>2-Chloronaphthalene</i> <i>2-Chlorophenol</i> <i>Chrysene</i> <i>p-Cresol</i> <i>Dibenz[a,h]anthracene</i> <i>Dibenzofuran</i> <i>Dibutyl phthalate</i> <i>1,2-Dichlorobenzene</i> <i>1,3-Dichlorobenzene</i> <i>1,4-Dichlorobenzene</i> <i>2,4-Dichlorophenol</i> <i>Diethyl phthalate</i> <i>2,4-Dimethylphenol</i>	<i>Dimethyl phthalate</i> <i>2,4-Dinitrophenol</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i> <i>Di-n-octyl phthalate</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Isophorone</i> <i>2-Methyl-4,6-dinitrophenol</i> <i>2-Methylnaphthalene</i> <i>o-Cresol</i> <i>Naphthalene</i> <i>2-Nitroaniline</i> <i>3-Nitroaniline</i> <i>4-Nitroaniline</i> <i>Nitrobenzene</i> <i>2-Nitrophenol</i> <i>4-Nitrophenol</i> <i>N-Nitrosodimethylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Pentachlorophenol</i> <i>Phenanthrene</i> <i>Phenol</i> <i>Pyrene</i> <i>1,2,4-Trichlorobenzene</i> <i>2,4,5-Trichlorophenol</i> <i>2,4,6-Trichlorophenol</i>	
3,3'-Dichlorobenzidine solution	2000 µg/mL in methanol	48029	1 mL
N-Nitrosodiphenylamine solution	5000 µg/mL in methanol	40060	1 mL
EPA CLP SOW OLM04 Semi-Volatile Mix solution	2000 µg/mL each component in methylene chloride	47514-U 457514-U	1 mL 1 mL
	<i>Acetaphenone</i> <i>Atrazine</i> <i>Benzaldehyde</i>	<i>Biphenyl</i> <i>ε-Caprolactam</i>	
EPA OLM04 Pesticide Standard Mix A-1	in hexane: toluene (99:1) (varied)	47977	1 mL
	<i>α-BHC</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane,</i> <i>1 µg/mL</i> <i>4,4'-DDT, 1 µg/mL</i> <i>Decachlorobiphenyl, 1 µg/mL</i> <i>Dieldrin, 1 µg/mL</i> <i>α-Endosulfan, .5 µg/mL</i>	<i>Endrin, 1 µg/mL</i> <i>Heptachlor, .5 µg/mL</i> <i>Lindane, .5 µg/mL</i> <i>Methoxychlor, 5 µg/mL</i> <i>2,4,5,6-Tetrachloro-m-xylene, .5 µg/mL</i>	

Environmental Standards

CLP Standards: U.S. EPA Contract Laboratory Programs Methods

OLMO4 Statement of Work (continued)

Description	Concentration	Cat. No.	Qty	
EPA OLMO4 Pesticide Standard Mix B-1	in hexane: toluene (99.5:0.5) (varied) <i>Aldrin, .5 µg/mL</i> <i>β-BHC</i> <i>δ-BHC</i> <i>α-Chlordane, .5 µg/mL</i> <i>γ-Chlordane, .5 µg/mL</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene, 1 µg/mL</i> <i>Decachlorobiphenyl, 1 µg/mL</i>	<i>β-Endosulfan, 1 µg/mL</i> <i>Endosulfan sulfate, 1 µg/mL</i> <i>Endrin aldehyde, 1 µg/mL</i> <i>Endrin ketone, 1 µg/mL</i> <i>Heptachlor exo-epoxide, .5 µg/mL</i> <i>2,4,5,6-Tetrachloro-m-xylene, .5 µg/mL</i>	47978	1 mL
Toxaphene solution	1000 µg/mL in isooctane	48103	1 mL	
Aroclor 1016 solution	1000 µg/mL in isooctane	458097 48097	1 mL 1 mL	
Aroclor 1221 solution	1000 µg/mL in isooctane	458098 48098	1 mL 1 mL	
Aroclor 1232 solution	1000 µg/mL in isooctane	44805 454805	1 mL 1 mL	
Aroclor 1242 solution	1000 µg/mL in isooctane	44806 454806	1 mL 1 mL	
Aroclor 1248 solution	1000 µg/mL in isooctane	454807 44807	1 mL 1 mL	
Aroclor 1254 solution	1000 µg/mL in isooctane	454808 44808	1 mL 1 mL	
Aroclor 1260 solution	1000 µg/mL in isooctane	44809 454809	1 mL 1 mL	
standard type internal				
EPA 8240/8260 VOA Internal Standards Mix	1000 µg/mL each component in methanol <i>Bromochloromethane</i> <i>Chlorobenzene-d₅</i>	<i>1,4-Difluorobenzene</i>	48835 1 mL	
standard type surrogate				
EPA 8240/8260 VOA Surrogate Spike Mix	1000 µg/mL each component in methanol <i>4-Bromofluorobenzene</i> <i>1,2-Dichloroethane-d₄</i>	<i>Toluene-d₈</i>	48101 1 mL	
EPA CLP Semivolatiles Surrogate Standards Mix	4000 µg/mL each component in methylene chloride <i>2-Chlorophenol-3,4,5,6-d₄</i> <i>1,2-Dichlorobenzene-d₄</i> <i>2-Fluorobiphenyl</i> <i>2-Fluorophenol</i>	<i>Nitrobenzene-d₅</i> <i>Phenol-d₆</i> <i>p-Terphenyl-d₁₄</i> <i>2,4,6-Tribromophenol</i>	46824-U 1 mL	
Pesticide Surrogate Spike Mix	200 µg/mL each component in acetone <i>Decachlorobiphenyl</i>	<i>2,4,5,6-Tetrachloro-m-xylene</i>	48460 1 mL	
standard type check mix				
Pesticide Resolution Check Mix-A	in hexane: toluene (99:1) (varied) <i>γ-Chlordane, 1 µg/mL</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene, 2 µg/mL</i> <i>Decachlorobiphenyl, 2 µg/mL</i> <i>Dieldrin, 2 µg/mL</i> <i>α-Endosulfan, 1 µg/mL</i>	<i>Endosulfan sulfate, 2 µg/mL</i> <i>Endrin ketone, 2 µg/mL</i> <i>Methoxychlor, 10 µg/mL</i> <i>2,4,5,6-Tetrachloro-m-xylene, 2 µg/mL</i>	47976 1 mL	

UST/GRO/DRO

Supelco offers the following stock standards for use in Underground Storage Tank (UST) remediation, Gasoline Range Organics (GRO) analyses and Diesel Range Organics (DRO) analyses. Individual fuel standards can be used for fingerprint analyses. State-specific Total Petroleum Hydrocarbon (TPH)/Extractable Petroleum Hydrocarbon (EPH) standards are also available for your convenience. Custom mixes are available through our Custom Chemical Service.

BTEX Standards

standard type calibration

Description	Concentration	Cat. No.	Qty
standard type calibration			
BTEX Mix, Underground Storage Tank	200 µg/mL each component in methanol <i>Benzene</i> <i>Ethylbenzene</i> <i>Toluene</i>	<i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	- CRM48026 1 pkg
BTEX Mix, HC	2000 µg/mL each component in methanol <i>Benzene</i> <i>Ethylbenzene</i> <i>tert-Butyl methyl ether</i> <i>Toluene</i>	<i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	- CRM47993 1 pkg

Environmental Standards

UST/GRO/DRO

Description	Concentration		Cat. No.	Qty
BTEX/MTBE Mix, HC	2000 µg/mL each component in methanol Benzene Toluene Ethylbenzene o-Xylene	m-Xylene p-Xylene tert-Butyl methyl ether	CRM47505	1 pkg

Gasoline Range Organics (GRO) Standards

Description	Concentration		Cat. No.	Qty
standard type calibration				
Gasoline Additives Mix	200 µg/mL each component in methanol tert-Butyl methyl ether 1,2-Dibromoethane	Dibromomethane 1,2-Dichloroethane	47905	1 mL
GRO Mix	2000 µg/mL each component in methanol Benzene Ethylbenzene 3-Methylpentane Naphthalene Toluene	1,2,4-Trimethylbenzene 2,2,4-Trimethylpentane o-Xylene m-Xylene	47576-U	1 mL
PVOC Mix	2000 µg/mL each component in methanol Benzene tert-Butyl methyl ether Ethylbenzene Toluene	1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene (Mesitylene) m-Xylene	47916	1 mL
EPA GRO Mix	in methanol (varied) Benzene, 500 µg/mL Ethylbenzene, 500 µg/mL Heptane, 500 µg/mL 2-Methylpentane, 1500 µg/mL Toluene, 1500 µg/mL	1,2,4-Trimethylbenzene, 1000 µg/mL 2,2,4-Trimethylpentane, 1500 µg/mL o-Xylene, 1000 µg/mL m-Xylene, 1000 µg/mL	47577-U	1 mL
Underground Storage Tank (UST) Modified GRO	1000 µg/mL each component in methanol Benzene tert-Butyl methyl ether Ethylbenzene Naphthalene Toluene	1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene o-Xylene m-Xylene p-Xylene	48167	1 mL
standard type surrogate				
α,α-Trifluorotoluene solution	10,000 µg/mL in methanol		47582-U	1 mL
standard type internal				
1-Chloro-4-fluorobenzene solution	5000 µg/mL in methanol		48194	1 mL

Diesel Range Organics (DRO) Standards

Description	Concentration		Cat. No.	Qty
standard type calibration				
DRO Calibration Mix	500 µg/mL each component in hexane Chlorobenzene Decane Docosane Dodecane Eicosane Hexacosane	Hexadecane Octacosane Octadecane o-Terphenyl Tetracosane Tetradecane	861287	5 mL
Underground Storage Tank (UST) Modified DRO	1000 µg/mL each component in hexane Decane Docosane Dodecane Eicosane Hexacosane	Hexadecane Octacosane Octadecane Tetracosane Tetradecane	48166	1 mL
standard type internal/surrogate				
1-Chlorooctadecane	10000 µg/mL in methylene chloride		47584-U	1 mL
standard type internal				
5-α-Androstane solution	2000 µg/mL in methylene chloride		48168	1 mL
standard type surrogate				
2-Fluorobiphenyl solution	10,000 µg/mL in methylene chloride		47581-U	1 mL
o-Terphenyl solution	2000 µg/mL in acetone		48169	1 mL
o-Terphenyl solution	10000 µg/mL in methylene chloride		47580-U	1 mL

Environmental Standards

UST/GRO/DRO

Individual Fuel Standards

Description	Concentration	Cat. No.	Qty
standard type calibration			
Aviation Gasoline	20,000 µg/mL in methanol	47531-U	1 mL
Gasoline, premium unleaded	20,000 µg/mL in methanol	47516-U	1 mL
Jet (Turbine) Fuel solution	20,000 µg/mL in methanol	47533-U	1 mL
JP-4 Military Fuel Standard	10,000 µg/mL in methylene chloride	47585-U	1 mL
JP-5 Military Fuel Standard	10,000 µg/mL in methylene chloride	47586-U	1 mL
JP-8 Military Fuel Standard	10,000 µg/mL in methylene chloride	47587-U	1 mL
Kerosene Reference Standard	50,000 µg/mL in hexane	47517-U	1 mL
No. 1 Fuel Oil	20,000 µg/mL in methanol	47518-U	1 mL
No. 2 Fuel Oil	20,000 µg/mL in methanol	47515-U	1 mL
No. 3 Fuel Oil	50,000 µg/mL in hexane	47534-U	1 mL
No. 4 Fuel Oil	50,000 µg/mL in hexane	47535-U	1 mL
No. 6 Fuel Oil	20,000 µg/mL in hexane: chloroform (1:1)	47536-U	1 mL

State-Specific Petroleum Method Standards


Description	Concentration	Cat. No.	Qty
standard type calibration			
Connecticut <i>n</i> -Hydrocarbon Mix	1000 µg/mL each component in methylene chloride: carbon disulfide 85:15 <i>Decane</i> <i>Docosane</i> <i>Dodecane</i> <i>Dotriacontane</i> <i>Eicosane</i> <i>Hexacosane</i> <i>Hexadecane</i> <i>Hexatriacontane</i>	<i>Nonane</i> <i>Octacosane</i> <i>Octadecane</i> <i>Tetracosane</i> <i>Tetradecane</i> <i>Tetraatriacontane</i> <i>Triacontane</i>	46827-U 1 mL
Florida <i>n</i> -Hydrocarbon Mix	1000 µg/mL each component in methylene chloride: carbon disulfide (1:1) <i>Decane</i> <i>Docosane</i> <i>Dodecane</i> <i>Dotriacontane</i> <i>Eicosane</i> <i>Hexacosane</i> <i>Hexadecane</i> <i>Hexatriacontane</i> <i>Octacosane</i>	<i>Octadecane</i> <i>Octane</i> <i>Octatriacontane</i> <i>Tetracontane</i> <i>Tetracosane</i> <i>Tetradecane</i> <i>Tetraatriacontane</i> <i>Triacontane</i>	46855-U 1 mL
PA DEP UST Standard	2000 µg/mL in methanol <i>Benzene</i> <i>1,2-Dibromoethane</i> <i>1,2-Dichloroethane</i> <i>Ethylbenzene</i> <i>Cumene</i> <i>tert-Butyl methyl ether</i>	<i>Naphthalene</i> <i>Toluene</i> <i>m-Xylene</i> <i>o-Xylene</i> <i>p-Xylene</i>	44686-U 1 mL
Total Petroleum Hydrocarbons (TPH) Mixture 3	1000 µg/mL each component in carbon disulfide <i>Decane</i> <i>Dodecane</i> <i>Dotriacontane</i> <i>Eicosane</i> <i>Heptane</i> <i>Hexadecane</i> <i>Hexane</i> <i>Hexatriacontane</i> <i>Nonane</i>	<i>Octacosane</i> <i>Octadecane</i> <i>Octane</i> <i>Tetracontane</i> <i>Tetracosane</i> <i>Tetradecane</i> <i>Tetraatriacontane</i> <i>Undecane</i>	8561394-U 861394-U 1 mL 1 mL

Related DRO Hydrocarbon Standards

Description	Concentration	Cat. No.	Qty
standard type calibration			
Total Petroleum Hydrocarbons (TPH) Mixture 1	2000 µg/mL each component in hexane: methylene chloride (1:1) <i>Decane</i> <i>Docosane</i> <i>Dodecane</i> <i>Eicosane</i> <i>Hexacosane</i>	<i>Hexadecane</i> <i>Octacosane</i> <i>Octadecane</i> <i>Tetracosane</i> <i>Tetradecane</i>	- 861424-U 1 mL

Environmental Standards

UST/GRO/DRO

Description	Concentration		Cat. No.	Qty
Total Petroleum Hydrocarbons (TPH) Mixture 3	1000 µg/mL each component in carbon disulfide		8561394-U 861394-U	1 mL 1 mL
	<i>Decane</i>	<i>Octacosane</i>		
	<i>Dodecane</i>	<i>Octadecane</i>		
	<i>Dotriacontane</i>	<i>Octane</i>		
	<i>Eicosane</i>	<i>Tetracontane</i>		
	<i>Heptane</i>	<i>Tetracosane</i>		
	<i>Hexadecane</i>	<i>Tetradecane</i>		
	<i>Hexane</i>	<i>Tetratetracontane</i>		
	<i>Hexatriacontane</i>	<i>Undecane</i>		
	<i>Nonane</i>			

Flame Retardant Standards

Fluka flame retardant standards are ideally suited for GC and GC/MS analyses. The standards are prepared from raw materials having a minimum purity >98% and, then assayed to verify concentration. A certificate of analysis is supplied with each standard. Shelf life is three years from the date of manufacture.

CAS No.	Compound	Concentration	Cat. No.	Qty
101-55-3	BDE No 3 solution	50 µg/mL in isooctane	33661-1ML	1 mL
2050-47-7	BDE No 15 solution	50 µg/mL in isooctane	33662-1ML	1 mL
41318-75-6	BDE No 28 solution	50 µg/mL in isooctane	33663-1ML	1 mL
147217-79-6	BDE No 36 solution	50 µg/mL in isooctane	33664-1ML	1 mL
147217-81-0	BDE No 37 solution	50 µg/mL in isooctane	34123-1ML	1 mL
5436-43-1	BDE No 47 solution	50 µg/mL in isooctane	33670-1ML	1 mL
243982-82-3	BDE No 49 solution	50 µg/mL in isooctane	33671-1ML	1 mL
189084-61-5	BDE No 66 solution	50 µg/mL in isooctane	34119-1ML	1 mL
189084-62-6	BDE No 71 solution	50 µg/mL in isooctane	34118-1ML	1 mL
189084-63-7	BDE No 75 solution	50 µg/mL in isooctane	34116-1ML	1 mL
93703-48-1	BDE No 77 solution	50 µg/mL in isooctane	34115-1ML	1 mL
182346-21-0	BDE No 85 solution	50 µg/mL in isooctane	34114-1ML	1 mL
60348-60-9	BDE No 99 solution	50 µg/mL in isooctane	33676-1ML	1 mL
189084-64-8	BDE No 100 solution	50 µg/mL in isooctane	33681-1ML	1 mL
189084-66-0	BDE No 119 solution	50 µg/mL in isooctane	34121-1ML	1 mL
366791-32-4	BDE No 126 solution	50 µg/mL in isooctane	33682-1ML	1 mL
182677-30-1	BDE No 138 solution	50 µg/mL in isooctane	34122-1ML	1 mL
68631-49-2	BDE No 153 solution	50 µg/mL in isooctane	33683-1ML	1 mL
207122-15-4	BDE No 154 solution	50 µg/mL in isooctane	33684-1ML	1 mL
189084-67-1	BDE No 181 solution	50 µg/mL in isooctane	33685-1ML	1 mL
207122-16-5	BDE No 183 solution	50 µg/mL in isooctane	33686-1ML	1 mL
337513-72-1	BDE No 203 solution	50 µg/mL in isooctane	33687-1ML	1 mL
446255-56-7	BDE No 205 solution	50 µg/mL in isooctane	33688-1ML	1 mL
63387-28-0	BDE No 206 solution	50 µg/mL in isooctane	33689-1ML	1 mL
1163-19-5	BDE No 209 solution	50 µg/mL in isooctane:toluene (9:1)	34120-1ML	1 mL

PCB Standards

Description	Concentration		Cat. No.	Qty
PCB No 1	-	-	35586-100MG	100 mg
PCB No 5	-	-	35588-100MG	100 mg
PCB No 31	-	-	36679-10MG-R	10 mg
PCB No 32	-	-	34158-10MG	10 mg
PCB No 33	-	-	34159-10MG	10 mg
PCB No 44	-	-	33702-10MG	10 mg
PCB No 63	-	-	34160-10MG	10 mg
PCB No 70	-	-	34199-10MG	10 mg
PCB No 151	-	-	34156-10MG	10 mg
PCB No 153	-	-	35602-10MG 35602-1G	10 mg 1 g
PCB No 153 solution	10 ng/µL in isooctane	-	36904-2ML	2 mL
PCB No 156 solution	100 ng/µL in hexane	-	33710-2ML	2 mL
PCB No 174	-	-	34157-10MG	10 mg

Environmental Standards

PCB Standards

Description	Concentration		Cat. No.	Qty
standard type calibration				
PCB kit - high conc.	1000 µg/mL in isoctane (each solution) <i>Aroclor 1232 solution (Supelco 44805), 1 mL</i> <i>Aroclor 1242 solution (Supelco 44806), 1 mL</i> <i>Aroclor 1248 solution (Supelco 44807), 1 mL</i>	- <i>Aroclor 1254 solution (Supelco 44808), 1 mL</i> <i>Aroclor 1260 solution (Supelco 44809), 1 mL</i> <i>Aroclor 1262 solution (Supelco 44810), 1 mL</i>	44803	1 kit
PCB kit - low conc.	1 µg/mL in isoctane <i>Aroclor 1232 solution (Supelco 44811), 1 mL</i> <i>Aroclor 1242 solution (Supelco 44812), 1 mL</i> <i>Aroclor 1248 solution (Supelco 44813), 1 mL</i>	- <i>Aroclor 1254 solution (Supelco 44814), 1 mL</i> <i>Aroclor 1260 solution (Supelco 44815), 1 mL</i> <i>Aroclor 1262 solution (Supelco 44816), 1 mL</i>	44804	1 kit
PCB Congener Mix 1	10 µg/mL each component in isoctane <i>2,6-Dichlorobiphenyl</i> <i>2,2',3,4,4',5,5'-Heptachlorobiphenyl</i> <i>2,2',3,4,4',5'-Hexachlorobiphenyl</i>	- <i>2,2',4,4',5,5'-Hexachlorobiphenyl</i> <i>2,2',5,5'-Tetrachlorobiphenyl</i> <i>2,4,4'-Trichlorobiphenyl</i>	47330-U	10 mL
CEN PCB Congener Mix-1	10 µg/mL each component in heptane <i>2,2',3,4,4',5,5'-Heptachlorobiphenyl</i> <i>2,2',3,4,4',5'-Hexachlorobiphenyl</i> <i>2,2',3,4,4',5,6-Hexachlorobiphenyl</i> <i>2,2',4,4',5,5'-Hexachlorobiphenyl</i> <i>2,2',3,3',4,4',5,5'-Octachlorobiphenyl</i> <i>2,2',4,5,5'-Pentachlorobiphenyl</i>	- <i>2,3',4,4',5-Pentachlorobiphenyl</i> <i>2,2',3,5'-Tetrachlorobiphenyl</i> <i>2,2',5,5'-Tetrachlorobiphenyl</i> <i>2,2',5-Trichlorobiphenyl</i> <i>2,4,4'-Trichlorobiphenyl</i> <i>2,4',5-Trichlorobiphenyl</i>	47927	1 mL
Pesticide-HC Calibration Standards Kit	- <i>Aroclor 1016 solution (48097), 1 mL</i> <i>Aroclor 1221 solution (48098), 1 mL</i> <i>Aroclor 1232 solution (44805), 1 mL</i> <i>Aroclor 1242 solution (44806), 1 mL</i> <i>Aroclor 1248 solution (44807), 1 mL</i> <i>Aroclor 1254 solution (44808), 1 mL</i>	- <i>Aroclor 1260 solution(44809), 1 mL</i> <i>Aroclor 1262 solution (44810), 1 mL</i> <i>Chlordane (48065-U), 1 mL</i> <i>TCL Pesticides Mix (48913), 1 mL</i> <i>Toxaphene (48103), 1 mL</i>	48114	1 kit
DCMA PCB Mixture	in hexane (varied) <i>2-Chlorobiphenyl, 100 µg/mL</i> <i>Decachlorobiphenyl, 5 µg/mL</i> <i>3,3'-Dichlorobiphenyl, 100 µg/mL</i> <i>2,2',3,4',5,5',6-Heptachlorobiphenyl, 5 µg/mL</i> <i>2,2',3,3',6,6'-Hexachlorobiphenyl, 10 µg/mL</i>	- <i>2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl, 5 µg/mL</i> <i>2,2',3,3',4,4',5,5'-Octachlorobiphenyl, 5 µg/mL</i> <i>2,3',4,5',6-Pentachlorobiphenyl, 10 µg/mL</i> <i>2,2',4,4'-Tetrachlorobiphenyl, 10 µg/mL</i> <i>2,4,5-Trichlorobiphenyl, 10 µg/mL</i>	48596-U	2 × 5 mL
Aroclor 1016 solution	200 µg/mL in methanol	-	48701	1 mL
Aroclor 1016 solution	1000 µg/mL in isoctane	SS	458097 48097	1 mL 1 mL
Aroclor 1221 solution	200 µg/mL in methanol	-	48705	1 mL
Aroclor 1221 solution	1000 µg/mL in isoctane	SS	458098 48098	1 mL 1 mL
Aroclor 1232 solution	200 µg/mL in methanol	-	48702	1 mL
Aroclor 1232 solution	1000 µg/mL in isoctane	SS	44805 454805	1 mL 1 mL
Aroclor 1242 solution	200 µg/mL in methanol	-	48706	1 mL
Aroclor 1242 solution	1000 µg/mL in isoctane	SS	44806 454806	1 mL 1 mL
Aroclor 1248 solution	200 µg/mL in methanol	-	48703	1 mL
Aroclor 1248 solution	1000 µg/mL in isoctane	SS	454807 44807	1 mL 1 mL
Aroclor 1254 solution	200 µg/mL in methanol	-	48707	1 mL
Aroclor 1254 solution	1000 µg/mL in isoctane	SS	454808 44808	1 mL 1 mL
Aroclor 1260 solution	200 µg/mL in methanol	-	48704	1 mL
Aroclor 1262 solution	1000 µg/mL in isoctane	SS	44810 454810	1 mL 1 mL
Aroclor 1268 solution	1000 µg/mL in isoctane	SS	5502146 502146	1 mL 1 mL
PCB Kit 3	200 µg/mL each component in methanol <i>Aroclor 1016 solution (Supelco 48701), 1 mL</i> <i>Aroclor 1221 solution (Supelco 48705), 1 mL</i> <i>Aroclor 1232 solution (Supelco 48702), 1 mL</i> <i>Aroclor 1242 solution (Supelco 48706), 1 mL</i>	- <i>Aroclor 1248 solution (Supelco 48703), 1 mL</i> <i>Aroclor 1254 solution (Supelco 48707), 1 mL</i> <i>Aroclor 1260 solution (Supelco 48704), 1 mL</i>	48825	1 kit
Aroclor Mix 1	200 µg/mL each component in methanol <i>Aroclor 1016</i> <i>Aroclor 1232</i>	- <i>Aroclor 1248</i> <i>Aroclor 1260</i>	48861	1 mL
Aroclor Mix 2	200 µg/mL each component in methanol <i>Aroclor 1221</i> <i>Aroclor 1242</i>	- <i>Aroclor 1254</i>	48862	1 mL
Transformer oil (PCB free)	-	-	46956 40900-U	10 × 5 mL 250 mL

Environmental Standards

Pesticide Mixtures

Pesticide Mixtures

Description	Concentration	Cat. No.	Qty
standard type calibration			
Triazine Pesticides Standards Mix	100 µg/mL each component in methanol <i>Ametryn</i> <i>Atrazine</i> <i>Prometon</i> <i>Prometryn</i>	<i>Propazine</i> <i>Simazine</i> <i>Terbutryn</i>	CRM48392 1 pkg
Organophosphorus Pesticides Mix A	2000 µg/mL each component in hexane: acetone (9:1) <i>Azinphos-methyl</i> <i>Chlorpyrifos</i> <i>Dichlorvos</i> <i>Disulfoton</i>	<i>Ethoprophos</i> <i>Fenchlorphos</i> <i>Parathion-methyl</i> <i>Prothiofos</i>	48391 1 mL
OP Pesticide Spike Mix	1000 µg/mL each component in acetone <i>Azinphos-methyl</i> <i>Demeton O&S</i> <i>Diazinon</i> <i>Disulfoton</i>	<i>Fenthion</i> <i>Malathion</i> <i>Parathion</i> <i>Parathion-methyl</i>	8561268 1 mL
Chlorinated Pesticides Mix	- <i>Aldrin, 50 µg/mL</i> <i>α-BHC</i> <i>β-BHC</i> <i>1-(2-Chlorophenyl)-1-(4-chlorophenyl)-2,2-dichloroethane, 200 µg/mL</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane, 190 µg/mL</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethene, 100 µg/mL</i> <i>2,4'-DDT, 225 µg/mL</i>	<i>4,4'-DDT, 260 µg/mL</i> <i>Dieldrin, 120 µg/mL</i> <i>Endrin, 200 µg/mL</i> <i>Heptachlor, 25 µg/mL</i> <i>Heptachlor exo-epoxide, 80 µg/mL</i> <i>Lindane, 25 µg/mL</i>	47557-U 49151 1 mL 5 × 1 mL

Pesticide Neats and Solutions

Our extensive line of pesticide and pesticide metabolites includes 1500+ Fluka PESTANAL® standards for environmental and food residue analyses. We also offer several ChemService reference materials for analysts requiring a separate (second) source standard. Listed below are some of the many pesticide standards we have in stock, ready to ship when you need them. Because this line continues to grow at a rapid pace, we recommend you visit sigmaaldrich.com/analyticalstandards to view the most current offerings.

Description	Concentration	Cat. No.	Qty
Abamectin	-	- 31732-100MG	100 mg
Abamectin	-	- N10995-100MG	100 mg
Acephate	-	- N11002-250MG	250 mg
Acephate	-	- 45315-250MG	250 mg
Acephate solution	100 ng/µL in acetonitrile	- 36992-10ML	10 mL
Acequinocyl	-	- 32527-50MG	50 mg
Acetaldehyde	-	- 506788	1000 mg
Acetamidrid	-	- 33674-100MG-R	100 mg
Acetamidrid-d ₃	-	- 39246-50MG	50 mg
Acetamidride- <i>o</i> -desmethyl	-	- 32979-10MG	10 mg
Acetochlor	-	- 33379-100MG	100 mg
Acibenzolar acid	-	- 35371-50MG	50 mg
Acibenzolar- <i>S</i> -methyl	-	- 32820-100MG	100 mg
Acifluorfen	-	- N11027-250MG	250 mg
Acifluorfen	-	- 34311-50MG	50 mg
Aclonifen	-	- 36792-250MG-R	250 mg
Acrinathrin	-	- 46415-100MG-R	100 mg
Alachlor	-	- 45316-250MG	250 mg
Alachlor solution	200 µg/mL in methanol	- 48308	1 mL
Alachlor solution	1000 µg/mL in methanol	- 41089	1 mL
Alanycarb	-	- 32872-100MG	100 mg
Aldicarb	-	- 33386-100MG	100 mg
Aldicarb-sulfone	-	- 33387-100MG	100 mg
Aldicarb-sulfoxide	-	- 31258-100MG	100 mg
Aldrin	-	- 36666-25MG	25 mg
Aldrin	-	- 49000-U	1 mL
Aldrin solution	100 ng/µL in acetonitrile	- 36664-2ML 36664-10ML	2 mL 10 mL

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Aldrin solution	2 µg/mL in isooctane	-	48963	10 mL
Aldrin solution	200 µg/mL in isooctane	-	48962	10 mL
Aldrin solution	20 µg/mL in methanol	-	48673	1 mL
Aldrin solution	5000 µg/mL in methanol	-	40220-U	1 mL
Allethrin	-	-	33396-100MG	100 mg
Allidochlor	-	-	45318-100MG	100 mg
Alloxydim-sodium	-	-	45319-250MG	250 mg
Allyl isothiocyanate	-	-	36682-1G	1 g
Ametoctradin	-	-	32461-50MG	50 mg
Ametryn	-	-	N11064-500MG	500 mg
Ametryn	-	-	45321-250MG	250 mg
Ametryn	-	-	49084	100 mg
Amidosulfuron	-	-	33588-100MG	100 mg
2-Aminobenzimidazole	-	-	31189-250MG	250 mg
Aminocarb	-	-	45322-250MG	250 mg
Aminoethoxyvinyl glycine hydrochloride	-	-	32999-25MG	25 mg
(Aminomethyl)phosphonic acid	-	-	MET12133A-100MG	100 mg
2-Aminophenol	-	-	36683-1G	1 g
3-Aminophenol	-	-	36684-1G	1 g
Aminopyralid	-	-	32457-25MG	25 mg
2-Aminopyridine	-	-	36685-1G	1 g
4-Aminopyridine	-	-	36687-1G	1 g
Amisulbrom	-	-	32849-25MG	25 mg
Amitraz	-	-	N11068-250MG	
Amitraz	-	-	45323-250MG	250 mg
Amitraz Metabolite BTS 27271	-	-	32442-10MG	10 mg
Amitraz Metabolite BTS 27271 (N-methyl-d ₃)	-	-	32440-10MG	10 mg
Amitrol	-	-	45324-250MG	250 mg
Anilazine	-	-	31464-250MG	250 mg
(S)-3-Anilino-5-methyl-5-phenylimidazolidine-2,4-dione	-	-	34183-100MG	100 mg
Anilofos	-	-	37876-100MG	100 mg
Anthraquinone	-	-	N10970-1G	1 g
Anthraquinone	-	-	31466-250MG	250 mg
ANTU	-	-	45328-250MG	250 mg
Asulam	-	-	45329-250MG	250 mg
Atraton	-	-	31206-250MG	250 mg
Atrazine	-	-	N11106-250MG	250 mg
Atrazine	-	-	45330-250MG-R	250 mg
Atrazine	-	-	49085	100 mg
Atrazine solution	100 ng/µL in methanol	-	31212-2ML	2 mL
Atrazine solution	1000 µg/mL in methyl <i>tert</i> -butyl ether	-	48187	1 mL
Atrazine-d ₅	-	-	34053-10MG-R	10 mg
Atrazine-desethyl	-	-	MET11106B-50MG	50 mg
Atrazine-desethyl	-	-	36629-250MG	250 mg
Atrazine-desethyl solution	100 ng/µL in methanol	-	31210-2ML	2 mL
Atrazine-desethyl-desisopropyl	-	-	36667-250MG	250 mg
Atrazine-desethyl-desisopropyl-2-hydroxy	-	-	45613-250MG	250 mg
Atrazine-desethyl-2-hydroxy	-	-	45490-100MG	100 mg
Atrazine-desisopropyl	-	-	36628-250MG	250 mg
Atrazine-desisopropyl-2-hydroxy	-	-	31523-100MG	100 mg
Atrazine-2-hydroxy	-	-	MET11106F-50MG	50 mg
Atrazine-2-hydroxy	-	-	36631-250MG	250 mg
Azadirachtin	-	-	N11107-10MG	10 mg
Azamethiphos	-	-	45331-250MG	250 mg
Azimsulfuron	-	-	32521-25MG	25 mg
Azinphos-ethyl	-	-	45332-250MG	250 mg
Azinphos-methyl	-	-	45333-250MG	250 mg
Aziprotryne	-	-	45334-250MG	250 mg
Azobenzene	-	-	36689-1G	1 g
Azocyclotin	-	-	45335-250MG	250 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Azoxystrobin	-	-	31697-100MG	100 mg
Barban	-	-	N11123-100MG	100 mg
Baythroid®	-	-	33738-250MG	250 mg
BDMC	-	-	N11131-100MG	
Beflubutamid	-	-	32866-100MG	100 mg
Benalaxyl	-	-	31222-250MG	250 mg
Benalaxyl-M	-	-	32900-10MG	10 mg
Benazolin	-	-	31038-100MG	100 mg
Benazolin-ethyl ester	-	-	31227-250MG	250 mg
Bendiocarb	-	-	45336-250MG	250 mg
Benfluralin	-	-	45337-250MG	250 mg
Benfuracarb	-	-	31544-100MG	100 mg
Benfuresate	-	-	31637-100MG	100 mg
Benodanil	-	-	45338-250MG	250 mg
Benomyl	-	-	N11138-100MG	100 mg
Benomyl	-	-	45339-1EA	1 ea
			45339-250MG	250 mg
Benoxacor	-	-	46001-250MG	250 mg
Bensulfuron-methyl	-	-	37897-100MG	100 mg
Bensulide	-	-	31469-250MG	250 mg
Bensultap	-	-	33863-100MG-R	100 mg
Bentazon	-	-	N11142-250MG	250 mg
Bentazon	-	-	32052-250MG	250 mg
Bentazon-d ₇	-	-	32965-10MG	10 mg
Bentazon methyl derivative	-	-	N11143-50MG	50 mg
Benthiavalicarb isopropyl	-	-	33006-10MG	10 mg
Bentranil	-	-	37872-25MG	25 mg
Benzofenap solution	100 ng/μL in acetonitrile	-	32474-2ML	2 mL
Benzoximate	-	-	33397-100MG	100 mg
Benzoylprop-ethyl	-	-	31476-100MG	100 mg
Benzthiazuron	-	-	36563-100MG	100 mg
Benzyl benzoate	-	-	N11182-1G	1 g
α-BHC	-	-	48493	50 mg
α-BHC solution	1000 μg/mL in methanol	-	40100-U	1 mL
α-BHC solution	20 μg/mL in methanol	-	48683	1 mL
β-BHC	-	-	48494	50 mg
β-BHC solution	20 μg/mL in methanol	-	48684	1 mL
β-BHC solution	1000 μg/mL in acetone	-	40101	1 mL
γ-BHC	2 μg/mL in isooctane	-	48961	10 mL
γ-BHC	20 μg/mL in methanol	-	48685	1 mL
γ-BHC	200 μg/mL in isooctane	-	48960-U	10 mL
γ-BHC	1000 μg/mL in methanol	-	40102	1 mL
γ-BHC	-	-	49049	1000 mg
γ-BHC	-	-	442598	250 mg
δ-BHC	1000 μg/mL in methanol	-	40103-U	1 mL
δ-BHC	-	-	48495	50 mg
BHC d-isomer	-	-	N11196-100MG	100 mg
BHC (mixture of hexachlorocyclohexanes)	-	-	49007	500 mg
Bifenazate	-	-	32504-50MG	50 mg
Bifenox	-	-	31477-250MG	250 mg
Bifenthrin	-	-	N11203-100MG	100 mg
Bifenthrin	-	-	34314-100MG	100 mg
Bifenthrin solution	100 ng/μL in acetonitrile	-	36993-2ML	2 mL
Binapacryl	-	-	31484-250MG	250 mg
Bioallethrin	-	-	31489-250MG	250 mg
Bioresmethrin	-	-	31496-250MG	250 mg
Biphenyl	-	-	35800-1G	1 g
2,2'-Bipyridyl	-	-	36759-1G	1 g
4,4'-Bipyridyl	-	-	36690-1G	1 g
Bis(5-chloro-2-hydroxyphenyl)methane	-	-	N11667-1G	1 g
Bis(2-ethylhexyl) phthalate	-	-	36735-1G	1 g
Bismethiazol	-	-	34238-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration	Cat. No.	Qty
Bispyribac sodium salt	-	- 32967-100MG	100 mg
Bixafen	-	- 32581-100MG	100 mg
Boscalid	-	- 33875-100MG-R	100 mg
Brodifacoum	-	- 46036-100MG	100 mg
Bromacil	-	- 45350-250MG	250 mg
Bromadiolon	-	- 46035-100MG	100 mg
Bromfenvinphos-ethyl	-	- 45816-100MG	100 mg
Bromfenvinphos-methyl	-	- 45815-100MG	100 mg
Bromobutide	-	- 37042-25MG	25 mg
Bromocyclen	-	- 33398-100MG	100 mg
Bromophos-ethyl	-	- 33399-100MG	100 mg
Bromophos-methyl	-	- 33400-100MG	100 mg
Bromopropylate	-	- 45357-250MG	250 mg
Bromopyrazone	-	- 45358-250MG	250 mg
Bromoxynil	-	- 45355-250MG	250 mg
Bromoxynil-octanoate	-	- 45356-250MG	250 mg
Bromuconazol	-	- 31644-100MG	100 mg
Bronopol	-	- 32053-250MG	250 mg
Bupirimate	-	- 31510-250MG	250 mg
Buprofezin	-	- 37886-100MG	100 mg
Butachlor	-	- 37887-100MG	100 mg
Butafenacil	-	- 33659-100MG-R	100 mg
Butamifos	-	- 37046-25MG	25 mg
Butocarboxim	-	- 36121-100MG	100 mg
Butocarboximsulfoxide	-	- 45719-100MG	100 mg
Butoxy-carboxim	-	- 36122-100MG	100 mg
Butralin	-	- 36528-250MG	250 mg
Buturon	-	- 36510-100MG	100 mg
Butylat	-	- N11383-1G	1 g
Butylat	-	- 45363-250MG	250 mg
4-tert-Butylphenol	-	- 506761	1000 mg
Cacodylic acid	-	- N11779-500MG	500 mg
Cadusafos	-	- 32505-50MG	50 mg
Cafenstrole	-	- 32430-50MG	50 mg
Calflo E	-	- 34316-250G 34316-4X250G	250 g 4 × 250 g
Captafol	-	- 45365-250MG	250 mg
Captan	-	- N11400-1G	1 g
Captan solution	100 ng/μL in acetonitrile	- 36994	
Carbaryl	-	- 32055-250MG	250 mg
Carbaryl solution	100 ng/μL in cyclohexane	- 36856-10ML	10 mL
Carbazole solution	2000 μg/mL in methylene chloride	- 48076	1 mL
Carbendazim	-	- N11404-100MG	100 mg
Carbendazim	-	- 45368-250MG	250 mg
Carbendazim-d ₃	-	- 32413-10MG	10 mg
Carbetamide	-	- 45369-250MG	250 mg
Carbofuran	-	- N11405-250MG	250 mg
Carbofuran	-	- 32056-250MG	250 mg
Carbofuran-d ₃	-	- 34019-10MG-R	10 mg
Carbofuran-3-hydroxy	-	- 37896-10MG	10 mg
Carbofuran-3-keto	-	- 37895-10MG-R	10 mg
Carbophenothion	-	- 31461-250MG	250 mg
Carbosulfan	-	- N11409-250MG	250 mg
Carbosulfan	-	- 32005-100MG	100 mg
Carbosulfan	-	- 32005-250MG	250 mg
Carboxine	-	- 45371-250MG	250 mg
Carfentrazone-ethyl	-	- 34079-10MG	10 mg
Carpropamid	-	- 31682-100MG	100 mg
Cartap	-	- N11412-250MG	250 mg
Cartap hydrochloride	-	- 45995-100MG	100 mg
Chinomethionate	-	- 45372-250MG	250 mg
Chloralose	-	- 45373-250MG	250 mg
Chloramben	-	- 33392-100MG-R	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Chloranil	-	-	45374-250MG	250 mg
Chlorantraniliprole	-	-	32510-25MG	25 mg
Chlorbensid	-	-	36123-100MG	100 mg
Chlorbufam	-	-	45301-250MG	250 mg
cis-Chlordane	-	-	N11480-10MG	10 mg
trans-Chlordane	-	-	N13615-10MG	10 mg
α-Chlordane solution	10 ng/μL in cyclohexane	-	31197-2ML	2 mL
α-Chlordane solution	100 μg/mL in hexane	-	48192	1 mL
γ-Chlordane	-	-	442599	50 mg
γ-Chlordane solution	10 ng/μL in cyclohexane	-	36592-2ML 36592-10ML	2 mL 10 mL
γ-Chlordane solution	100 μg/mL in hexane	-	48193	1 mL
Chlordane (mixture of isomers)	20 μg/mL in methanol	-	48699	1 mL
Chlordane (mixture of isomers)	5000 μg/mL in methanol	-	40089	1 mL
Chlordane (mixture of isomers)	1000 μg/mL in isooctane	-	48065-U	1 mL
Chlordane (mixture of isomers)	200 μg/mL in isooctane	-	48984	10 mL
Chlordane (technical mixture)	-	-	45378-250MG	250 mg
Chlordecone	-	-	45379-250MG	250 mg
Chlorden	-	-	31517-250MG	250 mg
Chlordimeform	-	-	31099-250MG	250 mg
Chlorethoxyfos	-	-	32456-25MG	25 mg
Chlorfenapyr	-	-	37913-100MG-R	100 mg
Chlorfenethol	-	-	34319-50MG	50 mg
Chlorfenson	-	-	36124-100MG	100 mg
Chlorfenvinphos	-	-	36551-250MG	250 mg
Chlorfenvinphos solution	100 ng/μL in cyclohexane	-	45828-2ML 45828-10ML	2 mL 10 mL
Chlorfluazuron	-	-	36530-250MG-R	250 mg
Chlorflurenol	-	-	45721-100MG	100 mg
Chlorflurenol-methyl	-	-	45302-250MG	250 mg
Chloridazon	-	-	45385-250MG	250 mg
Chlorimuron ethyl	-	-	32874-100MG	100 mg
Chlorimuron ethyl	-	-	N11432-100MG	100 mg
Chlorinated Pesticides Mix	in isooctane (varied)	-	47557-U	1 mL
Chlorinated Pesticides Mix	in isooctane (varied)	-	49151	5 × 1 mL
Chlormefos	-	-	45386-250MG	250 mg
Chlormequat chloride	-	-	45387-250MG	250 mg
Chloroacetic acid	-	-	36544-1G	1 g
2-Chloroaniline	-	-	31215-1G	1 g
3-Chloroaniline	-	-	35824-1G	1 g
4-Chloroaniline	-	-	35823-1G	1 g
Chlorobenzilate	-	-	45376-250MG	250 mg
Chlorobenzilate solution	200 μg/mL in methylene chloride	-	48370	1 mL
2-Chlorobenzoic acid	-	-	506877	1000 mg
4-Chlorobenzoic acid	-	-	506885	1000 mg
6-Chlorobenzoxazol-2(3H)-one	-	-	33673-100MG-R	100 mg
Chlorobromouron	-	-	45377-250MG	250 mg
2-Chloro-5-chloromethylthiazole	-	-	63227-5G	5 g
5-Chloro-2,4-dimethoxyaniline	-	-	35991-1G	1 g
2-Chloroethanol	-	-	36693-1G	1 g
Chlorofenprop-methyl	-	-	45381-250MG	250 mg
3-Chloro-4-methylaniline	-	-	36761-1G	1 g
4-Chloro-2-methylphenol	-	-	35833-1G	1 g
Chloroneb	-	-	36125-100MG	100 mg
Chlorophacinone	-	-	45390-250MG	250 mg
2-Chlorophenol	-	-	36746-1G	1 g
3-Chlorophenol	-	-	36747-1G	1 g
4-Chlorophenol	-	-	35826-1G	1 g
4-Chlorophenoxyacetic acid	-	-	45391-250MG	250 mg
1-(2-Chlorophenyl)-1-(4-chlorophenyl)-2,2-dichloroethane	-	-	N12706-250MG	
6-Chloropyridine-3-carboxylic acid	-	-	68678-100MG	100 mg
Chloropyrifos solution	1000 μg/mL in methyl <i>tert</i> -butyl ether	-	48104	1 mL
Chlorosulfuron	-	-	N11461-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration	Cat. No.	Qty
Chlorosulfuron	-	34322-100MG	100 mg
Chlorothalonil	-	N11454-250MG	
Chlorothalonil	-	36791-250MG	250 mg
Chlorothalonil solution	100 ng/μL in acetonitrile	36981-2ML 36981-10ML	2 mL 10 mL
2-Chlorotoluene	-	36695-1G	1 g
3-Chlorotoluene	-	36696-1G	1 g
4-Chlorotoluene	-	36697-1G	1 g
Chloroxuron	-	45389-250MG	250 mg
Chloroxynil	-	33363-25MG	25 mg
Chlorpropham	-	45393-250MG	250 mg
Chlorpropham solution	100 ng/μL in acetonitrile	45829-2ML	2 mL
Chlorpropylat	-	45394-250MG	250 mg
Chlorpyrifos	-	45395-250MG	250 mg
Chlorpyrifos solution	100 ng/μL in acetonitrile	31553-2ML 31553-10ML	2 mL 10 mL
Chlorpyrifos-methyl	-	N11460-250MG	250 mg
Chlorpyrifos-methyl	-	45396-250MG	250 mg
Chlorpyrifos-methyl solution	100 ng/μL in acetonitrile	45831-2ML 45831-10ML	2 mL 10 mL
Chlorthal-dimethyl	-	45397-250MG	250 mg
Chlorthiamid	-	45398-250MG	250 mg
Chlorthion	-	35030-25MG-R	25 mg
Chlorthiophos	-	36126-100MG	100 mg
Chlortoluron	-	N11455-250MG	
Chlortoluron	-	45400-250MG-R	250 mg
Chlozolinat solution	100 ng/μL in cyclohexane	33743-2ML	2 mL
Cinidon-ethyl	-	46336-100MG	100 mg
Cinmethylin	-	34237-50MG	50 mg
Cinosulfuron	-	37893-100MG	100 mg
Clethodim	-	34190-50MG	50 mg
Climbazole	-	36127-100MG	100 mg
Clodinafop-propargyl	-	31676-250MG	250 mg
Clofentezine	-	36763-250MG	250 mg
Clomazone	-	46120-100MG-R	100 mg
Clomeprop	-	37056-10MG	10 mg
Clopyralid	-	36758-250MG	250 mg
Clopyralid (2-hydroxyethyl)ammonium	-	36529-250MG	250 mg
Cloquintocet	-	34239-25MG-R	25 mg
Cloquintocet-mexyl	-	31678-250MG	250 mg
Closantel	-	34093-100MG	100 mg
Clothianidin	-	33589-100MG	100 mg
Clothianidin-d ₃	-	56816-50MG	50 mg
Codlemone	-	32716-50MG	50 mg
Copper naphthenate	-	N11501-1G	1 g
Copper oxychloride	-	N11502-1G	1 g
Coumachlor	-	45402-250MG	250 mg
Coumafuryl	-	34324-10MG	10 mg
Coumaphos	-	45403-250MG	250 mg
Coumaphos	-	N11507-100MG	100 mg
Coumatetralyl	-	45404-250MG	250 mg
Creatine	-	MET11840A-1G	1 g
Cresyl diphenyl phosphate	-	32957-100MG	100 mg
Crimidine	-	36564-250MG	250 mg
Cuelure	-	35376-25MG	25 mg
Cumene	-	36698-1G	1 g
Cumyluron	-	37023-25MG	25 mg
Cyanazine	-	45407-250MG	250 mg
Cyanazine solution	2000 μg/mL in methanol	48592	1 mL
Cyanofenphos solution	100 ng/μL in acetonitrile	33028-2ML	2 mL
Cyanophos	-	46279-25MG	25 mg
Cyanuric acid- ¹³ C ₃	-	32679-10MG	10 mg
Cyazofamid	-	33874-100MG-R	100 mg
Cyclanilide	-	32871-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Cycloate	-	-	45408-250MG	250 mg
Cycloheximide	-	-	N11534-100MG	100 mg
Cycloheximide	-	-	46401-100MG-R	100 mg
Cyclosulfamuron	-	-	32743-100MG	100 mg
Cycloxidim	-	-	31596-100MG	100 mg
Cycluron	-	-	45409-250MG	250 mg
(EZ)-Cyenopyrafen	-	-	32069-25MG	25 mg
Cyflufenamid	-	-	32403-25MG	25 mg
β-Cyfluthrin	-	-	46003-250MG	250 mg
Cyhalofop-butyl	-	-	32753-50MG	50 mg
Cyhalothrin solution	100 ng/μL in acetonitrile	-	36996-2ML	2 mL
λ-Cyhalothrin	-	-	31058-100MG	100 mg
λ-Cyhalothrin	-	-	N12307-100MG	100 mg
Cyhexatin	-	-	45411-250MG	250 mg
Cymoxanil	-	-	34326-100MG	100 mg
Cypermethrin	-	-	36128-100MG	100 mg
Cypermethrin	-	-	N11545-100MG	100 mg
Cypermethrin solution	100 ng/μL in acetonitrile	-	45835-2ML 45835-10ML	2 mL 10 mL
α-Cypermethrin	-	-	N11061-250MG	250 mg
α-Cypermethrin	-	-	45806-100MG	100 mg
Cyphenothrin	-	-	46037-100MG	100 mg
Cyproconazol	-	-	46068-100MG	100 mg
Cyprodinil	-	-	34389-250MG	250 mg
Cyprofuram	-	-	45413-250MG	250 mg
Cyprosulfamide	-	-	32522-100MG	100 mg
Cyromazin	-	-	45414-250MG	250 mg
Cyromazine	-	-	N11550-500MG	500 mg
2,4-D	-	-	31518-250MG	250 mg
2,4-D	-	-	49083	1000 mg
2,4-D solution	100 μg/mL in methanol	-	47896	1 mL
2,4-D solution	5000 μg/mL in acetonitrile	-	40330	1 mL
2,4-D dimethylamine salt	-	-	N10612-1G	1 g
2,4-D butylglycol ester	-	-	31057-250MG	250 mg
2,4-D 1-butyl ester	-	-	45732-250MG-R	250 mg
2,4-D isooctyl ester	-	-	N10615-1G	1 g
2,4-D methyl ester	-	-	45416-250MG	250 mg
2,4-D methyl ester	-	-	49142	1000 mg
2,4-D methyl ester solution	200 μg/mL in hexane	-	47979	1 mL
Dalapon	-	-	35562-250MG	250 mg
Dalapon	-	-	442535	100 mg
Dalapon-methyl	-	-	45383-250MG	250 mg
Daminozide	-	-	45418-250MG	250 mg
Dazomet	-	-	45419-250MG	250 mg
2,4-DB	-	-	45420-250MG-R	250 mg
2,4-DB-methyl ester	-	-	31244-250MG	250 mg
4,4'-DBP	-	-	45421-250MG	250 mg
DCU	-	-	45812-250MG	250 mg
4,4'-DDA	-	-	35484-250MG	250 mg
2,4'-DDD	-	-	35485-250MG	250 mg
2,4'-DDD	-	-	49015	1000 mg
4,4'-DDD	-	-	35486-250MG	250 mg
4,4'-DDD	-	-	49009	1000 mg
4,4'-DDD solution	20 μg/mL in methanol	-	48680	1 mL
4,4'-DDD solution	5000 μg/mL in methanol	-	40092	1 mL
p,p'-DDE	-	-	N12809-100MG	100 mg
2,4'-DDE	-	-	N12707-50MG	
2,4'-DDE solution	100 ng/μL in methanol	-	36663-2ML	2 mL
4,4'-DDE	-	-	35487-100MG 35487-250MG	100 mg 250 mg
4,4'-DDE	-	-	49017	1000 mg
4,4'-DDE solution	100 ng/μL in methanol	-	45838-1ML 45838-2ML	1 mL 2 mL
4,4'-DDE solution	200 μg/mL in isooctane	-	48968	10 mL

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
4,4'-DDE solution	5000 µg/mL in methanol	-	40091	1 mL
4,4'-DDE solution	20 µg/mL in methanol	-	48679	1 mL
4,4'-DDM	-	-	35488-250MG	250 mg
4,4'-DDMU	-	-	35489-250MG	250 mg
4,4'-DDOH	-	-	31091-250MG	250 mg
DDT (o,p' & p,p')	-	-	N11567-250MG	250 mg
2,4'-DDT	-	-	49018	100 mg
2,4'-DDT	-	-	N12708-50MG	
2,4'-DDT solution	100 ng/µL in methanol	-	45839-2ML 45839-10ML	2 mL 10 mL
4,4'-DDT	-	-	N12810-1G	1 g
4,4'-DDT	-	-	31041-100MG	100 mg
4,4'-DDT	-	-	49019	1000 mg
4,4'-DDT solution	100 ng/µL in methanol	-	36662-2ML	2 mL
4,4'-DDT solution	20 µg/mL in methanol	-	48678	1 mL
4,4'-DDT solution	200 µg/mL in isooctane	-	48980	10 mL
4,4'-DDT solution	5000 µg/mL in methanol	-	40124	1 mL
4,4'-DDT-d ₈	-	-	34021-10MG-R	10 mg
DDT-Endrin Mix	500 µg/mL each component in methanol	-	48282	1 mL
DEET	-	-	36542-250MG	250 mg
DEET	-	-	442541	250 mg
Deltamethrin	-	-	N11579-100MG	100 mg
Deltamethrin	-	-	45423-250MG	250 mg
Deltamethrin solution	100 ng/µL in cyclohexane	-	31554	
Demeton-O	-	-	34205-100MG	100 mg
Demeton S	-	-	N11582-100MG	100 mg
Demeton-S-methyl solution	100 ng/µL in acetonitrile	-	34234-2ML	2 mL
Demeton-S-methyl-sulfon	-	-	45424-250MG	250 mg
Demeton O&S	-	-	N11581-100MG	100 mg
N-Desethyl-pirimiphos-methyl	-	-	33991-100MG-R	100 mg
Desmedipham	-	-	45426-250MG	250 mg
Desmethyl-formamido-pirimicarb	-	-	33887-10MG-R	10 mg
Desmethyl-pirimicarb	-	-	33886-10MG-R	10 mg
Desmetryn	-	-	45427-250MG	250 mg
Desnitro-imidacloprid hydrochloride	-	-	37052-25MG	25 mg
Diafenthuron	-	-	31571-250MG	250 mg
Dialifos	-	-	36500-100MG	100 mg
di-Allate	-	-	N11587-100MG	100 mg
Diazinon	-	-	N11621-250MG	250 mg
Diazinon	-	-	45428-250MG	250 mg
Diazinon	-	-	49021	1000 mg
Diazinon solution	100 ng/µL in acetonitrile	-	45842-2ML	2 mL
Dibrom®	-	-	45429-250MG	250 mg
4,4'-Dibromobenzophenone	-	-	36601-500MG	500 mg
1,2-Dibromo-3-chloropropane	-	-	31257-250MG	250 mg
Dibutyl phthalate	-	-	36736-1G	1 g
Dibutyl succinate	-	-	33983-100MG-R	100 mg
Dicamba	-	-	45430-250MG	250 mg
Dicamba-d ₃	-	-	34233-10MG-R	10 mg
Dicamba methyl ester	-	-	N11657-100MG	100 mg
Dicamba methyl ester	-	-	34102-10MG-R	10 mg
Dicamba methyl ester solution	200 µg/mL in hexane	-	47982	1 mL
Dicapthon	-	-	N11658-1G	1 g
Dichlobenil	-	-	45431-250MG	250 mg
Dichlofenthion	-	-	45432-250MG	250 mg
Dichlofuanid	-	-	45433-250MG	250 mg
Dichlon	-	-	45434-250MG	250 mg
Dichloran	-	-	45435-250MG	250 mg
Dichlormid	-	-	33613-100MG	100 mg
Dichloroacetic acid	-	-	36545-1G	1 g
2,3-Dichloroaniline	-	-	36701-1G	1 g
2,4-Dichloroaniline	-	-	35829-1G	1 g
2,5-Dichloroaniline	-	-	36702-1G	1 g

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
2,6-Dichloroaniline	-	-	36703-1G	1 g
3,4-Dichloroaniline	-	-	35827-1G	1 g
3,5-Dichloroaniline	-	-	36704-1G	1 g
2,6-Dichlorobenzamide	-	-	36605-1G	1 g
o-Dichlorobenzene	-	-	N12681-1G	1 g
1,2-Dichlorobenzene	-	-	36707-1G	1 g
1,3-Dichlorobenzene	-	-	36708-1G	1 g
1,4-Dichlorobenzene	-	-	35775-1G	1 g
2,4-Dichlorobenzoic acid	-	-	36749-1G	1 g
2,6-Dichlorobenzoic acid	-	-	36706-1G	1 g
1,2-Dichloro-3-nitrobenzene	-	-	45682-250MG	250 mg
1,2-Dichloro-4-nitrobenzene	-	-	35831-1G	1 g
1,4-Dichloro-2-nitrobenzene	-	-	36572-250MG	250 mg
Dichlorophene	-	-	35992-250MG	250 mg
2,4-Dichlorophenol	-	-	35811-1G	1 g
2,6-Dichlorophenol	-	-	31102-1G	1 g
3,4-Dichlorophenol	-	-	31274-250MG	250 mg
3,5-Dichlorophenol	-	-	31595-250MG	250 mg
2,4-Dichlorophenoxyacetic acid	-	-	N10609-1G	1 g
Dichloroprop-P	-	-	31237-250MG	250 mg
1,3-Dichloropropane	-	-	45439-250MG	250 mg
1,3-Dichloropropene	-	-	45440-250MG	250 mg
α,α -Dichlorotoluene	-	-	31059-250MG	250 mg
Dichlorprop	-	-	45436-250MG	250 mg
Dichlorprop-methyl ester	-	-	45437-250MG	250 mg
Dichlorvos	-	-	45441-250MG	250 mg
Dichlorvos	-	-	N11675-250MG	250 mg
Diclobutrazol	-	-	36764-50MG	50 mg
Diclofop-methyl	-	-	45442-250MG	250 mg
Dicofol	-	-	36677-100MG-R	100 mg
Dicofol solution	100 ng/ μ L in methanol	-	45848-2ML	2 mL
Dicrotophos	-	-	45305-100MG	100 mg
Dicyclanil	-	-	46391-100MG	100 mg
Dicyclohexyl phthalate	-	-	36908-250MG	250 mg
Dicyclohexyl phthalate-3,4,5,6-d ₄	-	-	34186-25MG	25 mg
Dicyclopentadiene	-	-	N11686-500MG	500 mg
Dieldrin	-	-	33491-100MG-R	100 mg
Dieldrin	-	-	N11688-250MG	250 mg
Dieldrin	-	-	49024	50 mg
Dieldrin solution	100 ng/ μ L in acetonitrile	-	36660-2ML-R	2 mL
Dieldrin solution	200 μ g/mL in isooctane	-	48972	10 mL
Dieldrin solution	20 μ g/mL in methanol	-	48674	1 mL
Dieldrin solution	1000 μ g/mL in methanol	-	40088	1 mL
Dienochlor	-	-	45443-250MG	250 mg
Diethofencarb	-	-	34087-100MG	100 mg
2,6-Diethylaniline	-	-	36765-1G	1 g
Diethyl phosphate	-	-	MET11621C-100MG	100 mg
Diethyl phthalate	-	-	36737-1G	1 g
N,N-Diethyl-m-toluamide	-	-	N12618-250MG	250 mg
Difenacoum	-	-	32677-25MG	25 mg
Difenoconazol	-	-	36531-250MG	250 mg
Difenoxyurone	-	-	45444-250MG	250 mg
Difenzoquat methyl sulfate	-	-	34331-250MG	250 mg
Diflovidazin	-	-	32582-25MG	25 mg
Diflubenzuron	-	-	45446-250MG	250 mg
Diflufenican	-	-	45751-100MG	100 mg
Diflufenopyr sodium salt	-	-	37916-100MG-R	100 mg
Dimefluthrin	-	-	32432-100MG	100 mg
Dimefox	-	-	36502-100MG	100 mg
Dimefuron	-	-	36788-250MG-R	250 mg
Dimepiperate	-	-	33943-100MG	100 mg
Dimethachlor	-	-	45447-250MG	250 mg
Dimethachlor Metabolite CGA 373464	-	-	32632-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Dimethachlor Metabolite SYN 528702 sodium salt	-	-	32497-100MG	100 mg
Dimethametryn	-	-	45448-250MG	250 mg
Dimethenamid	-	-	31726-100MG	100 mg
Dimethenamide-P	-	-	33697-100MG-R	100 mg
Dimethipin	-	-	N11757-1G	1 g
Dimethoate	-	-	N11758-250MG	250 mg
Dimethoate	-	-	45449-100MG	100 mg
Dimethoate solution	200 µg/mL in methylene chloride	-	48371	1 mL
Dimethomorph	-	-	46027-100MG	100 mg
2,6-Dimethylaniline	-	-	36766-1G-R	1 g
2,3-Dimethylphenol	-	-	36713-1G	1 g
2,4-Dimethylphenol	-	-	36607-1G	1 g
2,5-Dimethylphenol	-	-	36714-1G	1 g
2,6-Dimethylphenol	-	-	36715-1G	1 g
3,4-Dimethylphenol	-	-	36716-1G	1 g
3,5-Dimethylphenol	-	-	36717-1G	1 g
Dimethyl phthalate	-	-	36738-1G	1 g
Dimethyl terephthalate	-	-	31298-250MG	250 mg
Dimethyltin dichloride	-	-	34301-250MG	250 mg
<i>N,N</i> -Dimethylurea	-	-	36574-250MG	250 mg
Dimetilan	-	-	45450-250MG	250 mg
Dimoxystrobin	-	-	33499-100MG-R	100 mg
Diniconazole	-	-	46049-250MG	250 mg
Dinitramine	-	-	34333-250MG	250 mg
2,4-Dinitrophenol	-	-	34334-250MG	250 mg
Dinobuton	-	-	45451-250MG	250 mg
Dinocap	-	-	45452-100MG 45452-250MG	100 mg 250 mg
Dinoseb	-	-	45453-100MG 45453-250MG	100 mg 250 mg
Dinoseb	-	-	442570	100 mg
Dinoseb solution	200 µg/mL in methylene chloride	-	48378	1 mL
Dinoseb acetate	-	-	31281-250MG	250 mg
Dinotefuran	-	-	32499-50MG	50 mg
Dinoterb	-	-	31241-250MG	250 mg
Dinoterb acetate	-	-	34337-250MG	250 mg
Diufenolan	-	-	31668-250MG	250 mg
Dioxabenzofos	-	-	35352-10MG	10 mg
Dioxathion	-	-	N11790-100MG	100 mg
Diphacinone	-	-	N11793-100MG	100 mg
Diphenamid	-	-	45455-250MG	250 mg
Diphenylamine	-	-	45456-250MG	250 mg
Diphenylmercury(II)	-	-	45457-250MG	250 mg
Diphenyl phthalate	-	-	36617-1G-R	1 g
Diphenyl sulfone	-	-	45458-250MG	250 mg
Dipropetryn	-	-	45459-250MG	250 mg
Dipropyl phthalate	-	-	45624-250MG	250 mg
Diquat dibromide monohydrate	-	-	45422-250MG-R	250 mg
Diquat dibromide monohydrate	-	-	N11816-500MG	500 mg
Disodium methyl arsenate	-	-	N11817-500MG	500 mg
Disulfoton	-	-	45460-250MG	250 mg
Disulfoton	-	-	442572	100 mg
Disulfoton-sulfone	-	-	45871-100MG	100 mg
Disulfoton-sulfoxide	-	-	31562-100MG	100 mg
Ditalimfos solution	100 ng/µL in acetonitrile	-	32832-2ML	2 mL
Dithianon	-	-	45462-250MG	250 mg
Diuron	-	-	45463-250MG	250 mg
Diuron solution	100 ng/µL in acetonitrile	-	45851-2ML	2 mL
Diuron-d ₆	-	-	34018-10MG-R	10 mg
DMST solution	100 ng/µL in acetonitrile	-	32958-2ML	2 mL
DNC-d ₈	-	-	34214-10MG	10 mg
DNOC	-	-	45464-250MG	250 mg
Dodemorph	-	-	45465-250MG	250 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Dodin	-	-	N11840-250MG	250 mg
Dodin	-	-	45466-250MG	250 mg
Drazoxolon	-	-	34338-250MG	250 mg
Dursban	-	-	442573	100 mg
Edifenphos	-	-	45467-250MG	250 mg
Emamectin-benzoate	-	-	31733-250MG	250 mg
Empenthrin	-	-	33312-100MG-R	100 mg
Endosulfan	-	-	N11848-500MG	500 mg
Endosulfan	-	-	32015-250MG	250 mg
Endosulfan solution	100 ng/μL in hexane	-	45852-2ML	2 mL
α-Endosulfan	-	-	45468-100MG	100 mg
α-Endosulfan solution	100 ng/μL in hexane	-	36659-2ML-R	2 mL
β-Endosulfan	-	-	33385-100MG	100 mg
β-Endosulfan solution	100 ng/μL in hexane	-	36582-2ML	2 mL
Endosulfan alcohol	-	-	36674-100MG	100 mg
Endosulfan I (alpha)	-	-	48576	25 mg
Endosulfan II (beta)	-	-	48578	25 mg
Endosulfan ether	-	-	36673-100MG	100 mg
Endosulfan lactone	-	-	36675-100MG	100 mg
Endosulfan sulfate	-	-	36676-100MG-R	100 mg
Endosulfan sulfate	-	-	48580	100 mg
Endosulfan sulfate solution	100 ng/μL in hexane	-	31555-2ML	2 mL
Endosulfan sulfate solution	20 μg/mL in methanol	-	48687	1 mL
Endothal monohydrate	-	-	35525-250MG	250 mg
Endrin	-	-	32014-250MG	250 mg
Endrin	-	-	49032	100 mg
Endrin solution	200 μg/mL in isooctane	-	48976	10 mL
Endrin solution	20 μg/mL in methanol	-	48675	1 mL
Endrin solution	5000 μg/mL in methanol	-	40087	1 mL
Endrin aldehyde	-	-	442578	25 mg
Endrin aldehyde solution	20 μg/mL in methanol	-	48723-U	1 mL
Endrin aldehyde solution	1000 μg/mL in methanol	-	40097	1 mL
Endrin ketone	-	-	442579	25 mg
Endrin-ketone solution	100 ng/μL in acetonitrile	-	46390-2ML-R	2 mL
EPA Pesticide Mix	in methanol: methylene chloride (98:2) (varied)	-	48858-U	1 mL
EPN	100 ng/μL in acetonitrile	-	36984-10ML	10 mL
EPN	-	-	36503-100MG	100 mg
Epoxiconazole	-	-	36848-100MG	100 mg
Eptam®	-	-	442581	250 mg
EPTC	-	-	45469-250MG	250 mg
Esbiol	-	-	N13187-250MG	250 mg
Esbiol	-	-	45470-250MG	250 mg
Esbiothrin	-	-	33309-100MG-R	100 mg
Esfenvalerate	-	-	46277-100MG	100 mg
Etaconazol	-	-	45471-250MG	250 mg
Ethalfuralin	-	-	45472-250MG	250 mg
Ethanethiol (ethyl mercaptan)	-	-	506818	1000 mg
Ethephon	-	-	45473-250MG	250 mg
Ethidimuron	-	-	45474-250MG	250 mg
Ethiofencarb	-	-	45475-250MG	250 mg
Ethiofencarb-sulfone	-	-	45810-10MG	10 mg
Ethiofencarb-sulfoxide	-	-	45811-10MG	10 mg
Ethiolat	-	-	45476-250MG	250 mg
Ethion	-	-	45477-250MG	250 mg
Ethiprole	-	-	33976-100MG-R	100 mg
Ethirimol	-	-	45478-250MG	250 mg
Ethofumesate	-	-	N11874-1G	1 g
Ethofumesate	-	-	45479-250MG	250 mg
Ethofumesate-2-keto	-	-	33888-10MG-R	10 mg
Ethoprophos	-	-	45306-100MG	100 mg
Ethoprophos	-	-	45306-250MG	250 mg
Ethoxyquin	-	-	N11877-250MG	250 mg
Ethoxyquin	-	-	31519-250MG	250 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Ethoxysulfuron	-	-	46300-100MG-R	100 mg
Ethychlozate	-	-	34085-100MG	100 mg
N-(2-Ethylhexyl)-5-norbornene-2,3-dicarboximide	-	-	N12483-250MG	250 mg
Ethyl mercuric chloride	-	-	N11940-250MG	250 mg
2-Ethylphenol	-	-	31198-1G	1 g
3-Ethylphenol	-	-	36723-1G	1 g
4-Ethylphenol	-	-	36724-1G	1 g
Etiocholanone solution	100 ng/μL in acetonitrile	-	32833-2ML	2 mL
Etofenprox	-	-	34094-100MG	100 mg
Etoazole	-	-	32506-50MG	50 mg
Etridiazole	-	-	34340-100MG-R	100 mg
Etridiazole	-	-	442590	250 mg
Etrimfos	-	-	45481-250MG	250 mg
Eugenol	-	-	35995-250MG	250 mg
Famoxadone solution	100 ng/μL in acetonitrile	-	33495-2ML-R	2 mL
Famphur	-	-	34341-100MG	100 mg
Famphur solution	200 μg/mL in methylene chloride	-	48379	1 mL
Febantel	-	-	33981-100MG-R	100 mg
Fenamidone	-	-	33965-100MG-R	100 mg
Fenaminosulf	-	-	45482-250MG	250 mg
Fenamiphos	-	-	45483-250MG	250 mg
Fenamiphos-sulfone	-	-	46292-50MG 46292-100MG	50 mg 100 mg
Fenamiphos-sulfoxide	-	-	46293-100MG	100 mg
Fenarimol	-	-	45484-250MG	250 mg
Fenazaflor	-	-	36504-100MG	100 mg
Fenazaquin	-	-	31635-100MG	100 mg
Fenazox	-	-	45763-250MG-R	250 mg
Fenbuconazol	-	-	N11950-100MG	100 mg
Fenbuconazol	-	-	31654-100MG	100 mg
Fenbutatin oxide	-	-	34342-250MG	250 mg
Fenchlorazol-ethyl	-	-	31548-250MG	250 mg
Fenchlorphos	-	-	45485-100MG	100 mg
Fencloirim	-	-	46005-250MG	250 mg
Fenfuram	-	-	45486-250MG	250 mg
Fenhexamid	-	-	31713-100MG	100 mg
Fenitrothion	-	-	N11955-250MG	250 mg
Fenitrothion	-	-	45487-250MG	250 mg
Fenitrothion	-	-	442592	250 mg
Fenitrothion solution	100 ng/μL in cyclohexane	-	45854-2ML	2 mL
Fenobucarb	-	-	45488-250MG	250 mg
Fenoithiocarb	-	-	32475-25MG	25 mg
Fenoxanil	-	-	33872-100MG-R	100 mg
Fenoxaprop	-	-	36849-100MG-R	100 mg
Fenoxaprop-P	-	-	36850-100MG	100 mg
Fenoxaprop-ethyl	-	-	45518-250MG	250 mg
Fenoxaprop-P-ethyl	-	-	36851-250MG	250 mg
Fenoxycarb	-	-	34343-250MG	250 mg
Fenpiclonil	-	-	36532-250MG	250 mg
Fenpropathrin	-	-	N11960-250MG	250 mg
Fenpropathrin	-	-	31223-250MG	250 mg
Fenpropidin	-	-	46017-250MG	250 mg
Fenpropimorph	-	-	36772-250MG-R	250 mg
Fenpyroximate	-	-	31684-100MG	100 mg
Fenson	-	-	45489-250MG	250 mg
Fensulfothion	-	-	45307-100MG	100 mg
Fenthion	-	-	N11964-250MG	250 mg
Fenthion	-	-	36552-250MG	250 mg
Fenthion-sulfone	-	-	46023-10MG	10 mg
Fenthionsulfoxide	-	-	37885-50MG	50 mg
Fentin acetate	-	-	45491-250MG	250 mg
Fentin chloride	-	-	45492-250MG	250 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration	Cat. No.	Qty
Fentin hydroxide	-	- 45493-250MG	250 mg
Fentrazamide	-	- 37903-100MG-R	100 mg
Fentrazamide Metabolite solution	100 ng/μL in acetonitrile	- 33951-2ML-R	2 mL
Fenuron	-	- 45494-250MG	250 mg
Fenvalerate	-	- N11969-250MG	250 mg
Fenvalerate	-	- 45495-250MG	250 mg
Ferbam	-	- 45496-250MG	250 mg
Fipronil	-	- 46451-100MG	100 mg
Fipronil-desulfinyl	-	- 41865-25MG	25 mg
Flamprop-isopropyl	-	- 45497-250MG	250 mg
Flamprop-M-isopropyl	-	- 45752-250MG	250 mg
Flazasulfuron	-	- 34052-50MG-R	50 mg
Flocoumafen	-	- 34084-50MG	50 mg
Flonicamid	-	- 32509-25MG	25 mg
Florasulam	-	- 32586-50MG	50 mg
Fluazifop	-	- 32824-10MG	10 mg
Fluazifop solution	10 ng/μL in ethyl acetate	- 31285-2ML	2 mL
Fluazifop-P	-	- 35372-25MG	25 mg
Fluazifop-butyl	-	- 36783-250MG-R	250 mg
Fluazifop-P-butyl	-	- 31712-100MG	100 mg
Fluazifop-methyl	-	- 34027-50MG-R	50 mg
Fluazinam	-	- 34095-100MG	100 mg
Fluazinam solution	100 ng/μL in acetonitrile	- 46316-2ML	2 mL
Fluazuron	-	- 46113-100MG-R	100 mg
Flubendiamide	-	- 32801-100MG	100 mg
Flubenzimin	-	- 45499-250MG	250 mg
Fluchloralin	-	- 45500-250MG	250 mg
Flucycloxuron	-	- 32529-25MG	25 mg
Flucythrinate	-	- 33496-100MG-R	100 mg
Flucythrinate solution	10 ng/μL in cyclohexane	- 36885-1ML-R 36885-2ML-R	1 mL 2 mL
Fludioxonil	-	- 46102-100MG-R	100 mg
Flufenacet	-	- 31718-100MG	100 mg
Flufenacet OA	-	- 34153-10MG	10 mg
Flufenoxuron	-	- 31594-250MG	250 mg
Flumequine	-	- 45735-250MG	250 mg
Flumethrin	-	- 46417-100MG	100 mg
Flumetralin	-	- 45501-250MG	250 mg
Flumioxazin	-	- 32525-100MG	100 mg
Flumorph	-	- 37038-25MG	25 mg
Fluometuron	-	- 45502-250MG	250 mg
Fluometuron	-	- 442593-U	500 mg
Fluopicolide	-	- 41132-100MG	100 mg
Fluopyram	-	- 32462-50MG	50 mg
Fluorodifen	-	- 45506-250MG	250 mg
Fluoroglycofen-ethyl	-	- 31674-250MG	250 mg
Fluotrimazol	-	- 45507-250MG	250 mg
Fluoxastrobin	-	- 33797-100MG	100 mg
Flupyradifurone	-	- 37050-100MG	100 mg
Flupyrsulfuron-methyl sodium	-	- 32405-25MG	25 mg
Fluquinconazole	-	- 46301-100MG	100 mg
Flurenol-methyl ester	-	- 31520-250MG	250 mg
Fluridon	-	- 45511-250MG	250 mg
Flurochloridon	-	- 36517-100MG	100 mg
Fluroxypyr	-	- 45758-100MG-R	100 mg
Fluroxypyr-1-methylheptyl ester	-	- 36780-100MG-R	100 mg
Flurprimidol	-	- 32523-100MG	100 mg
Flurtamone	-	- 46286-100MG	100 mg
Flusilazole	-	- 45753-100MG	100 mg
Fluthiacet-methyl	-	- 32464-25MG	25 mg
Flutolanil	-	- N12004-250MG	250 mg
Flutriafol	-	- 34344-100MG	100 mg
τ-Fluvalinate	-	- N13263-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration	Cat. No.	Qty
τ-Fluvalinate	-	- 46294-100MG 46294-250MG	100 mg 250 mg
Fluxapyroxad	-	- 37047-100MG	100 mg
Fluxofenim	-	- 34387-250MG	250 mg
Folpet	-	- 32057-250MG	250 mg
Fomesafen	-	- 46325-100MG-R	100 mg
Fonofos	-	- N11842-100MG	100 mg
Fonofos solution	100 ng/μL in acetonitrile	- 33587-2ML	2 mL
Foramsulfuron	-	- 33977-100MG-R	100 mg
Forchlorfenuron	-	- 32974-100MG	100 mg
Formetanate hydrochloride	-	- 45514-250MG	250 mg
Formothion solution	~80% in xylene	- 46424-250MG	250 mg
Fosetyl-aluminum	-	- N12019-100MG	100 mg
Fosthiazate	-	- 34099-50MG	50 mg
Fuberidazole	-	- 45515-250MG	250 mg
Furalaxyl	-	- 45516-250MG	250 mg
Furathiocarb	-	- 45517-250MG	250 mg
Furilazole	-	- 32431-50MG	50 mg
Furmecyclox	-	- 34347-100MG	100 mg
Fusarenon X solution	100 μg/mL in acetonitrile	- 34130-2ML	2 mL
Gibberellic acid	-	- 36575-250MG	250 mg
Glufosinate-ammonium	-	- 45520-100MG	100 mg
Glyphosate	-	- 45521-250MG	250 mg
Guazatine acetate salt	-	- 37915-100MG-R	100 mg
Halfenprox	-	- 37054-10MG	10 mg
Halofenozide	-	- 68535-25MG	25 mg
Halosulfuron-methyl	-	- 32918-50MG	50 mg
Haloxyfop	-	- 45817-100MG	100 mg
Haloxyfop-P	-	- 35378-25MG	25 mg
Haloxyfop-2-ethoxyethyl	-	- 31256-100MG	100 mg
Haloxyfop-methyl	-	- 45820-50MG	50 mg
Haloxyfop-P-methyl	-	- 33197-100MG	100 mg
Haloxyfop P-methyl solution	100 ng/μL in acetonitrile	- 34043-2ML-R	2 mL
HCH	-	- 36756-250MG	250 mg
α-HCH	-	- 33856-50MG 33856-100MG-R	50 mg 100 mg
β-HCH	-	- 33376-100MG	100 mg
β-HCH solution	100 ng/μL in methanol	- 36584-2ML	2 mL
δ-HCH	-	- 33377-50MG	50 mg
δ-HCH solution	20 μg/mL in methanol	- 48686	1 mL
Heptachlor	-	- N12147-100MG	100 mg
Heptachlor solution	100 ng/μL in methanol	- 31211-2ML 31211-10ML	2 mL 10 mL
Heptachlor solution	20 μg/mL in methanol	- 48676	1 mL
Heptachlor solution	200 μg/mL in isooctane	- 48964	10 mL
Heptachlor solution	1000 μg/mL in methanol	- 40098	1 mL
Heptachlor epoxide	-	- 49042	100 mg
Heptachlor endo-epoxide	-	- 35492-50MG	50 mg
Heptachlor endo-epoxide solution	100 ng/μL in methanol	- 31557-2ML	2 mL
Heptachlor exo-epoxide	-	- 34309-50MG	50 mg
Heptachlor exo-epoxide	-	- N12148-50MG	50 mg
Heptachlor exo-epoxide solution	100 ng/μL in methanol	- 45861-2ML	2 mL
Heptachlor epoxide isomer A solution	1000 μg/mL in methanol	- 48198	1 mL
Heptachlor epoxide isomer B solution	20 μg/mL in methanol	- 48677	1 mL
Heptachlor epoxide isomer B solution	1000 μg/mL in methanol	- 40099	1 mL
Heptenophos	-	- 41373-25MG	25 mg
Hexabromobenzene	-	- 45524-250MG	250 mg
Hexachlorobenzene	-	- N12159-250MG	250 mg
Hexachlorobenzene	-	- 45522-250MG	250 mg
Hexachloro-1,3-butadiene	-	- 45525-250MG	250 mg
Hexachlorophene	-	- 45526-250MG	250 mg
Hexaconazol	-	- 34348-100MG	100 mg
Hexaflumuron	-	- 37902-100MG-R	100 mg
Hexazinone	-	- 36129-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Hexythiazox	-	-	33365-100MG	100 mg
Hydramethylnon	-	-	35373-100MG	100 mg
5-Hydroprene	-	-	46426-250MG	250 mg
4-Hydroxybenzotrile	-	-	45528-250MG	250 mg
7-Hydroxycoumarin	-	-	MET13750A-1G	1 g
6-Hydroxypyridine-3-carboxylic acid	-	-	19386-100MG	100 mg
5-Hydroxythiabenzazole	-	-	33818-10MG	10 mg
Imazalil	-	-	32007-100MG	100 mg
Imazalil sulfate	-	-	33997-100MG-R	100 mg
Imazamethabenz-methyl	-	-	34350-100MG	100 mg
Imazamox	-	-	34227-100MG	100 mg
Imazapic	-	-	34179-100MG	100 mg
Imazapyr	-	-	N12203-100MG	100 mg
Imazapyr	-	-	37877-100MG	100 mg
Imazaquin	-	-	37878-100MG	100 mg
Imazethapyr	-	-	37923-100MG-R	100 mg
Imazosulfuron	-	-	32919-50MG	50 mg
Imidacloprid	-	-	37894-100MG	100 mg
Imidacloprid	-	-	N12206-500MG	500 mg
Imidacloprid solution	100 ng/μL in acetonitrile	-	46341-2ML	2 mL
Imidacloprid-d ₄	-	-	34170-10MG	10 mg
2-Imidazolidinethione	-	-	45531-250MG	250 mg
2-Imidazolidone	-	-	31534-250MG	250 mg
Iminoctadine triacetate	-	-	37007-10MG	10 mg
Imiprothrin	-	-	33442-50MG	50 mg
Inabenfide	-	-	35351-10MG	10 mg
3-Indoleacetic acid	-	-	45533-250MG	250 mg
Indole-3-butyric acid	-	-	45532-250MG	250 mg
Indoxacarb	-	-	33969-25MG-R	25 mg
Iodosulfuron-methyl-sodium	-	-	30317-100MG-R	100 mg
Ioxynil	-	-	36131-100MG	100 mg
Ioxynil-octanoate	-	-	33381-100MG	100 mg
Iprobenfos	-	-	45814-100MG	100 mg
Iprodione	-	-	36132-100MG	100 mg
Ipronidazole-d ₃	-	-	34216-10MG	10 mg
Iprovalicarb	-	-	33431-100MG-R	100 mg
Irgarol®	-	-	46105-250MG-R	250 mg
Isazophos	-	-	36133-100MG	100 mg
Isocarbamide	-	-	36134-100MG	100 mg
Isocarbophos	-	-	37901-100MG-R	100 mg
Isodrine	-	-	33389-100MG	100 mg
Isodrine	-	-	442625	250 mg
Isodrine solution	5000 μg/mL in methanol	-	40856	1 mL
Isofenphos solution	100 ng/μL in acetonitrile	-	32860-2ML	2 mL
Isofenphos-methyl	-	-	33436-50MG	50 mg
Isomethiozin	-	-	36136-100MG	100 mg
Isoprocarb	-	-	45541-250MG	250 mg
Isopropalin	-	-	36505-100MG	100 mg
N-Isopropylaniline	-	-	31576-1G	1 g
4-Isopropylaniline	-	-	35979-250MG	250 mg
2-Isopropylthioxanthone	-	-	34221-50MG	50 mg
4-Isopropylthioxanthone	-	-	34222-50MG	50 mg
Isoproturon	-	-	N12279-100MG	100 mg
Isoproturon	-	-	36137-100MG	100 mg
Isoproturon-d ₆	-	-	34017-10MG-R	10 mg
Isopyrazam	-	-	32532-100MG	100 mg
Isotianil	-	-	32524-100MG	100 mg
Isouron	-	-	37009-10MG	10 mg
Isoxaben	-	-	36138-100MG	100 mg
Isxadifen-ethyl	-	-	33799-100MG	100 mg
Isoxafutole	-	-	46437-100MG	100 mg
Isoxathion	-	-	76529-25MG	25 mg
Jodfenphos	-	-	45544-250MG	250 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Kadethrin	-	-	36139-100MG	100 mg
Karbutylate	-	-	45546-250MG	250 mg
Kelevan	-	-	35493-250MG	250 mg
Kepone	-	-	N12291-50MG	50 mg
Kepone	-	-	49046	100 mg
Kresoxim-methyl	-	-	37899-100MG	100 mg
Lactofen	-	-	32972-100MG	100 mg
Lenacil	-	-	31112-100MG	100 mg
Leptophos	-	-	33366-100MG	100 mg
Lindane	-	-	45548-250MG	250 mg
Linuron	-	-	N12322-250MG	250 mg
Linuron	-	-	36141-100MG	100 mg
Linuron solution	100 ng/μL in methanol	-	45868-2ML	2 mL
Lufenuron	-	-	31662-100MG	100 mg
Malaoxon	-	-	36142-100MG	100 mg
Malathion	-	-	36143-100MG	100 mg
Malathion	-	-	N12346-500MG	500 mg
Malathion solution	100 ng/μL in cyclohexane	-	31558-2ML 31558-10ML	2 mL 10 mL
Maleic hydrazide	-	-	45552-250MG	250 mg
Mancozeb	-	-	45553-250MG	250 mg
Mandipropamid	-	-	32805-100MG	100 mg
Maneb	-	-	N12355-1G	1 g
Maneb	-	-	45554-250MG	250 mg
MCPA	-	-	45555-250MG	250 mg
MCPA solution	100 ng/μL in acetonitrile	-	45873-2ML	2 mL
MCPA sodium salt monohydrate	-	-	45746-250MG	250 mg
MCPA-butoxyethylester solution	10 ng/μL in isooctane	-	31290-2ML	2 mL
MCPA-2-ethylhexyl ester	-	-	33394-100MG	100 mg
MCPA methyl ester	-	-	36144-100MG	100 mg
MCPA methyl ester solution	2000 μg/mL in hexane	-	47985-U	1 mL
MCPB	-	-	36145-100MG	100 mg
MCPP methyl ester solution	2000 μg/mL in hexane	-	47986	1 mL
Mecarbam	-	-	36515-100MG	100 mg
Mecoprop	-	-	36147-100MG	100 mg
Mecoprop-P	-	-	36773-250MG-R	250 mg
Mecoprop methyl ester	-	-	36148-100MG	100 mg
Mecoprop-2-octyl ester	-	-	37871-100MG	100 mg
Mefenacet	-	-	36150-100MG-R	100 mg
Mefenpyr-diethyl	-	-	46302-100MG	100 mg
Mepanipyrim	-	-	33970-50MG	50 mg
Mephosfolan	-	-	34352-100MG	100 mg
Mepiquat chloride	-	-	36151-100MG	100 mg
Mepronil	-	-	33361-100MG	100 mg
Mercaptodimethur	-	-	36152-100MG	100 mg
Mercaptodimethursulfon	-	-	45729-100MG	100 mg
Mercaptodimethursulfon	-	-	MET12398A-50MG	50 mg
Mesosulfuron-methyl	-	-	34178-100MG	100 mg
Mesotrione	-	-	33855-100MG-R	100 mg
Metaflumizone	-	-	32966-100MG	100 mg
Metalaxyl	-	-	N12380-100MG	100 mg
Metalaxyl	-	-	32012-100MG	100 mg
Metalaxyl-M	-	-	32808-100MG	100 mg
Metalddehyde	-	-	N12381-1G	1 g
Metalddehyde	-	-	36611-1G-R	1 g
Metamitron	-	-	36154-100MG	100 mg
Metam sodium	-	-	N12382-250MG	250 mg
Metam-sodium hydrate	-	-	45570-250MG	250 mg
Metazachlor	-	-	36155-100MG	100 mg
Metconazole	-	-	37909-100MG-R	100 mg
Methabenzthiazuron	-	-	36156-100MG	100 mg
Methacrifos	-	-	45569-250MG	250 mg
Methamidophos	-	-	N12393-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Methamidophos	-	-	33395-100MG	100 mg
Methamidophos solution	100 ng/μL in acetonitrile	-	46342-2ML 46342-10ML	2 mL 10 mL
Methfuroxam	-	-	36157-100MG	100 mg
Methidathion	-	-	N12397-250MG	250 mg
Methidathion	-	-	36158-100MG	100 mg
Methiocarb sulfoxide	-	-	34177-100MG	100 mg
Methomyl	-	-	N12399-100MG	100 mg
Methomyl	-	-	36159-100MG	100 mg
Methomyl	-	-	442642	250 mg
Methoprene	-	-	33375-100MG	100 mg
Methoprotryne	-	-	31115-100MG	100 mg
Methoxychlor	-	-	36161-100MG	100 mg
Methoxychlor	-	-	49054	1000 mg
Methoxychlor solution	100 ng/μL in methanol	-	45881-2ML	2 mL
Methoxychlor solution	200 μg/mL in isoctane	-	48982	10 mL
Methoxyfenozide	-	-	32507-50MG	50 mg
Methyl chloroacetate	-	-	36546-1G	1 g
3-Methylcholanthrene solution	100 ng/μL in acetonitrile	-	46434-2ML-R 46434-10ML-R	2 mL 10 mL
Methyl dichloroacetate	-	-	36547-1G	1 g
Methyl 2,4-dichlorophenylacetate solution	100 μg/mL in acetone	-	47339	1 mL
Methyl isothiocyanate	-	-	45576-250MG	250 mg
Methylmercury(II) chloride	-	-	33368-100MG-R	100 mg
Methyl parathion	-	-	N12452-250MG	250 mg
Methyl parathion solution	1000 μg/mL in acetone	-	40572	1 mL
Methyl-pentachlorophenylsulfide	-	-	33367-100MG	100 mg
3-(Methylphosphinico)propionic acid	-	-	31264-100MG	100 mg
Methyl trichloroacetate	-	-	36548-1G	1 g
Metiram	-	-	45577-250MG	250 mg
Metobromuron	-	-	36162-100MG	100 mg
Metolachlor	-	-	N12478-100MG	100 mg
Metolachlor	-	-	36163-100MG	100 mg
Metolachlor solution	100 ng/μL in acetonitrile	-	45883-10ML	10 mL
S-Metolachlor	-	-	33859-100MG-R	100 mg
Metolachlor ESA sodium salt	-	-	34149-10MG	10 mg
S-Metolachlor Metabolite CGA 357704	-	-	32637-100MG	100 mg
Metolcarb	-	-	31037-100MG	100 mg
(E)-Metominostrobin	-	-	34230-10MG	10 mg
Metosulam	-	-	46317-100MG	100 mg
Metoxuron	-	-	36164-100MG	100 mg
Metrafenone	-	-	32964-100MG	100 mg
Metribuzin	-	-	N12481-250MG	
Metribuzin	-	-	36165-100MG	100 mg
Metribuzin solution	100 ng/μL in acetonitrile	-	31559-10ML	10 mL
Metsulfuron-methyl	-	-	46432-100MG	100 mg
Metsulfuron-methyl	-	-	N12482-100MG	
Mevinphos	-	-	N13037-250MG	
cis-Mevinphos solution	100 ng/μL in acetonitrile	-	33767-2ML	2 mL
trans-Mevinphos solution	100 ng/μL in acetonitrile	-	33765-2ML	2 mL
MGK 264	-	-	36168-100MG	100 mg
MGK 326	-	-	36169-100MG	100 mg
Mirex	-	-	36170-100MG	100 mg
Mirex solution	100 ng/μL in acetonitrile	-	45887-10ML	10 mL
Molinate	-	-	N12487-250MG	250 mg
Molinate	-	-	36171-100MG	100 mg
Monalide	-	-	36172-100MG	100 mg
Monocrotophos	-	-	N12493-250MG	250 mg
Monocrotophos	-	-	36173-100MG	100 mg
Monocrotophos solution	100 ng/μL in acetonitrile	-	46159-2ML-R	2 mL
Monolinuron	-	-	45590-250MG	250 mg
Monosodium acid methane arsonate sesquihydrate	-	-	N12495-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Monosultap	-	-	32811-100MG	100 mg
Monuron	-	-	36174-100MG	100 mg
Muscalure	-	-	46449-100MG	100 mg
Myclobutanil	-	-	34360-100MG	100 mg
Nabam-d ₄ hexahydrate	-	-	32668-10MG	10 mg
Naftalofos	-	-	34231-100MG	100 mg
1-Naphthaleneacetic acid	-	-	35745-1G	1 g
1-Naphthol	-	-	31097-1G	1 g
1-Naphthylacetamide	-	-	36732-1G	1 g
Napropamid	-	-	36175-100MG	100 mg
Naptalam	-	-	33371-100MG	100 mg
Naptalam	-	-	N12507-250MG	250 mg
Neburon	-	-	36176-100MG	100 mg
Nicosamide monohydrate	-	-	36177-100MG	100 mg
Nicosulfuron	-	-	34210-100MG-R	100 mg
(-)-Nicotine	-	-	36733-1G	1 g
(-)-Nicotine solution	100 ng/μL in acetonitrile	-	46343-10ML	10 mL
Nitenpyram	-	-	46077-100MG	100 mg
Nitralin	-	-	36178-100MG	100 mg
Nitrapyrin	-	-	33372-100MG	100 mg
Nitrofen	-	-	N12663-100MG	100 mg
Nitrofen	-	-	33374-100MG	100 mg
4-Nitrophenol sodium salt dihydrate	-	-	36612-1G-R	1 g
Nitrothal-isopropyl	-	-	36179-100MG	100 mg
cis-Nonachlor solution	100 ng/μL in acetonitrile	-	36845-2ML	2 mL
cis-Nonachlor solution	100 μg/mL in hexane	-	48138	1 mL
trans-Nonachlor solution	100 ng/μL in acetonitrile	-	36846-2ML	2 mL
trans-Nonachlor solution	100 μg/mL in hexane	-	48137	1 mL
Nonylphenol	-	-	46018-1G	1 g
4-Nonylphenol	-	-	46405-100MG	100 mg
Norflurazon	-	-	34364-100MG	100 mg
Norflurazon	-	-	N12668-100MG	100 mg
Novaluron	-	-	32419-25MG	25 mg
Nuarimol	-	-	31116-100MG	100 mg
Octachloronaphthalene solution	10 ng/μL in cyclohexane	-	36935-2ML-R	2 mL
2-Octyl-4-isothiazolin-3-one	-	-	46078-250MG-R	250 mg
Ofurace	-	-	46143-100MG-R	100 mg
Omethoate	-	-	N12726-100MG	
Omethoate	-	-	36181-100MG	100 mg
Orbencarb	-	-	33362-100MG	100 mg
Orthosulfamuron	-	-	32427-50MG	50 mg
Oryastrobin	-	-	32428-100MG	100 mg
Oryzalin	-	-	36182-100MG	100 mg
Oryzalin	-	-	N12729-1G	1 g
Oxabetrinil	-	-	36183-100MG	100 mg
Oxadiargyl	-	-	33966-100MG-R	100 mg
Oxadiazon	-	-	33382-100MG	100 mg
Oxadiazon	-	-	442729	100 mg
Oxadixyl	-	-	34365-100MG	100 mg
Oxamyl	-	-	36184-100MG	100 mg
Oxamyl	-	-	442730	100 mg
Oxasulfuron	-	-	46416-100MG	100 mg
Oxaziclomefone	-	-	37005-10MG	10 mg
Oxycarboxine	-	-	36185-100MG	100 mg
Oxydemeton-methyl	-	-	N12741-50MG	50 mg
Oxyfluorfen	-	-	35031-100MG	100 mg
Oxyfluorfen	-	-	N12742-250MG	250 mg
Paclbutrazol	-	-	46046-250MG	250 mg
Paraoxon	-	-	N12816-100MG	100 mg
Paraoxon-ethyl	-	-	36186-100MG	100 mg
Paraoxon-methyl	-	-	N11775-100MG	100 mg
Paraoxon-methyl	-	-	46192-100MG-R	100 mg
Paraquat CL tetrahydrate	-	-	N12817-500MG	500 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Paraquat dichloride	-	-	36541-100MG	100 mg
Parathion	-	-	45607-100MG	100 mg
Parathion	-	-	49062	500 mg
Parathion solution	100 ng/μL in cyclohexane	-	45890-2ML	2 mL
Parathion-ethyl-d ₁₀	-	-	33452-10MG-R	10 mg
Parathion-methyl	-	-	36187-100MG	100 mg
Parathion-methyl	-	-	49055	500 mg
Parathion-methyl solution	100 ng/μL in cyclohexane	-	45891-2ML-R	2 mL
PCB No 156 solution	100 ng/μL in hexane	-	33710-2ML	2 mL
Pebulat	-	-	36188-100MG	100 mg
Penconazol	-	-	36189-100MG	100 mg
Pencycuron	-	-	31118-100MG	100 mg
Pendimethalin	-	-	36191-100MG	100 mg
Pendimethalin solution	100 ng/μL in methanol	-	45892-2ML	2 mL
Penflufen	-	-	37049-100MG	100 mg
Penoxsulam	-	-	32094-25MG	25 mg
Pentachloroaniline	-	-	46012-100MG	100 mg
2,3,4,5,6-Pentachloroanisole	-	-	N12826-1G	1 g
Pentachloroethane	-	-	31061-250MG	250 mg
Pentachlorophenol	-	-	N12831-1G	1 g
Pentachlorophenol solution	100 ng/μL in methanol	-	36594-2ML	2 mL
Pentachlorophenyl acetate	-	-	35550-100MG	100 mg
Pentachlorothiophenol	-	-	MET12159B-100MG	100 mg
Pentanochlor solution	100 ng/μL in acetonitrile	-	32861-2ML	2 mL
Permethrin	-	-	N12848-250MG	250 mg
Permethrin	-	-	45614-250MG	250 mg
cis-Permethrin	-	-	N11483-50MG	50 mg
cis-Permethrin solution	10 ng/μL in cyclohexane	-	36892-2ML	2 mL
trans-Permethrin solution	10 ng/μL in cyclohexane	-	36893-2ML	2 mL
Permethrin (isomers)	-	-	442748	100 mg
Permethrin (isomers) solution	100 ng/μL in acetonitrile	-	45893-2ML-R	2 mL
Permethrin (isomers) solution	1000 μg/mL in methanol	-	47956	1 mL
Perthan	-	-	45615-250MG	250 mg
Pesticide standard 17 solution	-	-	36978-2ML	2 mL
Pethoxamid	-	-	32528-50MG	50 mg
Phenmedipham	-	-	36192-100MG	100 mg
Phenmedipham-ethyl	-	-	37079-25MG	25 mg
Phenol solution	100 ng/μL in acetonitrile	-	46344-2ML 46344-10ML	2 mL 10 mL
Phenothrin	-	-	36193-100MG	100 mg
Phenoxyacetic acid	-	-	34366-250MG	250 mg
3-Phenoxybenzoic acid	-	-	46319-250MG-R	250 mg
Phenthoate	-	-	31611-100MG	100 mg
Phenylmercury chloride	-	-	45619-250MG	250 mg
2-Phenylphenol	-	-	N12692-1G	1 g
2-Phenylphenol	-	-	45529-250MG	250 mg
4-Phenylphenol	-	-	506842	1000 mg
N-Phenylthiourea	-	-	31056-250MG	250 mg
Phorate	-	-	N13035-100MG	100 mg
Phorate	-	-	33388-100MG	100 mg
Phorat-sulfone	-	-	46031-100MG	100 mg
Phorat-sulfoxide	-	-	45762-100MG-R	100 mg
Phosalone	-	-	N13036-100MG	100 mg
Phosalone	-	-	36194-100MG	100 mg
Phosfolan	-	-	N13038-1G	1 g
Phosmet	-	-	36195-100MG	100 mg
Phosphamidon	-	-	45622-100MG 45622-250MG	100 mg 250 mg
N-(Phosphonomethyl)glycine	-	-	N12133-1G	1 g
Phoxim	-	-	36197-100MG	100 mg
Phthalimide	-	-	36734-1G	1 g
Picloram	-	-	36774-250MG-R	250 mg
Picolinafen	-	-	37912-100MG-R	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration	Cat. No.	Qty
Picoxystrobin	-	33658-100MG-R	100 mg
Picric acid solution	100 µg/mL in acetonitrile	46209-10ML	10 mL
Pindone	-	45625-250MG	250 mg
Pinoxaden	-	32821-25MG	25 mg
Piperonylbutoxide	-	N13061-100MG	100 mg
Piperonylbutoxide	-	45626-100MG	100 mg
Piperophos	-	46011-250MG	250 mg
Pirimicarb	-	45627-250MG	250 mg
Pirimicarb-d ₆	-	34209-10MG-R	10 mg
Pirimiphos-ethyl	-	45628-250MG	250 mg
Pirimiphos-methyl	-	N13064-250MG	250 mg
Pirimiphos-methyl	-	32058-250MG	250 mg
Piroctone olamine	-	51872-100MG	100 mg
Plifenat	-	36569-25MG-R	25 mg
Potassium clavulanate	-	33454-100MG	100 mg
Prallethrin	-	32917-100MG	100 mg
Pretilachlor	-	31251-250MG	250 mg
Primisulfuron-methyl	-	32433-100MG	100 mg
Prochloraz	-	45631-250MG	250 mg
Procyimdone	-	36640-250MG-R	250 mg
Prodiamine solution	10 µg/mL in cyclohexane	46454-10ML	10 mL
Profenofos	-	N13097-250MG	250 mg
Profenofos	-	45632-250MG	250 mg
Profluralin	-	45633-250MG	250 mg
Proxoxym lithium salt	-	33698-100MG-R	100 mg
Prohexadione-Calcium	-	31720-100MG	100 mg
Promecarb	-	45634-250MG	250 mg
Prometon	-	45635-250MG	250 mg
Prometryn	-	N13103-1G	1 g
Prometryn	-	45636-250MG	250 mg
Prometryn solution	100 ng/µL in acetonitrile	31561-2ML	2 mL
Pronamide (Kerb)	-	442764	100 mg
Propachlor	-	45637-250MG	250 mg
Propachlor	-	442765	250 mg
Propachlor OA	-	34151-10MG	10 mg
Propamocarb	-	45638-250MG	250 mg
Propanil	-	45639-250MG	250 mg
Propaquizafop	-	31572-250MG	250 mg
Propargite	-	N12727-100MG	100 mg
Propargite	-	32051-100MG	100 mg
Propazine	-	45640-250MG	250 mg
Propazine	-	49088	100 mg
Propazine solution	100 ng/µL in methanol	36587-2ML	2 mL
Propetamphos	-	34371-100MG	100 mg
Propham	-	45641-250MG	250 mg
Propiconazole	-	N13576-250MG	250 mg
Propiconazole	-	45642-250MG	250 mg
Propiconazole solution	100 ng/µL in methanol	45899-10ML	10 mL
Propineb	-	45643-250MG	250 mg
Propisochlor	-	34056-50MG-R	50 mg
Propoxur	-	45644-250MG	250 mg
Propoxycarbazone sodium salt	-	33985-100MG-R	100 mg
Propylene thiourea	-	32949-25MG	25 mg
Propylthiourea	-	46427-100MG-R	100 mg
Propyzamide	-	45645-250MG	250 mg
Proquinazid	-	32508-50MG	50 mg
Prosulfocarb	-	31141-250MG	250 mg
Prosulfuron	-	31666-100MG	100 mg
Prothioconazole	-	34232-100MG	100 mg
Prothioconazole-desthio	-	32429-20MG	20 mg
Prothiofos	-	45311-50MG	50 mg
Prowl® (Pendimethaline)	-	442771-U	250 mg
Pymetrozin	-	46119-250MG-R	250 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration	Cat. No.	Qty
Pyracarbolid	-	45646-250MG	250 mg
Pyraclufos	-	N13142-50MG	50 mg
Pyraclostrobin	-	33696-100MG-R	100 mg
Pyraflufen-ethyl	-	35346-10MG	10 mg
Pyranocoumarin	-	45647-250MG	250 mg
Pyrasulfotole	-	32973-100MG	100 mg
Pyrazolynate	-	32459-25MG	25 mg
Pyrazophos	-	45648-250MG	250 mg
Pyrazosulfuron-ethyl	-	46323-100MG-R	100 mg
Pyrazoxyfen	-	32437-50MG	50 mg
Pyrethroid Standard mixture	-	33417-2ML-R	2 mL
Pyrethrum	-	N13151-100MG	100 mg
Pyrethrum extract	-	33739-100MG	100 mg
Pyribencarb	-	37051-25MG	25 mg
Pyribenzoxim	-	37077-100MG	100 mg
Pyridaben	-	46047-25MG-R	25 mg
Pyridaphenthion	-	32538-100MG	100 mg
Pyridaphenthion solution	10 ng/μL in ethyl acetate	36895-1ML 36895-2ML	1 mL 2 mL
Pyridat	-	N13155-500MG	500 mg
Pyridat	-	45312-250MG	250 mg
Pyrifenox	-	45737-100MG	100 mg
Pyriftalid	-	33694-100MG-R	100 mg
Pyrimethanil	-	31577-250MG	250 mg
Pyrimidifen	-	35999-10MG	10 mg
Pyroquilon	-	45650-250MG	250 mg
Quinalphos	-	45651-250MG	250 mg
Quinchlorac	-	36521-250MG	250 mg
Quinmerac	-	36522-250MG	250 mg
Quinoclamine	-	32719-100MG	100 mg
8-Quinolinol	-	36524-250MG	250 mg
8-Quinolinol hemisulfate salt hemihydrate	-	31143-250MG	250 mg
Quinoxifen	-	46439-100MG	100 mg
Quintozene	-	45653-250MG	250 mg
Quizalofop	-	MET13174A-50MG	
Quizalofop-p	-	33822-100MG	100 mg
Quizalofop-ethyl	-	N13174-100MG	
Quizalofop-ethyl	-	34306-50MG	50 mg
Quizalofop- <i>p</i> -ethyl	-	34074-100MG	100 mg
Quizalofop- <i>p</i> -tefuryl solution	100 ng/μL in acetonitrile	33942-2ML	2 mL
Rabenzazol	-	45654-10MG	10 mg
Resmethrin	-	45655-250MG	250 mg
Rimsulfuron	-	31658-100MG	100 mg
Ronidazole-d ₃	-	34217-10MG	10 mg
Ronnel	-	442776	100 mg
Rotenone	-	N13184-250MG	
Rotenone	-	45656-250MG	250 mg
S 421	-	45657-250MG	250 mg
Saflufenacil	-	32435-100MG	100 mg
Sebuthylazin	-	31261-250MG	250 mg
Sebuthylazin-desethyl	-	36511-250MG	250 mg
Secbumeton	-	45658-250MG	250 mg
Sedaxane, mixture of isomers	-	37048-100MG	100 mg
Sethoxydim	-	N13210-100MG	100 mg
Sethoxydim	-	36795-10MG	10 mg
Sevin (Carbaryl)	-	442779	250 mg
Siduron	-	34373-250MG	250 mg
Silafluofen	-	31574-50MG 31574-250MG	50 mg 250 mg
Silthiofam	-	32498-25MG	25 mg
Silvex®	-	49117	1000 mg
Silvex® solution	5000 μg/mL in methanol	40552	1 mL

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Simazin solution	100 ng/μL in methanol	-	36588-1ML 36588-2ML	1 mL 2 mL
Simazine	-	-	N13800-500MG	500 mg
Simazine	-	-	32059-250MG	250 mg
Simazine	-	-	49089	100 mg
Simazine-d ₁₀	-	-	34054-10MG-R	10 mg
Simeconazole	-	-	35369-25MG	25 mg
Simetryn	-	-	45660-250MG	250 mg
Sodium cacodylate hydrate	-	-	31533-250MG	250 mg
Sodium diethylthiocarbamate trihydrate	-	-	34399-100MG	100 mg
Sodium fluoroacetate	-	-	N13216-1G	1 g
Sodium fluoroacetate	-	-	31220-100MG	100 mg
Spinosad	-	-	33706-50MG	50 mg
Spirodiclofen	-	-	33654-100MG-R	100 mg
Spiromesifen	-	-	33599-100MG	100 mg
Spiromesifen Metabolite M01	-	-	30482-10MG	10 mg
Spirotetramat	-	-	32713-100MG	100 mg
Spirotetramat Metabolite BY108330- <i>cis</i> -enol	-	-	32484-10MG	10 mg
Spirotetramat Metabolite BY108330 enol-glucoside	-	-	32487-10MG	10 mg
Spirotetramat Metabolite BY108330- <i>cis</i> -keto-hydroxy	-	-	32485-10MG	10 mg
Spirotetramat Metabolite BY108330-mono-hydroxy	-	-	32486-10MG	10 mg
Spiroxamine	-	-	46443-100MG	100 mg
Strychnine	-	-	45661-250MG	250 mg
Sulcofuron-sodium monohydrate	-	-	46076-250MG	250 mg
Sulcotrione	-	-	46318-100MG	100 mg
Sulfaquinoxaline	-	-	N13251-10MG	10 mg
Sulfaquinoxaline	-	-	45662-250MG	100 mg
Sulfluramid	-	-	91242-25MG	25 mg
Sulfometuron methyl	-	-	N13254-100MG	100 mg
Sulfometuron methyl	-	-	34224-100MG	100 mg
Sulfosulfuron	-	-	33307-100MG	100 mg
Sulfotep	-	-	N13256-50MG	50 mg
Sulfotep	-	-	45664-100MG	100 mg
Sulfur	-	-	36576-250MG	250 mg
Sulprofos	-	-	45665-250MG	250 mg
Swep	-	-	45666-250MG	250 mg
2,4,5-T	-	-	45667-250MG	250 mg
2,4,5-T solution	100 ng/μL in acetonitrile	-	46367-2ML	2 mL
2,4,5-T-2-ethylhexyl ester	-	-	45709-250MG	250 mg
2,4,5-T methyl ester	-	-	45668-250MG	250 mg
2,4,5-T methyl ester solution	200 μg/mL in hexane	-	47988	1 mL
TBPP	-	-	34188-100MG	100 mg
TBTC	-	-	45713-250MG	250 mg
TBTO	-	-	45669-250MG	250 mg
TCA	-	-	31525-250MG	250 mg
TCCP	-	-	32952-100MG	100 mg
TDCPP	-	-	32951-100MG	100 mg
Tebuconazol	-	-	32013-250MG	250 mg
Tebufenozide	-	-	31652-100MG	100 mg
Tebufenpyrad	-	-	46438-100MG	100 mg
Tebupirimfos	-	-	31599-100MG	100 mg
Tebutam	-	-	36566-250MG	250 mg
Tebuthiuron	-	-	N13505-1G	1 g
Tebuthiuron	-	-	45671-250MG	250 mg
Tecnazene	-	-	45672-250MG	250 mg
Teflubenzuron	-	-	45756-250MG-R	250 mg
Tefluthrin	-	-	35548-100MG	100 mg
Telodrin	-	-	36506-10MG	10 mg
Tembotrione	-	-	32766-100MG	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Tembotrione metabolite AE 1417268	-	-	32584-25MG	25 mg
Temephos	-	-	N10996-100MG	100 mg
Temephos	-	-	31526-250MG	250 mg
TEPP	-	-	32434-50MG	50 mg
Tepaloxymim	-	-	46331-100MG	100 mg
Terbacil	-	-	45675-250MG	250 mg
Terbufos	-	-	45313-100MG	100 mg
Terbufos-sulfone	-	-	31580-50MG	50 mg
Terbufos-sulfoxide	-	-	46044-100MG-R	100 mg
Terbumeton	-	-	31527-250MG	250 mg
Terbumeton-desethyl	-	-	36514-250MG	250 mg
Terbuthylazin solution	100 ng/μL in methanol	-	36589-2ML	2 mL
Terbuthylazin-desethyl	-	-	31229-250MG	250 mg
Terbuthylazine	-	-	N13512-50MG	50 mg
Terbuthylazine	-	-	45678-250MG-R	250 mg
Terbutol	-	-	N13513-100MG	100 mg
Terbutryn	-	-	45677-250MG	250 mg
Terbutylazine-2-hydroxy	-	-	46019-100MG	100 mg
1,2,3,4-Tetrachlorobenzene	-	-	46014-100MG	100 mg
1,2,3,5-Tetrachlorobenzene	-	-	36928-250MG	250 mg
1,2,4,5-Tetrachlorobenzene	-	-	34379-250MG	250 mg
1,2,3,4-Tetrachloro-5-nitrobenzene	-	-	34374-100MG	100 mg
2,3,4,6-Tetrachlorophenol solution	100 ng/μL in methanol	-	45907-2ML	2 mL
2,3,5,6-Tetrachlorophenol	-	-	36518-10MG	10 mg
2,4,5,6-Tetrachloro- <i>m</i> -xylene	-	-	442298	1000 mg
2,4,5,6-Tetrachloro- <i>m</i> -xylene solution	200 μg/mL in methanol	-	48317	1 mL
Tetrachlorvinphos	-	-	45679-250MG	250 mg
Tetraconazole	-	-	37087-100MG	100 mg
Tetradifon	-	-	N13539-250MG	250 mg
Tetradifon	-	-	45680-250MG	250 mg
Tetraethyl pyrophosphate	-	-	N13543-500MG	500 mg
<i>cis</i> -1,2,3,6-Tetrahydrophthalimide	-	-	MET11399A-5G	5 g
Tetramethrin	-	-	45681-250MG-R	250 mg
Tetrasul	-	-	36568-250MG	250 mg
Thiabendazole	-	-	N13560-1G	1 g
Thiabendazole	-	-	45684-250MG	250 mg
Thiacloprid	-	-	37905-100MG-R	100 mg
Thiacloprid-amide	-	-	33897-100MG-R	100 mg
Thiamethoxam	-	-	37924-100MG-R	100 mg
Thiamethoxam-d ₃	-	-	38176-25MG	25 mg
Thiazafuron	-	-	31529-250MG	250 mg
Thidiazuron	-	-	N13564-250MG	250 mg
Thidiazuron	-	-	45686-250MG	250 mg
Thiencarbazone-methyl	-	-	32721-100MG	100 mg
Thifensulfuron-methyl	-	-	46028-100MG	100 mg
Thifluzamide	-	-	49792-100MG	100 mg
Thiobencarb	-	-	45687-250MG	250 mg
Thiocyclam hydrogenoxalate	-	-	31716-100MG	100 mg
Thiodicarb	-	-	N13568-250MG	250 mg
Thiodicarb	-	-	34375-250MG	250 mg
Thiofanox	-	-	45314-100MG	100 mg
Thiofanox-sulfoxide	-	-	31551-100MG	100 mg
Thiometon in Shellsol	-	-	31681-250MG	250 mg
Thionazin	-	-	33941-50MG	50 mg
Thionazin solution	100 ng/μL in acetonitrile	-	33854-2ML-R	2 mL
Thionazin solution	2000 μg/mL in methylene chloride	-	48285-U	1 mL
Thiophanate	-	-	N13571-1G	1 g
Thiophanate-methyl	-	-	45688-250MG	250 mg
Thiosultap disodium	-	-	32994-100MG	100 mg
Thiram	-	-	45689-250MG	250 mg
Tiadinil	-	-	37076-25MG	25 mg
Tolclofos-methyl	-	-	31209-250MG	250 mg
Tolfenpyrad	-	-	37043-25MG	25 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Tolyfluanid	-	-	32060-250MG	250 mg
Topramezone	-	-	34225-100MG	100 mg
Toxaphen component 26 solution	5 ng/μL in isooctane	-	31688-1.25ML	1.25 mL
Toxaphen component 50 solution	5 ng/μL in isooctane	-	31695-1.25ML	1.25 mL
Toxaphen component 62 solution	5 ng/μL in isooctane	-	46147-1.25ML	1.25 mL
Toxaphene	-	-	N13586-250MG	250 mg
Toxaphene solution	1000 μg/mL in isooctane	-	48103	1 mL
Toxaphene solution	2000 μg/mL in methanol	-	48700-U	1 mL
Toxaphene solution	5000 μg/mL in methanol	-	40111	1 mL
Toxaphen multi standard solution 3	-	-	46151-1.25ML	1.25 mL
2,4,5-TP methyl ester	-	-	45692-250MG	250 mg
2,4,5-TP methyl ester solution	200 μg/mL in hexane	-	47987-U	1 mL
2,4,5-TP (Silvex®) solution	100 μg/mL in methanol	-	47897	1 mL
Tralkoxidym	-	-	36536-250MG	250 mg
Tralomethrin	-	-	32531-50MG	50 mg
Tralopyril	-	-	32418-100MG	100 mg
Transfluthrin	-	-	46114-250MG	250 mg
Triadimefon	-	-	N13636-500MG	500 mg
Triadimefon	-	-	45693-250MG	250 mg
Triadimenol	-	-	46138-250MG	250 mg
Triadimenol A	-	-	45694-250MG	250 mg
Triallat	-	-	N13628-1G	1 g
Triallat	-	-	45695-250MG	250 mg
Triasulfuron	-	-	33383-100MG	100 mg
Triazophos	-	-	45696-50MG	50 mg
			45696-250MG	250 mg
Triazoxid	-	-	33373-100MG	100 mg
Tribenuron-methyl	-	-	46013-100MG	100 mg
2,4,6-Tribromoanisole	-	-	33489-100MG-R	100 mg
1,2,4-Tributyl phosphorotrithioate	-	-	N13194-250MG	250 mg
Trichlorfon	-	-	45698-250MG-R	250 mg
Trichlorfon	-	-	N11843-1G	1 g
Trichloroacetic acid	-	-	31267-250MG	250 mg
2,4,5-Trichloroaniline	-	-	35828-1G	1 g
2,4,6-Trichloroaniline	-	-	35996-250MG	250 mg
2,3,4-Trichloroanisole	-	-	33412-100MG-R	100 mg
2,3,6-Trichloroanisole	-	-	36625-25MG	25 mg
2,4,6-Trichloroanisole	-	-	34384-100MG	100 mg
2,4,6-Trichloroanisole-d ₅	-	-	34023-50MG-R	50 mg
1,2,3-Trichlorobenzene	-	-	36742-1G	1 g
1,2,4-Trichlorobenzene	-	-	36627-1G	1 g
1,3,5-Trichlorobenzene	-	-	36555-250MG	250 mg
2,3,6-Trichlorobenzoic acid	-	-	N10605-1G	1 g
1,1,1-Trichloro-2-methyl-2-propanol hemihydrate	-	-	36681-1G	1 g
Trichloronate	-	-	N13657-100MG	100 mg
Trichloronitromethane	-	-	34321-250MG	250 mg
2,3,4-Trichlorophenol	-	-	33393-50MG	50 mg
2,3,5-Trichlorophenol solution	100 ng/μL in acetonitrile	-	34112-2ML	2 mL
2,3,6-Trichlorophenol	-	-	36745-250MG	250 mg
2,4,5-Trichlorophenol	-	-	36513-250MG	250 mg
2,4,6-Trichlorophenol	-	-	36543-250MG	250 mg
			36543-1G	1 g
2-(2,4,5-Trichlorophenoxy)propionic acid	-	-	45691-250MG	250 mg
3,5,6-Trichloro-2-pyridinol	-	-	33972-100MG-R	100 mg
Triclopyr	-	-	32016-250MG	250 mg
Triclopyr 2-butoxyethylester	-	-	36538-100MG	100 mg
Triclosan-methyl	-	-	34228-50MG	50 mg
Tricyclazol	-	-	45808-10MG	10 mg
Tridemorph	-	-	36199-100MG	100 mg
Trietazine	-	-	31761-100MG	100 mg
Trifloxystrobin	-	-	46447-100MG	100 mg
Trifloxysulfuron sodium salt	-	-	33672-100MG-R	100 mg

Environmental Standards

Pesticide Neats and Solutions

Description	Concentration		Cat. No.	Qty
Triflumizole	-	-	32611-100MG	100 mg
Triflumuron	-	-	35029-100MG	100 mg
(±)-4,4,4-Trifluoro-3-(3-indolyl)butyric acid	-	-	34026-50MG-R	50 mg
Trifluralin	-	-	N13689-1G	1 g
Trifluralin	-	-	32061-250MG	250 mg
Trifluralin	-	-	442824	250 mg
Trifluralin solution	100 ng/μL in acetonitrile	-	45913-2ML	2 mL
Triflurosulfuron-methyl	-	-	31717-100MG	100 mg
Triforin	-	-	45701-250MG	250 mg
2,3,5-Trimethacarb	-	-	37874-10MG	10 mg
2,3,5-Trimethylphenol	-	-	34308-250MG	250 mg
2,4,6-Trimethylphenol	-	-	35998-250MG	250 mg
Trimethyltin chloride	-	-	34377-250MG	250 mg
Trinexapac-ethyl	-	-	37898-100MG-R	100 mg
Triticonazole	-	-	34172-100MG	100 mg
Tritosulfuron	-	-	33873-100MG-R	100 mg
Uniconazole	-	-	37044-50MG	50 mg
Valifenalate	-	-	37078-25MG	25 mg
Vamidothion solution	100 ng/μL in acetonitrile	-	32931-2ML	2 mL
Vernolat	-	-	45704-250MG-R	250 mg
Vinclozolin	-	-	N13745-1G	
Vinclozolin	-	-	45705-250MG	250 mg
Warfarin™	-	-	45706-250MG-R	250 mg
(Z)-Metominostrobin	-	-	34229-10MG	10 mg
Zineb	-	-	45707-250MG	250 mg
Ziram	-	-	45708-250MG	250 mg
Zoxamide	-	-	32501-50MG	50 mg

International Standards

Canada

The Ontario Ministry of the Environment has established monitoring of wastewater discharges by nine industrial sectors as part of the Municipal/Industrial Strategy for Abatement (MISA) program. Analytes that must be monitored under MISA regulations include 34 volatile and 70 semivolatile organic compounds. Because analyses of these compounds at low levels in waste effluents can be complex, high-quality standards are essential for routine daily calibration of instruments. We have developed these analytical standard solutions for analytes monitored under the May 1990 MISA regulations.

MISA Group 16 - Halogenated Organics

Description	Concentration		Cat. No.	Qty
standard type calibration				
MISA Group 16 Halogen Volatile Organic Mix	2000 μg/mL each component in methanol	-	48132	1 mL
	<i>Bromoform</i>	<i>1,2-Dichloroethane</i>		
	<i>Carbon tetrachloride</i>	<i>1,2-Dichloropropane</i>		
	<i>Chlorobenzene</i>	<i>cis-1,3-Dichloropropene</i>		
	<i>Chloroform</i>	<i>trans-1,3-Dichloropropene</i>		
	<i>1,2-Dibromoethane</i>	<i>1,1,2,2-Tetrachloroethane</i>		
	<i>1,2-Dichlorobenzene</i>	<i>Tetrachloroethylene</i>		
	<i>1,3-Dichlorobenzene</i>	<i>1,1,2-Trichloroethane</i>		
	<i>1,4-Dichlorobenzene</i>	<i>Trichloroethylene</i>		
	<i>1,1-Dichloroethane</i>			
EPA VOC Mix 5	2000 μg/mL each component in methanol	SS	458797 48797	1 mL 1 mL
	<i>Bromodichloromethane</i>	<i>cis-1,2-Dichloroethylene</i>		
	<i>Dibromochloromethane</i>	<i>trans-1,2-Dichloroethylene</i>		
	<i>1,1-Dichloroethylene</i>	<i>Dichloromethane</i>		
EPA VOC Mix 6	2000 μg/mL each component in methanol	SS	458799 48799-U	1.5 mL 1.5 mL
	<i>Bromomethane</i>	<i>Dichlorodifluoromethane</i>		
	<i>Chloroethane</i>	<i>Trichlorofluoromethane</i>		
	<i>Chloromethane</i>	<i>Vinyl chloride</i>		

International Standards

Canada

MISA Group 17 - Nonhalogenated Organics

Description	Concentration	Cat. No.	Qty
standard type calibration			
MISA Group 17 Non-Halogen Organic Mix	2000 µg/mL each component in methanol	48133	1 mL
	<i>Benzene</i> <i>Ethylbenzene</i> <i>Styrene</i> <i>Toluene</i>	<i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i>	

MISA Group 18 - Water Soluble Volatile Compounds

Description	Concentration	Cat. No.	Qty
standard type calibration			
Acrolein	-	SS 458501 48501	100 mg 5 g
Acrylonitrile	-	SS 48502	1 g

MISA Group 19 - Base Neutral Extractables

Description	Concentration	Cat. No.	Qty
standard type calibration			
MISA Group 19 Base-Neutral Extractables Mix B	2000 µg/mL each component in methylene chloride	- 48135	1 mL
	<i>Benzyl butyl phthalate</i> <i>Biphenyl</i> <i>Bis(2-ethylhexyl) phthalate</i> <i>Dibutyl phthalate</i> <i>2,4-Dinitrotoluene</i> <i>2,6-Dinitrotoluene</i>	<i>Di-n-octyl phthalate</i> <i>Diphenyl ether</i> <i>Indole</i> <i>N-Nitrosodiphenylamine</i> <i>N-Nitrosodi-n-propylamine</i> <i>Perylene</i>	
EPA TCL Polynuclear Aromatic Hydrocarbons Mix	2000 µg/mL each component in methylene chloride: benzene (1:1)	SS 48905-U 458905	1 mL 1 mL
	<i>Acenaphthene</i> <i>Acenaphthylene</i> <i>Anthracene</i> <i>Benzo[a]anthracene</i> <i>Benzo[b]fluoranthene</i> <i>Benzo[k]fluoranthene</i> <i>Benzo[ghi]perylene</i> <i>Benzo[a]pyrene</i>	<i>Chrysene</i> <i>Dibenz[a,h]anthracene</i> <i>Fluoranthene</i> <i>Fluorene</i> <i>Indeno[1,2,3-cd]pyrene</i> <i>Naphthalene</i> <i>Phenanthrene</i> <i>Pyrene</i>	


MISA Group 20 - Phenolic Extractables

Description	Concentration	Cat. No.	Qty
standard type calibration			
MISA Group 20 Phenols Mix A	2000 µg/mL each component in methanol	48130-U	1 mL
	<i>o-Cresol</i> <i>p-Cresol</i> <i>2,6-Dichlorophenol</i> <i>2,4-Dimethylphenol</i> <i>2-Methyl-4,6-dinitrophenol</i>	<i>2,3,4,6-Tetrachlorophenol</i> <i>2,3,5,6-Tetrachlorophenol</i> <i>2,3,4-Trichlorophenol</i> <i>2,3,5-Trichlorophenol</i> <i>2,4,5-Trichlorophenol</i>	
MISA Group 20 Phenols Mix B	2000 µg/mL each component in methanol	48131	1 mL
	<i>4-Chloro-3-methylphenol</i> <i>2-Chlorophenol</i> <i>m-Cresol</i> <i>2,4-Dichlorophenol</i> <i>2,4-Dinitrophenol</i>	<i>4-Nitrophenol</i> <i>Pentachlorophenol</i> <i>Phenol</i> <i>2,3,4,5-Tetrachlorophenol</i> <i>2,4,6-Trichlorophenol</i>	

International Standards

Canada

MISA Group 22 - Organochlorine Pesticides

Description	Concentration		Cat. No.	Qty
standard type calibration				
EPA TCL Pesticides Mix	2000 µg/mL each component in hexane: toluene (1:1)		458913 48913	1 mL 1 mL
	<i>Aldrin</i> <i>α-BHC</i> <i>β-BHC</i> <i>Lindane</i> <i>δ-BHC</i> <i>1,1-Dichloro-2,2-bis(4-chlorophenyl)ethane</i> <i>4,4'-DDE</i> <i>4,4'-DDT</i> <i>Dieldrin</i>	<i>α-Endosulfan</i> <i>β-Endosulfan</i> <i>Endosulfan sulfate</i> <i>Endrin</i> <i>Endrin aldehyde</i> <i>Endrin ketone</i> <i>Heptachlor</i> <i>Heptachlor exo-epoxide</i> <i>Methoxychlor</i>		
Hexachlorobenzene	-	-	48508	1000 mg
Hexachlorobenzene solution	1000 µg/mL in acetone	-	40008	1 mL

MISA Group 23 - Chlorinated Hydrocarbons

Description	Concentration		Cat. No.	Qty
standard type calibration				
MISA Group 23 Chlorinated Hydrocarbon Mix	2000 µg/mL each component in methylene chloride		48136	1 mL
	<i>Hexachlorobenzene</i> <i>Hexachloro-1,3-butadiene</i> <i>Hexachlorocyclopentadiene</i> <i>Hexachloroethane</i> <i>Pentachlorobenzene</i> <i>1,2,3,4-Tetrachlorobenzene</i>	<i>1,2,3,5-Tetrachlorobenzene</i> <i>1,2,4,5-Tetrachlorobenzene</i> <i>1,2,3-Trichlorobenzene</i> <i>1,2,4-Trichlorobenzene</i> <i>2,4,5-Trichlorotoluene</i>		

MISA Group 27 - Polychlorinated Biphenyls

Description	Concentration		Cat. No.	Qty
standard type calibration				
Aroclor 1016 solution	200 µg/mL in methanol		48701	1 mL
Aroclor 1221 solution	200 µg/mL in methanol		48705	1 mL
Aroclor 1232 solution	200 µg/mL in methanol		48702	1 mL
Aroclor 1242 solution	200 µg/mL in methanol		48706	1 mL
Aroclor 1248 solution	200 µg/mL in methanol		48703	1 mL
Aroclor 1254 solution	200 µg/mL in methanol		48707	1 mL
Aroclor 1260 solution	200 µg/mL in methanol		48704	1 mL
PCB Kit 3	200 µg/mL each component in methanol		48825	1 kit
	<i>Aroclor 1016 solution (Supelco 48701), 1 mL</i> <i>Aroclor 1221 solution (Supelco 48705), 1 mL</i> <i>Aroclor 1232 solution (Supelco 48702), 1 mL</i> <i>Aroclor 1242 solution (Supelco 48706), 1 mL</i>	<i>Aroclor 1248 solution (Supelco 48703), 1 mL</i> <i>Aroclor 1254 solution (Supelco 48707), 1 mL</i> <i>Aroclor 1260 solution (Supelco 48704), 1 mL</i>		
PCB kit - high conc.	1000 µg/mL in isoctane (each solution)		44803	1 kit
	<i>Aroclor 1232 solution (Supelco 44805), 1 mL</i> <i>Aroclor 1242 solution (Supelco 44806), 1 mL</i> <i>Aroclor 1248 solution (Supelco 44807), 1 mL</i>	<i>Aroclor 1254 solution (Supelco 44808), 1 mL</i> <i>Aroclor 1260 solution (Supelco 44809), 1 mL</i> <i>Aroclor 1262 solution (Supelco 44810), 1 mL</i>		
PCB kit - low conc.	1 µg/mL in isoctane		44804	1 kit
	<i>Aroclor 1232 solution (Supelco 44811), 1 mL</i> <i>Aroclor 1242 solution (Supelco 44812), 1 mL</i> <i>Aroclor 1248 solution (Supelco 44813), 1 mL</i>	<i>Aroclor 1254 solution (Supelco 44814), 1 mL</i> <i>Aroclor 1260 solution (Supelco 44815), 1 mL</i> <i>Aroclor 1262 solution (Supelco 44816), 1 mL</i>		

International Standards

Canada

Single Component Standards for MISA Analyses

Description	Concentration	Cat. No.	Qty
standard type calibration			
Biphenyl solution	2000 µg/mL in methanol	48161	1 mL
1-Chloronaphthalene solution	2000 µg/mL in methanol	48159	1 mL
Diphenyl ether solution	2000 µg/mL in methanol	48155	1 mL
Indole solution	2000 µg/mL in methanol	48157	1 mL
1-Methylnaphthalene solution	2000 µg/mL in methanol	48162	1 mL
1,2,3,4-Tetrachlorobenzene solution	2000 µg/mL in methanol	48158	1 mL
1,2,3,5-Tetrachlorobenzene solution	2000 µg/mL in methanol	48156	1 mL
2,3,4,5-Tetrachlorophenol solution	2000 µg/mL in methanol	48153	1 mL
2,3,5,6-Tetrachlorophenol solution	2000 µg/mL in methanol	48152	1 mL
2,3,4-Trichlorophenol solution	2000 µg/mL in methanol	48154	1 mL
2,4,5-Trichlorotoluene solution	2000 µg/mL in methanol	48150	1 mL
CEN PCB Congener Mix-1	10 µg/mL each component in heptane	47927	1 mL
	2,2',3,4,4',5,5'-Heptachlorobiphenyl 2,2',3,4,4',5'-Hexachlorobiphenyl 2,2',3,4',5',6'-Hexachlorobiphenyl 2,2',4,4',5,5'-Hexachlorobiphenyl 2,2',3,3',4,4',5,5'-Octachlorobiphenyl 2,2',4,5,5'-Pentachlorobiphenyl	2,3',4,4',5'-Pentachlorobiphenyl 2,2',3,5'-Tetrachlorobiphenyl 2,2',5,5'-Tetrachlorobiphenyl 2,2',5-Trichlorobiphenyl 2,4,4'-Trichlorobiphenyl 2,4',5-Trichlorobiphenyl	

European Mixes

DNPH Mixes - The following dinitrophenylhydrazine (DNPH) standards were developed in response to European requests for working and calibration check standards for the ambient air analysis of carbonyl emissions from automobile exhaust. Methods for this analysis are equivalent to California Air Resources Board 1004 (Sacramento, CA, USA). Concentrations are of the equivalent carbonyl quantity before derivatization. The Certificate of Analysis accompanying each of these products states both DNPH-derivatized and non-derivatized concentrations.

PAH Mix - The PAH Calibration Mix (Cat. No. 47940-U) was developed for determining polynuclear aromatic hydrocarbons (PAHs) by HPLC, using fluorescence detection, for the following methods:

- DIN Method 38407, part 8 (for PAHs in drinking water, groundwater, and surface water)
- DIN NAW (Normenausschuss Wasserwesen) working group draft method DIN 38407, part 18 (for PAHs in water)
- DIN 3814, part 21, draft method (for PAHs in sediment and sludge)

Description	Concentration	Cat. No.	Qty
standard type calibration			
Carbonyl-DNPH Mix 1	20 µg/mL in acetonitrile (except where indicated; aldehyde & ketone equivalents)	47672-U	1 mL
	Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone 2-Butanone-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone	Formaldehyde-2,4-dinitrophenylhydrazone, 40 µg/mL Hexaldehyde-2,4-dinitrophenylhydrazone Methacrolein-2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone p-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	
Carbonyl-DNPH Mix 2	2 µg/mL in acetonitrile (except where indicated; aldehyde & ketone equivalents)	47671-U	1 mL
	Acetaldehyde-2,4-dinitrophenylhydrazone Acetone-2,4-dinitrophenylhydrazone Acrolein-2,4-dinitrophenylhydrazone Benzaldehyde-2,4-dinitrophenylhydrazone 2-Butanone-2,4-dinitrophenylhydrazone Butyraldehyde-2,4-dinitrophenylhydrazone Crotonaldehyde-2,4-dinitrophenylhydrazone	Cyclohexanone 2,4-dinitrophenylhydrazone, 5 µg/mL Formaldehyde-2,4-dinitrophenylhydrazone, 4 µg/ mL Hexaldehyde-2,4-dinitrophenylhydrazone Methacrolein-2,4-dinitrophenylhydrazone Propionaldehyde-2,4-dinitrophenylhydrazone p-Tolualdehyde 2,4-dinitrophenylhydrazone Valeraldehyde-2,4-dinitrophenylhydrazone	
Cyclohexanone-2,4-DNPH solution	500 µg/mL in acetonitrile (as ketone equivalent)	47673-U	1 mL
PAH Calibration Mix	10 µg/mL each component in acetonitrile	47940-U	1 mL
	Acenaphthene Acenaphthylene Anthracene Benz[a]anthracene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzo[ghi]perylene Benzo[a]pyrene	Chrysene Dibenz[a,h]anthracene Fluoranthene Fluorene Indeno[1,2,3-cd]pyrene Naphthalene Phenanthrene Pyrene	

International Standards

Korean Drinking Water Regulations

Korean Drinking Water Regulations

Korean calibration reference standards are quantitative mixtures of volatile organic chemicals and pesticides of known concern. These formulations are intended for the calibration of a gas chromatographic system equipped with a capillary column and an appropriate detector. Products are packaged in amber ampules to prevent photodegradation and solvent or analyte loss. Five ampules are packaged per product. Each product includes a Certificate of Analysis. The following products were introduced to support laboratories conducting drinking water analyses under Korean Drinking Water Regulations (KDWR).

Description	Concentration	Cat. No.	Qty
KDWR Pesticides Kit	1000 µg/mL each component in methanol <i>1-Naphthyl-N-methylcarbamate</i> <i>Diazinon</i> <i>Fenitrothion</i>	<i>Malathion</i> <i>Parathion</i> 47627-U	1 kit
KDWR VOC Mix A	100 µg/mL each component in methanol <i>Benzene</i> <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromochloromethane</i> <i>1,1-Dichloroethylene</i> <i>Dichloromethane</i> <i>Ethylbenzene</i>	<i>Phenol</i> <i>Tetrachloroethylene</i> <i>Toluene</i> <i>1,1,1-Trichloroethane</i> <i>Trichloroethylene</i> <i>o-Xylene</i> <i>m-Xylene</i> <i>p-Xylene</i> 506575	5 × 1 mL
KDWR VOC Mix B	100 µg/mL each component in methanol <i>Bromodichloromethane</i> <i>Bromoform</i> <i>Carbon tetrachloride</i> <i>Chloroform</i> <i>Dibromochloromethane</i>	<i>1,1-Dichloroethylene</i> <i>Dichloromethane</i> <i>Tetrachloroethylene</i> <i>1,1,1-Trichloroethane</i> <i>Trichloroethylene</i> 506583	5 × 1 mL

Food & Beverage Standards

Natural Products

Natural plant extracts and their individual constituents are used in a variety of consumer goods including flavorings, perfumes and homeopathic remedies. Sigma-Aldrich, through its Fluka brand, offers several natural product reference materials for preparing your own qualitative and quantitative solutions. Because these reference materials are derived from natural extracts, purities may vary.

CAS No.	Compound	Cat. No.	Qty
140-67-0	4-Allylanisole, analytical standard, for terpene analysis	05818-1ML 05818-5ML	1 mL 5 mL
638-95-9	α-Amyrin, analytical standard, for terpene analysis	53017-10MG-F	10 mg
559-70-6	β-Amyrin, analytical standard, for terpene analysis	09236-10MG-F	10 mg
4180-23-8	<i>trans</i> -Anethole, analytical standard, for terpene analysis	10368-1ML 10368-5ML	1 mL 5 mL
578-74-5	Apigenin 7-glucoside, analytical standard	44692-5MG-F 44692-25MG-F	5 mg 25 mg
2883-98-9	α-Asarone, analytical standard, for terpene analysis	11107-1G	1 g
16830-15-2	Asiaticoside, analytical standard	43191-1MG-F 43191-5MG-F	1 mg 5 mg
479-98-1	Aucubin, analytical standard	55561-5MG-F 55561-25MG-F	5 mg 25 mg
3061-75-4	Behenamide, analytical standard	16879-100MG-F	100 mg
7380-40-7	Bergamottin, analytical standard, for terpene analysis	01338-5MG-F	5 mg
22567-36-8	Bisabolol oxide A, analytical standard	59761-10MG	10 mg
464-45-9	(-)-Borneol, analytical standard, for terpene analysis	15598-1G 15598-5G	1 g 5 g
464-48-2	(-)-Camphor, analytical standard	21293-1G	1 g
498-15-7	(+)-3-Carene, analytical standard, for terpene analysis	21986-5ML 21986-25ML	5 mL 25 mL
2244-16-8	(+)-Carvone, analytical standard, for terpene analysis	22070-1ML 22070-25ML 22070-100ML	1 mL 25 mL 100 mL
470-67-7	1,4-Cineole, analytical standard, for terpene analysis	27393-1ML-F 27393-5ML-F	1 mL 5 mL
10281-55-7	(+)-β-Citronellene, analytical standard, for terpene analysis	27475-1ML-F 27475-5ML-F	1 mL 5 mL
7540-51-4	(-)-β-Citronellol, analytical standard, for terpene analysis	27483-1ML-F 27483-5ML-F	1 mL 5 mL
246021-20-5	9,11-Didehydroestriol, purum, ≥97.0% (HPLC)	28078-5MG-F	5 mg

Food & Beverage Standards

Natural Products

CAS No.	Compound	Cat. No.	Qty
1128-08-1	Dihydrojasnone, analytical standard, for terpene analysis	00138-1ML	1 mL
490-46-0	(-)-Epicatechin, purum, ≥95.0% (HPLC)	39263-5MG-F	5 mg
989-51-5	(-)-Epigallocatechin gallate, purum, ≥97.0% (HPLC)	50299-1MG-F	1 mg
140-67-0	Estragole, analytical standard, for environmental analysis	34098-1ML	1 mL
470-82-6	Eucalyptol, analytical standard, for terpene analysis	29210-1ML	1 mL
18794-84-8	<i>trans</i> -β-Farnesene, analytical standard	73492-1ML-F	1 mL
2217-02-9	(+)-Fenchol, analytical standard, for terpene analysis	46198-1G-F	1 g
4695-62-9	(+)-Fenchone, analytical standard, for terpene analysis	46208-1ML-F 46208-5ML-F 46208-25ML-F	1 mL 5 mL 25 mL
2948-76-7	Fisetinidin chloride, analytical standard	42724-1MG-F 42724-5MG-F	1 mg 5 mg
106-24-1	Geraniol, analytical standard, for terpene analysis	48798-1ML 48798-5ML	1 mL 5 mL
105-87-3	Geranyl acetate, analytical standard, for terpene analysis	45896-1ML-F	1 mL
22910-60-7	Ginkgolic acid C15:1, analytical standard	75741-5MG	5 mg
15291-75-5	Ginkgolide A, analytical standard	51863-10MG-F	10 mg
107438-79-9	Ginkgolide J, analytical standard	89556-5MG	5 mg
52286-58-5	Ginsenoside Rf, analytical standard	65839-5MG	5 mg
22427-39-0	Ginsenoside Rg1, analytical standard, for terpene analysis	68317-5MG	5 mg
22427-39-0	Ginsenoside Rg1 (saponin of Panax ginseng), 1000 µg/mL in methanol	18826-1.2ML	1.2 mL
489-86-1	(-)-Guaiaol, analytical standard, for terpene analysis	29242-250MG	250 mg
19210-12-9	Harpagoside, analytical standard	68527-10MG	10 mg
14216-03-6	Hederacoside C, analytical standard	97151-50MG-F	50 mg
80923-99-5	(22R)-30-Homohop-17(21)ene solution, 0.05 mg/mL in isooctane, analytical standard	41133-0.5ML	0.5 mL
13849-96-2	17α(H),21β(H)-Hopane solution, 0.1 mg/mL in isooctane, analytical standard	90656-1ML	1 mL
471-62-5	17β(H),21β(H)-Hopane solution, 0.1 mg/mL in isooctane, analytical standard	07562-1ML	1 mL
1615-91-4	Hop-22(29)-ene solution, 0.1 mg/mL in isooctane, analytical standard	04626-1ML	1 mL
89-79-2	(-)-Isopulegol, analytical standard, for terpene analysis	59770-5ML	5 mL
104870-56-6	(+)-Isopulegol, analytical standard, for terpene analysis	59765-1ML	1 mL
3155-48-4	DL-Kavain, analytical standard	59780-500MG-F 59780-5G-F	500 mg 5 g
18719-76-1	Keracyanin chloride, analytical standard	36428-1MG-F 36428-5MG-F	1 mg 5 mg
470-69-9	1-Kestose, analytical standard	72555-25MG 72555-100MG	25 mg 100 mg
5989-27-5	(R)-(+)-Limonene, analytical standard, for terpene analysis	62118-1ML 62118-5ML 62118-25ML	1 mL 5 mL 25 mL
5989-54-8	(S)-(-)-Limonene, analytical standard, for terpene analysis	62128-1ML 62128-5ML	1 mL 5 mL
126-91-0	(-)-Linalool, analytical standard, for terpene analysis	74856-1ML-F 74856-5ML-F	1 mL 5 mL
18524-94-2	Loganin, analytical standard	36483-10MG-F	10 mg
108-48-5	2,6-Lutidine, analytical standard	04991-5ML-F	5 mL
1195-31-9	(+)- <i>p</i> -Menth-1-ene, analytical standard, for terpene analysis	63655-1ML	1 mL
17957-94-7	(+)-Menthofuran, analytical standard, for terpene analysis	63661-1ML-F 63661-5ML-F	1 mL 5 mL
2216-51-5	(-)-Menthol, analytical standard, for terpene analysis	63660-1G 63660-100G 63660-500G	1 g 100 g 500 g
14073-97-3	(-)-Menthone, analytical standard, for terpene analysis	63677-5ML 63677-25ML	5 mL 25 mL
3391-87-5	(+)-Menthone, analytical standard, for terpene analysis	63675-1ML-F	1 mL
5157-89-1	(1S)-(+)-Menthyl acetate, analytical standard, for terpene analysis	45987-1ML-F 45987-5ML-F	1 mL 5 mL
108214-28-4	16-O-Methylcafestol, analytical standard	68328-2MG	2 mg
123-35-3	Myrcene, analytical standard	64643-100MG-F 64643-500MG-F	100 mg 500 mg
544-63-8	Myristic acid, analytical standard	70079-5G	5 g
607-91-0	Myristicin, analytical standard	09237-10MG-F 09237-50MG-F	10 mg 50 mg
51152-12-6	(-)- <i>cis</i> -Myrtanol, analytical standard, for terpene analysis	70154-10ML	10 mL
132203-71-5	(+)- <i>trans</i> -Myrtanol, analytical standard, for terpene analysis	70117-1ML	1 mL
19894-97-4	(-)-Myrtenol, analytical standard, for terpene analysis	70158-1ML	1 mL
21681-17-4	Neohop-13(18)ene solution, 0.1 mg/mL in isooctane, analytical standard	42689-1ML	1 mL
20747-49-3	(-)-Neomenthol, analytical standard, for terpene analysis	72139	

Food & Beverage Standards

Natural Products

CAS No.	Compound	Cat. No.	Qty
40716-66-3	<i>trans</i> -Nerolidol, analytical standard	18143-100MG-F	100 mg
141-12-8	Neryl acetate, analytical standard, for terpene analysis	46015-1ML	1 mL
3258-87-5	17 β (H),21 α (H)-30-Norhopane solution, 0.1 mg/mL in isooctane, analytical standard	90102-1ML	1 mL
10379-57-4	30-Norhop-17(21)ene solution, 0.1 mg/mL in isooctane, analytical standard	03707-1ML	1 mL
72633-85-3	30-Norneohop-13(18)-ene solution, 0.05 mg/mL in isooctane, analytical standard	44133-0.5ML	0.5 mL
18457-55-1	(-)-Perillyl alcohol, analytical standard, for terpene analysis	77311-1ML	1 mL
4795-86-2	(1 <i>R</i>)-(+)- <i>cis</i> -Pinane, analytical standard, for terpene analysis	80593-5ML	5 mL
10281-53-5	(1 <i>S</i>)-(-)- <i>trans</i> -Pinane, analytical standard, for terpene analysis	80595-1ML	1 mL
7785-26-4	(-)- α -Pinene, analytical standard, for terpene analysis	80599-1ML 80599-5ML	1 mL 5 mL
18172-67-3	(-)- β -Pinene, analytical standard, for terpene analysis	80609-1ML 80609-5ML	1 mL 5 mL
7785-70-8	(+)- α -Pinene, analytical standard, for terpene analysis	80605-1ML 80605-5ML	1 mL 5 mL
20315-25-7	Procyanidin B1, analytical standard	19542-1MG-F	1 mg
29106-49-8	Procyanidin B2, analytical standard	42157-1MG-F	1 mg
501-36-0	Resveratrol, analytical standard	34092-100MG	100 mg
90-19-7	Rhamnetin, analytical standard	17799-1MG-F 17799-5MG-F	1 mg 5 mg
3020-09-5	Robinetinidin chloride, analytical standard	42046-1MG-F	1 mg
16409-43-1	(-)-Rose oxide, analytical standard, for terpene analysis	83917-1ML	1 mL
16409-43-1	(+)-Rose oxide, analytical standard, for terpene analysis	83915-1ML	1 mL
250249-75-3	Rutin trihydrate, analytical standard	78095-25MG-F 78095-100MG-F	25 mg 100 mg
546-79-2	Sabinene hydrate, analytical standard	96573-500MG-F 96573-5G-F	500 mg 5 g
35671-15-9	(+)-Santolina alcohol, analytical standard, for terpene analysis	84500-1ML	1 mL
19351-63-4	Secologanin, analytical standard	50741-5MG-F	5 mg
81-27-6	Sennoside A, analytical standard	68909-5MG-F 68909-25MG-F	5 mg 25 mg
128-57-4	Sennoside B, analytical standard	75412-25MG-F	25 mg
480-18-2	Taxifolin, analytical standard	78666-25MG-F 78666-100MG-F	25 mg 100 mg
565-50-4	<i>trans</i> -Terpin, analytical standard, for terpene analysis, for GC	09828-1G	1 g
99-85-4	γ -Terpinene, analytical standard, for terpene analysis	86476-1ML 86476-5ML	1 mL 5 mL
-	Thujone Standard Mixture, analytical standard, for food analysis	04314-1ML-F 04314-5ML-F	1 mL 5 mL
53584-59-1	17 α (H)-22,29,30-Trisnorhopan solution, 0.1 mg/mL in isooctane, analytical standard	61695-1ML	1 mL
63543-60-2	22,29,30-Trisnorneohop-13(18)-ene solution, 0.05 mg/mL in isooctane, analytical standard	16411-0.5ML	0.5 mL
77-52-1	Ursolic acid, analytical standard	89797-5MG-F 89797-25MG-F	5 mg 25 mg
1196-01-6	(1 <i>S</i>)-(-)-Verbenone, analytical standard, for terpene analysis	94882-1ML 94882-5ML	1 mL 5 mL
64820-99-1	Vitexin 2- <i>O</i> -rhamnoside, analytical standard	55608-5MG-F 55608-25MG-F	5 mg 25 mg

Antimicrobials/Preservatives

CAS No.	Compound	Cat. No.	Qty
65-85-0	Benzoic acid, analytical standard	47849	1000 mg
99-76-3	Methyl Paraben, analytical standard	47889	1000 mg
24634-61-5	Potassium Sorbate, analytical standard	47848	1000 mg
532-32-1	Sodium benzoate, analytical standard	47850	1000 mg
110-44-1	Sorbic acid, analytical standard	47845	1000 mg

Food & Beverage Standards

Antioxidants

Antioxidants

Description	Concentration	Cat. No.	Qty
Phenolic Antioxidant Kit 2	(individually packaged in quantities indicated) <i>Butylated hydroxyanisole, 500 mg</i> <i>tert-Butylhydroquinone, 500 mg</i> <i>2,6-Di-tert-butyl-4-hydroxymethylphenol, 500 mg</i> <i>3,5-Di-tert-butyl-4-hydroxytoluene, 500 mg</i> <i>Ethoxyquin, 500 mg</i>	<i>Lauryl gallate, 500 mg</i> <i>Nordihydroguaiaretic acid, 500 mg</i> <i>Octyl gallate, 500 mg</i> <i>Propyl gallate, 500 mg</i>	40048-U 1 kit
3,5-Di-tert-4-butylhydroxytoluene (BHT)	-	47168	500 mg

Carbohydrates/Organic Acids/Sugar Alcohols

Carbohydrates

Prepared, tested, and individually packaged using rigorous manufacturing procedures.

Description	Concentration	Cat. No.	Qty
Monosaccharides Kit	(individually packaged in quantities indicated) <i>D-(-)Arabinose, 500 mg</i> <i>Fructose, 500 mg</i> <i>D-(+)Galactose, 500 mg</i> <i>D-(+)Glucose, mixed anomers (47249), 500 mg</i>	<i>D-(+)Mannose (mixed anomers), 500 mg</i> <i>D-(-)Ribose, 500 mg</i> <i>D-(+)Xylose, 500 mg</i>	47267 1 kit
Disaccharides Kit	(individually packaged in quantities indicated) <i>Isomaltose (mixed anomers), 100 mg</i> <i>α-Lactose, 500 mg</i>	<i>Maltose (47288), 500 mg</i> <i>Sucrose (47289), 500 mg</i>	47268-U 1 kit
Oligosaccharides Kit	(individually packaged in quantities indicated) <i>Maltoheptaose, Dp7 (47872), 100 mg</i> <i>Maltohexaose, Dp6 (47873), 100 mg</i> <i>Maltopentaose, Dp5 (47876), 100 mg</i> <i>Maltotetraose, Dp4 (47877), 100 mg</i> <i>Stachyose, Dp4, 100 mg</i>	<i>Maltotriose, Dp3, 100 mg</i> <i>D-(+)Melezitose, Dp3, 100 mg</i> <i>D-(+)Raffinose, Dp3, 100 mg</i> <i>Isomaltotriose, Dp3 (47884), 100 mg</i>	47265 1 kit
Organic Acids Kit	(individually packaged) <i>Acetic acid, 500 mg</i> <i>Adipic acid, 500 mg</i> <i>L-Ascorbic acid, 500 mg</i> <i>Benzoic acid, 500 mg</i> <i>Butyric acid, 500 mg</i> <i>Citric acid, 500 mg</i> <i>Isobutyric acid, 500 mg</i> <i>Formic acid, 500 mg</i> <i>Fumaric acid, 500 mg</i> <i>L-(+)-Lactic acid, 100 mg</i> <i>DL-Isocitric acid trisodium salt hydrate, 100 mg</i>	<i>Maleic acid, 500 mg</i> <i>Malonic acid, 500 mg</i> <i>D-(+)-Malic acid, 100 mg</i> <i>Oxalic acid, 500 mg</i> <i>Phytic acid, 500 mg</i> <i>Propionic acid, 500 mg</i> <i>(-)Quinic acid, 500 mg</i> <i>Succinic acid, 500 mg</i> <i>Shikimic acid, 100 mg</i> <i>D-(-)-Tartaric acid, 500 mg</i>	47264 1 kit
Sugar Alcohol Kit	(individually packaged in quantities indicated) <i>D-(+)Arabitol, 500 mg</i> <i>Dulcitol (Galactitol), 500 mg</i> <i>iso-Erythritol, 500 mg</i> <i>Glycerol, 500 mg</i> <i>Maltitol, 500 mg</i>	<i>D-Mannitol, 500 mg</i> <i>Ribitol (Adonitol), 500 mg</i> <i>D-Sorbitol, 500 mg</i> <i>Xylitol, 500 mg</i>	47266 1 kit

Flavenoids/Polyphenols

Standards are prepared, dispensed, packaged and stored in a manner that minimizes the possibility of chemical degradation and maximizes shelf life. Each standard is supplied with a certificate of analysis. These products can also be custom formulated for your specific application. To learn more about our Custom standards program, please email techservice@sial.com. Or place your request on-line at www.sigma-aldrich.com/standards.

Description	Concentration	Cat. No.	Qty
Catechin solution	2000 µg/mL in methanol	49040-U	0.5 mL
Catechin gallate solution	2000 µg/mL in methanol	49061-U	0.5 mL
Epicatechin solution	2000 µg/mL in methanol	49045-U	0.5 mL
Epicatechin gallate solution	2000 µg/mL in methanol	49060-U	0.5 mL
Epigallocatechin solution	2000 µg/mL in methanol	49037-U	0.5 mL
Epigallocatechin gallate solution	2000 µg/mL in methanol	49044-U	0.5 mL
Gallocatechin solution	2000 µg/mL in methanol	49069-U	0.5 mL
Gallocatechin gallate solution	2000 µg/mL in methanol	49047-U	0.5 mL

Food & Beverage Standards

Food Dyes

Food Dyes

Sigma-Aldrich offers a wide range of reference standards for the accurate detection of regulated dyes. These dyes, although banned in many countries, are still being used illicitly as additives in food products.

CAS No.	Compound	Concentration	Cat. No.	Qty
5413-75-2	Acid Red 73	-	49823-25MG	25 mg
915-67-3	Amaranth	-	87612-25MG	25 mg
514-78-3	Canthaxanthin (trans)	-	32993-10MG	10 mg
1260-17-9	Carminic acid	-	11298-25MG	25 mg
7488-99-5	α -Carotene solution	1 mg/mL in methylene chloride	05784	
6358-53-8	Citrus Red 2	-	89774-25MG	25 mg
2581-69-3	Disperse Orange 1	-	29173-25MG	25 mg
730-40-5	Disperse Orange 3	-	53882-25MG	25 mg
82-28-0	Disperse Orange 11	-	42994-25MG	25 mg
13301-61-6	Disperse Orange 37	-	50323-25MG	25 mg
2872-52-8	Disperse Red 1	-	11074-25MG	25 mg
947601-97-0	Disperse Red 1-d ₃	-	32944-10MG	10 mg
2832-40-8	Disperse Yellow 3	-	11344-25MG	25 mg
947601-96-9	Disperse Yellow 3-d ₃	-	32946-10MG	10 mg
6373-73-5	Disperse Yellow 9	-	38464-25MG	25 mg
7367-79-5	Docosanoic acid tryptamide	-	12094-100MG-F	100 mg
8016-11-3	Epoxidized linseed oil	-	06681-500MG-F 06681-2.5G-F	500 mg 2.5 g
8013-07-8	Epoxidized soya bean oil	-	43956-500MG-F 43956-2.5G-F	500 mg 2.5 g
79873-36-2	Fast Yellow AB	-	93883-25MG	25 mg
6410-10-2	Pararot	-	40446-100MG	100 mg
3761-53-3	Ponceau Xylidine	-	22308-25MG	25 mg
3734-67-6	Red 2G	-	40462-25MG	25 mg
34432-92-3	Solvent Yellow 124	-	49639-50MG	50 mg
842-07-9	Sudan I	-	51383-25MG	25 mg
752211-63-5	Sudan I-d ₅	-	34184-10MG	10 mg
752211-63-5	Sudan I-d ₅ solution	100 ng/ μ L in acetonitrile	34181-2ML	2 mL
3118-97-6	Sudan II	-	07937-25MG	25 mg
85-86-9	Sudan III	-	68562-25MG	25 mg
85-83-6	Sudan IV	-	67386-25MG	25 mg
1014689-18-9	Sudan IV-d ₆	-	34161-10MG	10 mg
2051-85-6	Sudan Orange G	-	43207-25MG	25 mg
1229-55-6	Sudan red G	-	91282-25MG	25 mg
6368-72-5	Sudan Red 7B	-	53373-25MG	25 mg
2783-94-0	Sunset Yellow FCF	-	68775-25MG	25 mg
1934-21-0	Tartrazine	-	03322-25MG	25 mg
152766-94-4	Tetracosanoic acid tryptamide	-	07347-100MG-F	100 mg
2425-85-6	Toluidine Red	-	59659-25MG	25 mg
152766-93-3	Tricosanoic acid tryptamide	-	56924-100MG-F	100 mg

Food & Beverage Standards

Food Packaging Material Residues

Food Packaging Material Residues

The inks and dyes used to produce graphic designs on food packaging materials contain solvents. These solvents can impart off-flavors to food if they are absorbed by the food product. Use the mixtures listed below to monitor for solvent residues in food.

All raws have been screened for identity and purity. A certificate of composition accompanies each standard.

Description	Concentration	Cat. No.	Qty
Residual Solvents in Packaging Material Mixture 1	7.14 % (v/v)	48994-U	1 mL
	1-Butanol 2-Butanol 2-Butanone Butyl acetate Cyclohexane Cyclohexanone Ethanol	2-Ethoxyethanol Ethyl acetate Isobutyl acetate Methanol Methyl acetate 2-Methoxyethyl acetate Toluene	
Residual Solvents in Packaging Material Mixture 2	9.09 % (v/v)	48995-U	1 mL
	2-Ethoxyethyl acetate Isopropyl acetate Propyl acetate 2-Methoxyethanol 1-Methoxy-2-propanol 4-Methyl-2-pentanone	2-Methyl-1-propanol Acetone 1-Propanol 2-Propanol Tetrahydrofuran	

Lipids/FAMES

Lipid Standards

Fatty Acid Methyl Esters (FAMES)

A Word on Nomenclature

Common names are used in this catalog where brevity does not sacrifice clarity. Geneva names are used where possible.

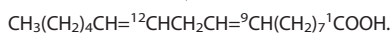
Saturated and unsaturated fatty acid methyl esters are named according to the number of carbon atoms of the parent hydrocarbon chain. Saturated fatty acids are named according to the modified Geneva system, by replacing the terminal "e" of the parent hydrocarbon with the suffix "oic" (e.g., decane to decanoic). The common names of most of these fatty acid methyl esters are also listed.

Unsaturated fatty acid methyl esters are named by replacing the "e" of the corresponding unsaturated hydrocarbon with the suffix "oic" (e.g., decene to decenoic). The number of multiple double bonds is indicated by adding dienoic and so on to the hydrocarbon name. For example, the 18 carbon chain acid with three double bonds is named octadecatrienoic.

Double bonds are also designated by position and geometric configuration. Naturally occurring fatty acids are usually of the cis configuration, unless stated as trans. Octadecenoic acid with the double bond in the nine position has both cis (common name, oleic acid) and trans (elaidic acid) forms. The simplest way to name double-bond positions is to count carbons, starting with the carboxyl carbon, until you reach the double bond. Thus, oleic acid named by the Geneva system is cis-9-octadecenoic acid:



and linoleic acid is cis-9,12-octadecadienoic acid:



In the product descriptions for lipid mixes, chain length, followed by the number of double bonds, is indicated in parentheses after the component names. For example, linolenic acid, which has a chain length of 18 and 3 double bonds, is listed as:

Linolenic acid (18:3)

C18 FAME Isomer Mixes

Qualitative mixtures. Useful for establishing a retention time identification. Data sheet supplied with each ampule.

Description	Concentration	Cat. No.	Qty
Linoleic Acid Methyl Ester Mix, <i>cis/trans</i>	10 mg/mL in methylene chloride (as total weight)	47791	1 mL
	<i>cis</i> -9, <i>cis</i> -12-Octadecadienoic acid methyl ester, ~10 % (w/w) <i>cis</i> -9, <i>trans</i> -12-Octadecadienoic acid methyl ester, ~20 % (w/w)	<i>trans</i> -9, <i>cis</i> -12-Octadecadienoic acid methyl ester, ~20 % (w/w) <i>trans</i> -9, <i>trans</i> -12-Octadecadienoic acid methyl ester, ~50 % (w/w)	
Linolenic Acid Methyl Ester Isomer Mix	10 mg/mL in methylene chloride (as total weight)	47792	1 mL
	<i>cis</i> -9, <i>cis</i> -12, <i>cis</i> -15-Octadecatrienoic acid methyl ester, ~3 % (w/w) <i>cis</i> -9, <i>cis</i> -12, <i>trans</i> -15-Octadecatrienoic acid methyl ester, ~7 % (w/w) <i>cis</i> -9, <i>trans</i> -12, <i>cis</i> -15-Octadecatrienoic acid methyl ester, ~7 % (w/w) <i>cis</i> -9, <i>trans</i> -12, <i>trans</i> -15-Octadecatrienoic acid methyl ester, ~15 % (w/w)	<i>trans</i> -9, <i>cis</i> -12, <i>cis</i> -15-Octadecatrienoic acid methyl ester, ~7 % (w/w) <i>trans</i> -9, <i>cis</i> -12, <i>trans</i> -15-Octadecatrienoic acid methyl ester, ~15 % (w/w) <i>trans</i> -9, <i>trans</i> -12, <i>cis</i> -15-Octadecatrienoic acid methyl ester, ~15 % (w/w) <i>trans</i> -9, <i>trans</i> -12, <i>trans</i> -15-Octadecatrienoic acid methyl ester, ~30 % (w/w)	

Food & Beverage Standards

Lipids/FAMES: *Lipid Standards*

C18 cis/trans Fatty Acids/FAMES

CAS No.	Compound	Cat. No.	Qty
2566-90-7	all-cis-4,7,10,13,16,19-Docosahexaenoic acid methyl ester, 10 mg/mL in heptane, analytical standard	47570-U	1 mL
108698-02-8	cis-7,10,13,16,19-Docosapentaenoic methyl ester, 10 mg/mL in heptane, analytical standard	47563-U	1 mL
2734-47-6	cis-5,8,11,14,17-Eicosapentaenoic acid methyl ester, 10 mg/mL in heptane, analytical standard	47571-U	1 mL
112-63-0	cis-9,cis-12-Octadecadienoic acid methyl ester, 10 mg/mL in heptane, analytical standard	46950-U	1 mL
2566-97-4	trans-9,12-Octadecadienoic acid methyl ester, 10 mg/mL in heptane, analytical standard	46951-U	1 mL
2777-58-4	cis-6-Octadecenoic methyl ester, 10 mg/mL in heptane, analytical standard	47198	1 mL
-	trans-6-Octadecenoic methyl ester, 10 mg/mL in heptane, analytical standard	47199	1 mL
112-62-9	cis-9-Octadecenoic methyl ester, 10 mg/mL in heptane, analytical standard	46902-U	1 mL
1937-62-8	trans-9-Octadecenoic methyl ester, 10 mg/mL in heptane, analytical standard	46903	1 mL
1937-63-9	cis-11-Octadecenoic methyl ester, 10 mg/mL in heptane, analytical standard	46904	1 mL
6198-58-9	trans-11-Octadecenoic methyl ester, 10 mg/mL in heptane, analytical standard	46905-U	1 mL

Characterized Reference Oils

We offer characterized reference oil samples for use as controls or check samples for fatty acid methyl ester (FAME) analyses. These samples provide an excellent means of standardizing your lipid procedures and comparing your results to others. A Certificate of Composition, which includes the chromatographic fingerprint analysis, is provided with each oil sample. Packed in an amber ampule under nitrogen.

CAS No.	Compound	Cat. No.	Qty
120962-03-0	Canola oil, analytical standard	46961	1000 mg
8001-31-8	Coconut oil, analytical standard	46949	1000 mg
8001-30-7	Corn oil, analytical standard	47112-U	1000 mg
8001-29-4	Cottonseed oil, analytical standard	47113	1000 mg
8016-28-2	Lard oil, analytical standard	47115-U	1000 mg
8001-26-1	Linseed (flaxseed) oil, analytical standard	47559-U	1000 mg
8002-50-4	Menhaden fish oil, analytical standard	47116	1000 mg
8001-25-0	Olive oil, analytical standard	47118	1000 mg
8002-75-3	Palm oil, analytical standard	46962	1000 mg
8002-03-7	Peanut oil, analytical standard	47119	1000 mg
8001-23-8	Safflower oil, analytical standard	47120-U	1000 mg
8001-22-7	Soybean oil, analytical standard	47122	1000 mg
8001-21-6	Sunflower seed oil, analytical standard	47123	1000 mg

Quantitative FAME Reference Mixes

The quantitative reference mixes, listed in the table below, are carefully prepared by weight percent. A certificate of analysis is included with each product. Ordering information can be found following the table.

AOCS Animal and Vegetable Reference Mixes

The quantitative mixes listed here conform to the requirements of American Oil Chemists' Society (AOCS) Method Ce 1-62. The composition of each mix is similar to the fatty acid distribution of certain oils (see following table). *Please note that the AOCS mixtures sold under the Supelco brand label are named RM-1, RM-2, etc.*

- AOCS No. 1 (RM-1) – Corn, cottonseed, kapok, poppyseed, rice, safflower, sesame, soybean, sunflower, and walnut oils
- AOCS No. 2 (RM-2) – Hempseed, linseed, perilla, and rubberseed oils
- AOCS No. 3 (RM-3) – Mustard seed, peanut, and rapeseed oils
- Rapeseed Oil Reference Mix – Modern low erucic acid oils
- AOCS No. 4 (RM-4) – Neatsfoot, olive, and teaseed oils
- AOCS No. 5 (RM-5) – Babassu, coconut, ouri-curi, and palm kernel oils
- AOCS No. 6 (RM-6) – Lard, beef tallow, mutton tallow, and palm oil

Food & Beverage Standards

Lipids/FAMES: *Lipid Standards*

Quantitative FAME Reference Mixes (continued)

NHI/NIH Fatty Acid Methyl Ester Reference Mixes

Quantitative standards, identical in composition to those developed and distributed for several years by the National Institutes of Health (Horning, E.C., et al., *J. Lipid Research*, 5:20-27, 1964).

Each mix (see following table) was designed to test part of the chromatographic system to ensure its reliability for quantitative analyses.

GLC Standard Mixes

These quantitative mixes are useful for determining relative retention times and approximating response factors.

Specifications for Quantitative Products

Each mix is carefully prepared by weight percent.

Mix	Cat. No.	Methyl Ester (% Composition by Weight)																						
		C8:0 (caprylate)	C9:0 (nonanoate)	C10:0 (caprate)	C11:0 (undecanoate)	C12:0 (laurate)	C13:0 (tridecanoate)	C14:0 (myristate)	C15:0 (pentadecanoate)	C16:0 (palmitate)	C16:1 (palmitoleate)	C17:0 (heptadecanoate)	C18:0 (stearate)	C18:1 (oleate)	C18:2 (linoleate)	C18:3 (linolenate)**	C19:0 (nonadecanoate)	C20:0 (arachidate)	C20:1 (eicosenoate)	C21:0 (heneicosanoate)	C22:0 (behenate)	C22:1 (erucate)	C24:0 (lignocerate)	
Qty.: 100 mg each, neat Storage Temp.: 0 °C to -20 °C																								
AOCS No. 1 (RM-1)	07006-1AMP								6.0			3.0	35.0	50.0	3.0		3.0							
AOCS No. 2 (RM-2)	07131-1AMP								7.0			5.0	18.0	36.0	34.0									
AOCS No. 3 (RM-3)	07256-1AMP						1.0		4.0			3.0	45.0	15.0	3.0		3.0				3.0	20.0	3.0	
AOCS Low Euric Rapeseed Oil	07756-1AMP						1.0		4.0			3.0	60.0	12.0	5.0		3.0	1.0			3.0	5.0	3.0	
AOCS No. 4 (RM-4)	07381-1AMP								11.0			3.0	80.0	6.0										
AOCS No. 5 (RM-5)	07506-1AMP	7.0		5.0		48.0		15.0	7.0			3.0	12.0	3.0										
AOCS No. 6 (RM-6)	07631-1AMP							2.0	30.0	3.0		14.0	41.0	7.0	3.0									
NHI-C	08256-1AMP	1.5		3.0		6.0		12.0	19.4			24.9						33.2						
NHI-D	08381-1AMP							11.8	23.6	6.9		13.1	44.6											
NHI-F	08631-1AMP							2.5	4.2			7.3						13.6			25.4			47.0
GLC-10	1891-1AMP								20.0			20.0	20.0	20.0	20.0									
GLC-20	1892-1AMP								20.0			20.0	20.0		20.0			20.0						
GLC-30	1893-1AMP	20.0		20.0		20.0		20.0	20.0															
GLC-40	1895-1AMP								25.0			25.0						25.0			25.0			
GLC-50	1894-1AMP									25.0		25.0							25.0				25.0	
GLC-70	1897-1AMP	20.0	20.0	20.0	20.0	20.0																		
GLC-80	1898-1AMP						20.0	20.0	20.0	20.0		20.0												
GLC-90	1896-1AMP						20.0	20.0			20.0						20.0			20.0				
GLC-100	1899-1AMP											20.0					20.0	20.0		20.0	20.0			

**Stability problems arise with international shipment of mixtures containing linolenate. When ordering such mixtures from outside the continental U.S. or central Europe, please check with your local dealer regarding ordering practices.

Food & Beverage Standards

Lipids/FAMES: Lipid Standards

Polyunsaturated Fatty Acid (PUFA) Methyl Esters

These are complex qualitative standard mixtures. Because they are extracted from natural materials, relative peak sizes and composition may vary from lot to lot.

Description	Concentration	Cat. No.	Qty
PUFA No.1 (Marine Source)	(varied concentration) <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester Methyl oleate 11-Docosenoic acid methyl ester Methyl palmitate Methyl all- <i>cis</i> -7,10,13,16,19-docosapentaenoate Methyl palmitoleate Methyl <i>cis</i> -13-docosenoate Methyl stearidonate Methyl all- <i>cis</i> -5,8,11,14,17-eicosapentaenoate Methyl <i>cis</i> -11-eicosenoate Methyl linoleate Methyl myristate	47033	100 mg
PUFA No.2 (Animal Source)	(varied concentration) <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester Methyl γ -linolenate <i>cis</i> -8,11,14-Eicosatrienoic acid methyl ester Methyl myristate Methyl arachidonate Methyl oleate Methyl all- <i>cis</i> -7,10,13,16,19-docosapentaenoate Methyl palmitate Methyl all- <i>cis</i> -5,8,11,14,17-eicosapentaenoate Methyl palmitoleate Methyl linoleate Methyl linolenate Methyl stearate <i>cis</i> -11-Octadecenoic acid methyl ester	47015-U	100 mg
PUFA No.3 (from menhaden oil)	(var. concentration) <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester Methyl myristate <i>cis</i> -11,14,17-Eicosatrienoic acid methyl ester Methyl oleate 9, 12 - Hexadecadienoic acid methyl ester Methyl palmitate 6, 9, 12, 15 - Hexadecatetraenoic acid methyl ester Methyl palmitoleate Methyl arachidonate Methyl stearate Methyl all- <i>cis</i> -7,10,13,16,19-docosapentaenoate Methyl all- <i>cis</i> -5,8,11,14,17-eicosapentaenoate Methyl <i>cis</i> -11-eicosenoate Methyl stearidonate Methyl linoleate Methyl linolenate 11,14-Octadecadienoic acid methyl ester 9,11,14-Octadecatrienoic acid methyl ester <i>cis</i> -11-Octadecenoic acid methyl ester	47085-U	100 mg

Grain Fatty Acid Methyl Ester Mix

▶ 10 mg/mL in methylene chloride (as total weight), analytical standard

This fatty acid methyl ester (FAME) mixture is carefully prepared by weight. The weight percentage of each component is indicated. Each ampule contains 10 mg/mL of the FAME reference standard mix in methylene chloride.

For information on the chromatographic analysis of this standard, please contact Technical Services at techservice@sial.com.

Components

Methyl arachidate 1.9 wt. %
Methyl behenate 1.9 wt. %
Methyl caprylate 1.9 wt. %
Methyl decanoate 3.2 wt. %
Methyl *cis*-11-eicosenoate 1.9 wt. %
Methyl elaidate 2.6 wt. %
Methyl erucate 1.9 wt. %
Methyl heptadecanoate 3.2 wt. %
Methyl laurate 6.4 wt. %
Methyl linoleate 13 wt. %
Methyl linolenate 6.4 wt. %
Methyl myristate 3.2 wt. %
Methyl myristoleate 1.9 wt. %
Methyl oleate 19.6 wt. %
Methyl palmitate 13 wt. %
Methyl palmitoleate 6.4 wt. %
Methyl pentadecanoate 1.9 wt. %
Methyl stearate 6.5 wt. %
Methyl tridecanoate 3.2 wt. %
store at: -20°C

47801

1 mL

Food & Beverage Standards

Lipids/FAMES: Lipid Standards

Supelco® 37 Component FAME Mix

▶ 10 mg/mL in methylene chloride (varied), analytical standard

Use this qualitative standard to identify key fatty acid methyl esters in a variety of food products. The complex nature of this mix eliminates the need to purchase multiple mixtures for identification while minimizing expenses.

For information on the chromatographic analysis of this standard, please contact Technical Services at techservice@sial.com.

Components

cis-13,16-Docosadienoic acid methyl ester 2 wt. %
cis-4,7,10,13,16,19-Docosahexaenoic acid methyl ester 2 wt. %
cis-11,14-Eicosadienoic acid methyl ester 2 wt. %
cis-5,8,11,14,17-Eicosapentaenoic acid methyl ester 2 wt. %
cis-8,11,14-Eicosatrienoic acid methyl ester 2 wt. %
cis-11,14,17-Eicosatrienoic acid methyl ester 2 wt. %
cis-11-Eicosenoic acid methyl ester 2 wt. %
Methyl *cis*-10-heptadecenoate 2 wt. %
Methyl hexanoate 4 wt. %
Methyl γ -linolenate 2 wt. %
Methyl arachidate 4 wt. %
Methyl arachidonate 2 wt. %
Methyl behenate 4 wt. %
Methyl butyrate 4 wt. %
Methyl decanoate 4 wt. %
Methyl dodecanoate 4 wt. %
Methyl elaidate 2 wt. %
Methyl erucate 2 wt. %
Methyl heneicosanoate 2 wt. %
Methyl heptadecanoate 2 wt. %
Methyl linoleate 2 wt. %
Methyl linoleaidate 2 wt. %
Methyl linolenate 2 wt. %
Methyl myristate 4 wt. %
Methyl myristoleate 2 wt. %
Methyl oleate 4 wt. %
Methyl octanoate 4 wt. %
Methyl palmitate 6 wt. %
Methyl palmitoleate 2 wt. %
Methyl pentadecanoate 2 wt. %
Methyl *cis*-10-pentadecenoate 2 wt. %
Methyl stearate 4 wt. %
Methyl tricosanoate 2 wt. %
Methyl tetracosanoate 4 wt. %
Methyl tridecanoate 2 wt. %
Methyl undecanoate 2 wt. %
Methyl *cis*-15-tetracosenoate 2 wt. %
ship: dry ice store at: -20°C

47885-U

1 mL

Fatty Acid Methyl Ester Kits and Mixes (Qualitative)

Our kits and mixes are prepared from unsaturated medium-chain fatty acids. They are useful for establishing retention times and for peak identification. All components are 99% pure by GLC and/or TLC, unless otherwise stated.

Saturated FAMES

Description	Concentration	Cat. No.	Qty
Fatty Acid Methyl Esters, Saturated Straight (individually packaged in quantities indicated)		ME10-1KT	1 kit
Chains	<i>Caproic</i> (C6:0), 1 g <i>Caprylic</i> (C8:0), 1 g <i>Capric</i> (C10:0), 1 g <i>Lauric</i> (C12:0), 1 g <i>Myristic</i> (C14:0), 1 g	<i>Palmitic</i> (C16:0), 1 g <i>Stearic</i> (C18:0), 1 g <i>Arachidic</i> (C20:0), 1 g <i>Behenic</i> (C22:0), 1 g <i>Lignoceric</i> (C24:0), 100 mg	
Fatty Acid Methyl Esters, Saturated Straight (individually packaged in quantities indicated)		ME19-1KT	1 kit
Chain	<i>Caproic</i> (C6:0), 1 g <i>Heptanoic</i> (C7:0), 1 g <i>Caprylic</i> (C8:0), 1 g <i>Nonanoic</i> (C9:0), 1 g <i>Capric</i> (C10:0), 1 g <i>Undecanoic</i> (C11:0), 1 g <i>Lauric</i> (C12:0), 1 g <i>Tridecanoic</i> (C13:0), 1 g <i>Myristic</i> (C14:0), 1 g <i>Pentadecanoic</i> (C15:0), 1 g	<i>Palmitic</i> (C16:0), 1 g <i>Heptadecanoic</i> (C17:0), 1 g <i>Stearic</i> (C18:0), 1 g <i>Nonadecanoic</i> (C19:0), 1 g <i>Arachidic</i> (C20:0), 1 g <i>Heneicosanoic</i> (C21:0), 1 g <i>Behenic</i> (C22:0), 1 g <i>Tricosanoic</i> (C23:0), 1 g <i>Lignoceric</i> (C24:0), 1 g	

Food & Beverage Standards

Lipids/FAMES: Fatty Acid Methyl Ester Kits and Mixes (Qualitative)

Unsaturated FAMES

Description	Concentration	Cat. No.	Qty	
F.A.M.E. Mix, C4-C24 Unsaturates	wt. % (varied) <i>cis</i> -13,16-Docosadienoic acid methyl ester, 2 wt. % <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester, 2 wt. % <i>cis</i> -11,14-Eicosadienoic acid methyl ester, 2 wt. % <i>cis</i> -5,8,11,14,17-Eicosapentaenoic acid methyl ester, 2 wt. % <i>cis</i> -8,11,14-Eicosatrienoic acid methyl ester, 2 wt. % <i>cis</i> -11,14,17-Eicosatrienoic acid methyl ester, 2 wt. % Methyl arachidate, 4 wt. % Methyl arachidonate, 2 wt. % Methyl behenate, 4 wt. % Methyl butyrate, 4 wt. % Methyl decanoate, 4 wt. % Methyl <i>cis</i> -13-docosenoate, 2 wt. % Methyl dodecanoate, 4 wt. % Methyl <i>cis</i> -11-eicosenoate, 2 wt. % Methyl elaidate, 2 wt. % Methyl heneicosanoate, 2 wt. % Methyl heptadecanoate, 2 wt. % Methyl <i>cis</i> -10-heptadecenoate, 2 wt. % Methyl hexanoate, 4 wt. %	Methyl linoleate, 2 wt. % Methyl linolelaidate, 2 wt. % Methyl linolenate, 2 wt. % Methyl γ -linolenate, 2 wt. % Methyl myristate, 4 wt. % Methyl myristoleate, 2 wt. % Methyl octanoate, 4 wt. % Methyl oleate, 4 wt. % Methyl palmitate, 6 wt. % Methyl palmitoleate, 2 wt. % Methyl pentadecanoate, 2 wt. % Methyl <i>cis</i> -10-pentadecenoate, 2 wt. % Methyl stearate, 4 wt. % Methyl tetracosanoate, 4 wt. % Methyl <i>cis</i> -15-tetracosenoate, 2 wt. % Methyl tricosanoate, 2 wt. % Methyl tridecanoate, 2 wt. % Methyl undecanoate, 2 wt. %	18919-1AMP	100 mg
F.A.M.E. Mix, C8-C22 Unsaturates	wt. % (varied) Methyl arachidate, 1.9 wt. % Methyl behenate, 1.9 wt. % Methyl decanoate, 3.2 wt. % Methyl <i>cis</i> -13-docosenoate, 1.9 wt. % Methyl dodecanoate, 6.4 wt. % Methyl <i>cis</i> -11-eicosenoate, 1.9 wt. % Methyl elaidate, 2.6 wt. % Methyl heptadecanoate, 3.2 wt. % Methyl linoleate, 13 wt. % Methyl linolenate, 6.4 wt. %	Methyl myristate, 3.2 wt. % Methyl myristoleate, 1.9 wt. % Methyl octanoate, 1.9 wt. % Methyl oleate, 19.6 wt. % Methyl palmitate, 13 wt. % Methyl palmitoleate, 6.4 wt. % Methyl pentadecanoate, 1.9 wt. % Methyl stearate, 6.5 wt. % Methyl tridecanoate, 3.2 wt. %	18920-1AMP	100 mg
F.A.M.E. Mix, C8-C24	wt. % (varied) Methyl arachidate, 8 wt. % Methyl behenate, 8 wt. % Methyl decanoate, 8 wt. % Methyl <i>cis</i> -13-docosenoate, 5 wt. % Methyl dodecanoate, 8 wt. % Methyl linoleate, 5 wt. % Methyl linolenate, 5 wt. %	Methyl myristate, 8 wt. % Methyl octanoate, 8 wt. % Methyl oleate, 5 wt. % Methyl palmitate, 11 wt. % Methyl palmitoleate, 5 wt. % Methyl stearate, 8 wt. % Methyl tetracosanoate, 8 wt. %	18918-1AMP	100 mg
F.A.M.E. Mix, C20 Unsaturates	(approx. 25% (by weight) each component) <i>cis</i> -11-Eicosenoic acid methyl ester, ~10 mg <i>cis</i> -11,14-Eicosadienoic acid methyl ester, ~10 mg	<i>cis</i> -5,8,11,14-Eicosatetraenoic acid methyl ester, ~10 mg <i>cis</i> -5,8,11,14,17-Eicosapentaenoic acid methyl ester, ~10 mg	18912-1AMP	40 mg
Fatty Acid Methyl Ester Mix	(approx. 20% (by weight) each component) <i>cis</i> -11,14-Eicosadienoic acid methyl ester, ~10 mg <i>cis</i> -11-Eicosenoic acid methyl ester, ~10 mg <i>cis</i> -5,8,11,14,17-Eicosapentaenoic acid methyl ester, ~10 mg	<i>cis</i> -5,8,11,14-Eicosatetraenoic acid methyl ester, ~10 mg <i>cis</i> -11,14,17-Eicosatrienoic acid methyl ester, ~10 mg	18913-1AMP	50 mg
Fatty Acid Methyl Ester Mix	wt. % (varied) Methyl arachidate, 10 % (w/w) Methyl elaidate, 20 % (w/w) Methyl linoleate, 20 % (w/w)	Methyl linolelaidate, 20 % (w/w) Methyl oleate, 20 % (w/w) Methyl stearate, 10 % (w/w)	18916-1AMP	100 mg
Fatty Acid Methyl Ester Mix	wt. % (varied) Methyl arachidate, 2 % (w/w) Methyl behenate, 2 % (w/w) Methyl elaidate, 10 % (w/w) Methyl linoleate, 34 % (w/w) Methyl linolelaidate, 2 % (w/w)	Methyl linolenate, 5 % (w/w) Methyl myristate, 4 % (w/w) Methyl oleate, 25 % (w/w) Methyl palmitate, 10 % (w/w) Methyl stearate, 6 % (w/w)	18917-1AMP	100 mg
Fatty Acid Methyl Esters, Unsaturated Kit	(individually packaged in quantities indicated) <i>cis</i> -4,7,10,13,16,19-Docosahexaenoic acid methyl ester, 100 mg Methyl arachidonate, 100 mg Methyl <i>cis</i> -13-docosenoate, 100 mg Methyl <i>cis</i> -11-eicosenoate, 100 mg Methyl elaidate, 500 mg Methyl linoleate, 1000 mg Methyl linolelaidate, 100 mg	Methyl linolenate, 100 mg Methyl myristoleate, 100 mg Methyl nervonate Methyl oleate, 100 mg Methyl palmitoleate, 100 mg Methyl petroselinic acid, 100 mg Methyl <i>cis</i> -15-tetracosenoate, 100 mg	ME14-1KT	1 kit

Food & Beverage Standards

Lipids/FAMES: Free Fatty Acid Kits (Qualitative)

Free Fatty Acid Kits (Qualitative)

These kits are prepared from unsaturated medium-chain fatty acids. They are useful for establishing retention times and for peak identification. All components are 99% pure by GLC and/or TLC, unless otherwise stated.

Saturated Fatty Acids			
Description	Concentration	Cat. No.	Qty
Fatty Acid Kit	(individually packaged, quantities indicated) <i>Arachidic acid, 5 g</i> <i>Behenic acid, 5 g</i> <i>Decanoic acid, 10 g</i> <i>Dodecanoic acid, 10 g</i> <i>Hexanoic acid, 10 mL</i>	<i>Lignoceric acid, 1 g</i> <i>Myristic acid, 10 g</i> <i>Octanoic acid, 10 mL</i> <i>Palmitic acid, 10 g</i> <i>Stearic acid, 5 g</i>	EC10A-1KT 1 kit
Fatty Acids Even Carbon Straight Chains	(individually packaged in quantities indicated) <i>Hexanoic acid, 10 mL</i> <i>Octanoic acid, 10 mL</i> <i>Decanoic acid, 10 g</i> <i>Dodecanoic acid, 10 g</i> <i>Myristic acid, 10 g</i>	<i>Palmitic acid, 10 g</i> <i>Stearic acid, 10 g</i> <i>Arachidic acid, 10 g</i> <i>Behenic acid, 10 g</i> <i>Lignoceric acid, 10 g</i>	EC10-1KT 1 kit
Fatty Acids, Odd Carbon Straight Chains Kit	(individually packaged in quantities indicated) <i>Heneicosanoic acid, 1 g</i> <i>Heptadecanoic acid, 1 g</i> <i>Heptanoic acid, 1 g</i> <i>Nonadecanoic acid, 1 g</i> <i>Nonanoic acid, 1 g</i>	<i>Pentadecanoic acid, 1 g</i> <i>Tricosanoic acid, 1 g</i> <i>Tridecanoic acid, 1 g</i> <i>Undecanoic acid, 1 g</i>	OC9-1KT 1 kit

Unsaturated Fatty Acids			
Description	Concentration	Cat. No.	Qty
Fatty Acids Unsaturated Kit	(individually packaged in quantities indicated) <i>Arachidonic acid, 100 mg</i> <i>cis-4,7,10,13,16,19-Docosahexaenoic acid, 100 mg</i> <i>Elaidic acid, 100 mg</i> <i>Erucic acid, 100 mg</i> <i>Linoleic acid, 100 mg</i>	<i>Linolenic acid, 100 mg</i> <i>Nervonic acid, 100 mg</i> <i>Oleic acid, 100 mg</i> <i>Palmitoleic acid, 100 mg</i> <i>Petroselinic acid, 100 mg</i>	UN10-1KT 1 kit

Sterols

Sterols make up the majority of the unsaponifiable matter in vegetable and animal fats. Animal fats contain mostly cholesterol, whereas most vegetable fats contain only traces of this sterol. Plant sterols are collectively called phytosterols. These standards are not corrected for purity. Packed in amber ampule under nitrogen.

CAS No.	Compound	Cat. No.	Qty
481-21-0	5 α -Cholestane, 10 mg/mL in chloroform, analytical standard	47124	1 mL
80-97-7	Cholestanol, 10 mg/mL in chloroform, analytical standard	47129	1 mL
57-88-5	Cholesterol solution, 10 mg/mL in chloroform, analytical standard	47127-U	1 mL
57-87-4	Ergosterol, 10 mg/mL in chloroform, analytical standard	47130-U	1 mL
83-46-5	β -Sitosterol, 100 μ g/mL in chloroform, analytical standard	47133	1 mL
83-48-7	Stigmasterol, 10 mg/mL in chloroform, analytical standard	47132	1 mL

Mono-, Di-, and Triglycerides

These qualitative standards are useful in determining relative retention times and for establishing approximate response factors. Mixes are prepared by weight, and the composition verified by gas and/or thin layer liquid chromatography. The weight percentage of each component is indicated.

Description	Concentration	Cat. No.	Qty
Lipid Standard, Mono-, Di-, & Triglyceride Mix	- <i>1,3-Diolein, 10 mg</i> <i>1,2-Dioleoyl-rac-glycerol, 10 mg</i>	- <i>Glyceryl trioleate, 10 mg</i> <i>Monoolein, 10 mg</i>	1787-1AMP 40 mg
Lipid standards: triglyceride mixtures	- <i>Glyceryl tridecanoate, ~20 mg</i> <i>Glyceryl tridodecanoate, ~20 mg</i> <i>Glyceryl trimyristate, ~20 mg</i>	- <i>Glyceryl trioctanoate, ~20 mg</i> <i>Tripalmitin, ~20 mg</i>	17811-1AMP 100 mg

Food & Beverage Standards

Lipids/FAMES: Mono-, Di-, and Triglycerides

Description	Concentration	Cat. No.	Qty
Mono-, Di-, and Triglycerides Kit	(individually packaged) Dilaurin Mixed Isomers, 100 mg 1,2-Dimyristoyl-rac-glycerol, 100 mg Dipalmitin, 100 mg 1,2-Distearoyl-rac-glycerol, 100 mg rac-Glycerol 1-myristate, 100 mg Glycerol tridodecanoate, 100 mg Glycerol triarachidate, 100 mg Glycerol trihexanoate, 1 mL Glycerol tridecanoate, 100 mg Glycerol tri(cis-13-docosenoate), 100 mg Glycerol tridodecanoate, 100 mg Glycerol tri(cis-11-eicosenoate), 100 mg Glycerol trielaidate, 100 mg Glycerol trilinoleate, 100 mg Glycerol trilinolenate, 100 mg Glycerol trimyristate, 100 mg	- MDT12-1KT	1 kit
Phospholipid Mixture for HPLC	in chloroform (varied) L- α -Lysophosphatidylcholine Glycine max (soybean), .3 mg/mL L- α -Phosphatidylcholine, 1.5 mg/mL L- α -Phosphatidylinositol ammonium salt Glycine max (soybean), .9 mg/mL L- α -Phosphatidylethanolamine Glycine max (soybean), 1.2 mg/mL	- P3817-1VL	
Triglycerides Kit	(individually packaged in quantities indicated) Glycerol triarachidate, 100 mg Glycerol trihexanoate, 1 mL Glycerol tridecanoate, 100 mg Glycerol tri(cis-13-docosenoate), 100 mg Glycerol tridodecanoate, 100 mg Glycerol tri(cis-11-eicosenoate), 100 mg Glycerol trielaidate, 100 mg Glycerol trilinoleate, 100 mg Glycerol trilinolenate, 100 mg Glycerol trimyristate, 100 mg Glycerol trioctanoate, .5 mL Glycerol tripalmitoleate, 100 mg Glycerol tripetroselinoleate, 100 mg Glycerol tristearate, 100 mg Triacetin, 100 mg Tribehenin, 100 mg Glycerol tributryrate, 100 mg Tripalmitin, 100 mg Glycerol trioleate, 100 mg	- TRI19-1KT	1 kit
Triglycerides, Saturated, Even Carbon Kit	(individually packaged in quantities indicated) Triacetin, 100 mg Glycerol tributryrate, 100 mg Glycerol trihexanoate, 1 mL Glycerol trioctanoate, 1 mL Glycerol tridecanoate, 100 mg Glycerol tridodecanoate, 100 mg Glycerol trimyristate, 100 mg Tripalmitin, 100 mg Glycerol tristearate, 100 mg Glycerol triarachidate, 100 mg Tribehenin, 100 mg	- TRI11-1KT	1 kit

Bacterial Identification Standards

Bacterial Acid Methyl Ester (BAME) Mix

► solution (10 mg/mL total concentration in methyl caproate), analytical standard

This is a qualitative standard of bacterial acid methyl esters in methyl caproate (10 mg/mL total concentration). Use this mix to distinguish between various bacteria on the basis of their cellular fatty acid composition. For information on the chromatographic analysis of this standard, please contact Technical Services at techservice@sial.com.

Components

Methyl undecanoate
Methyl (\pm)-2-hydroxydodecanoate
Methyl dodecanoate
Methyl tridecanoate
Methyl 2-hydroxydodecanoate
Methyl (\pm)-3-hydroxydodecanoate
Methyl myristate
Methyl 13-methyltetradecanoate
Methyl 12-methyltetradecanoate
Methyl pentadecanoate
Methyl 2-hydroxytetradecanoate
Methyl 3-hydroxytetradecanoate
Methyl 14-methylpentadecanoate
Methyl cis-9-hexadecanoate
Methyl palmitate
Methyl 15-methylhexadecanoate
Methyl cis-9,10-methylenehexadecanoate
Methyl heptadecanoate
Methyl 2-hydroxyhexadecanoate
Methyl linoleate
Methyl oleate
Methyl trans-9-octadecanoate
Methyl stearate
Methyl cis-9,10-methyleneoctadecanoate
Methyl nonadecanoate
Methyl eicosanoate

store at: -20°C

47080-U

1 mL

Food & Beverage Standards

Lipids/FAMES: Bacterial Identification Standards

Non-volatile Acid Standard Mix

▶ 0.01 meq/mL each component in deionized water, analytical standard

Components

Fumaric acid
 α-Lactic acid
 Malonic acid
 Methylmalonic acid
 Oxalacetic acid
 Oxalic acid
 Pyruvic acid
 Succinic acid
 store at: 2-8°C

46985-U 100 mL

Volatile Free Acid Mix

▶ analytical standard

Components

Acetic acid
 Butyric acid
 Formic acid
 Heptanoic acid
 Hexanoic acid
 Isobutyric acid
 Isovaleric acid
 4-Methylvaleric acid
 Propionic acid
 Valeric acid
 store at: 2-8°C

46975-U 100 mL

WSFA-2

▶ 0.1 wt. % each component in deionized water, qualitative standard

Components

Acetic acid
 Butyric acid
 Isobutyric acid
 Isovaleric acid
 Propionic acid
 Valeric acid

47056 5 mL

WSFA-4

▶ 0.1 wt. % each component in deionized water, qualitative standard

Components

Acetic acid
 Butyric acid
 Isobutyric acid
 Isovaleric acid
 2-Methylbutyric acid
 Propionic acid
 Valeric acid

47058 5 mL

Mycotoxins

Sigma-Aldrich offers a comprehensive line of certified reference materials and analytical standards for measuring the levels of unsafe mycotoxins in crops, fruits, processed foods and animal feeds. Products are tested by spectroscopy and/or HPLC against known standards and previous lots to ensure precision and uniformity, ensuring that you are obtaining the finest mycotoxin standards available.

Caution: Mycotoxins may be carcinogenic and, therefore, should be handled only by qualified personnel.

NEW PRODUCTS

Mycotoxin Reference Materials (Neats)

We offer certified reference materials in neat form for the preparation of your own instrumentation calibration solutions. Certificate of Analysis are available for each product.

Description	Cat. No.	Pkg
3-Acetyldeoxynivalenol	32927-5MG	5 mg
15-Acetyldeoxynivalenol	32928-5MG	5 mg
Aflatoxin B ₁	32754-5MG	5 mg
Aflatoxin B ₂	32755-5MG	5 mg
Aflatoxin G ₁	32756-5MG	5 mg
Aflatoxin G ₂	32757-5MG	5 mg
Deoxynivalenol	32943-5MG	5 mg
Fumonisin B ₁	32936-5MG	5 mg
Fusarenon X	33438-5MG	5 mg
Neosolaniol	32932-5MG	5 mg
Nivalenol	32929-5MG	5 mg
Ochratoxin A	32937-5MG	5 mg
Patulin	32759-5MG	5 mg
Sterigmatocystin	32609-5MG	5 mg
T-2 Toxin	33947-5MG	5 mg
Zearalenone	32939-5MG	5 mg

Food & Beverage Standards

Mycotoxins

Mycotoxin mixtures

For a detailed analysis of individual mycotoxins in multi-toxin samples.

Description	Concentration	Cat. No.	Qty
Aflatoxin Mix	in benzene:acetonitrile (98:2) Aflatoxin B ₁ , 1 µg/mL Aflatoxin B ₂ , .3 µg/mL	46300-U Aflatoxin G ₁ , 1 µg/mL Aflatoxin G ₂ , .3 µg/mL	5 × 1 mL
Aflatoxin Mix	in methanol (varied) Aflatoxin B ₁ , 1 µg/mL Aflatoxin B ₂ , .3 µg/mL	46304-U 46303 Aflatoxin G ₁ , 1 µg/mL Aflatoxin G ₂ , .3 µg/mL	5 × 1 mL 5 mL
Aflatoxin Mix 4 solution	2 µg/mL B ₁ and G ₁ in acetonitrile 0.5 µg/mL B ₂ and G ₂ in acetonitrile	34036-1ML-R 34036-2ML-R	1 mL 2 mL
Aflatoxin Mix 4 solution	-	33415-2ML	2 mL
Japanese Aflatoxin Mixture	25 µg/mL each component in acetonitrile Aflatoxin B ₁ Aflatoxin B ₂	40139-U Aflatoxin G ₁ Aflatoxin G ₂	5 × 1 mL
B-Tricothecene mix, (DON, NIV, 3-AcDON, 15-AcDON)	100 µg/mL in acetonitrile (each of DON, NIV, 3-AcDON and 15-AcDON)	34134-2ML	2 mL
Tricothecene Mix solution	-	32926-1ML	1 mL

Single-component solutions (mycotoxins)

For precise quality control of food and feed, we offer both labeled and non-labeled single-component solutions of the most important mycotoxins in a variety of concentrations and different solvents. A Certificate of Analysis is available for each product.

Description	Concentration	Cat. No.	Qty
3-Acetyldeoxynivalenol solution	100 µg/mL in acetonitrile	34132-2ML	2 mL
3-Acetyldeoxynivalenol- ¹³ C ₁₇ solution	25 µg/mL in acetonitrile	32962-1ML	1 mL
3-Acetyl-d ₃ -deoxynivalenol solution	100 µg/mL in acetonitrile	34129-2ML	2 mL
15-Acetyldeoxynivalenol solution	100 µg/mL in acetonitrile	34133-2ML	2 mL
Deepoxy-deoxynivalenol solution	50 µg/mL in acetonitrile	34135-2ML	2 mL
Deoxynivalenol-d ₁ solution	100 µg/mL in acetonitrile	34155-2ML	2 mL
Deoxynivalenol solution	100 µg/mL in acetonitrile	34124-2ML	2 mL
Deoxynivalenol- ¹³ C ₁₅ solution	25 µg/mL in acetonitrile	34128-1ML	1 mL
Fumonisin B ₁ solution	50 µg/mL in acetonitrile: water	34139-2ML	2 mL
Fumonisin B ₁ - ¹³ C ₃₄ solution	25 µg/mL in acetonitrile: water	33621-1ML	1 mL
Fumonisin B ₂ solution	50 µg/mL in acetonitrile: water (50:50)	34142-2ML	2 mL
Fumonisin B ₂ - ¹³ C ₃₄ solution	10 µg/mL in acetonitrile: water	32915-1ML	1 mL
Fumonisin B ₃ - ¹³ C ₃₄ solution	10 µg/mL in acetonitrile: water	32916-1ML	1 mL
Fusarenon X solution	100 µg/mL in acetonitrile	34130-2ML	2 mL
HT-2 Toxin- ¹³ C ₂₂ solution	25 µg/mL in acetonitrile	33842-1ML	1 mL
Mycophenolic acid- ¹³ C ₁₇ solution	25 µg/mL in acetonitrile	32773-1ML	1 mL
Nivalenol solution	100 µg/mL in acetonitrile	34131-2ML	2 mL
Ochratoxin A ¹³ C ₂₀ solution	10 µg/mL in acetonitrile	33416-1ML	1 mL
Patulin solution	100 µg/mL in acetonitrile	34127-2ML	2 mL
T-2 Toxin- ¹³ C ₂₄ solution	25 µg/mL in acetonitrile	33892-1ML	1 mL
Zearalenone solution	100 µg/mL in acetonitrile	34126-2ML	2 mL
Zearalenone- ¹³ C ₁₈ solution	25 µg/mL in acetonitrile	32758-1ML	1 mL
Aflatoxin B ₁ solution	3 µg/mL in benzene:acetonitrile (98:2)	46323-U	1 mL
Aflatoxin B ₁ solution	2 µg/mL in acetonitrile	34029-2ML-R	2 mL
Aflatoxin B ₁ solution	20 µg/mL in methanol	44647-U	1 mL
Aflatoxin B ₁ solution	3.79 µg/g in acetonitrile	ERMAC057-4ML	4 mL
Aflatoxin B ₁ - ¹³ C ₁₇ solution	0.5 µg/mL in acetonitrile	32764-1ML	1 mL
Aflatoxin B ₂ solution	0.5 µg/mL in acetonitrile	34034-2ML-R	2 mL
Aflatoxin B ₂ solution	3 µg/mL in benzene:acetonitrile (98:2)	46324-U	1 mL
Aflatoxin B ₂ solution	3.80 µg/g in acetonitrile	ERMAC058-4ML	4 mL
Aflatoxin B ₂ - ¹³ C ₁₇ solution	0.5 µg/mL in acetonitrile	32771-1ML	1 mL
Aflatoxin G ₁ solution	2 µg/mL in acetonitrile	34032-2ML-R	2 mL
Aflatoxin G ₁ solution	3 µg/mL in benzene:acetonitrile (98:2)	46325-U	1 mL
Aflatoxin G ₁ - ¹³ C ₁₇ solution	0.5 µg/mL in acetonitrile	32772-1ML	1 mL
Aflatoxin G ₂ solution	0.5 µg/mL in acetonitrile	34033-2ML-R	2 mL
Aflatoxin G ₂ solution	3 µg/mL in benzene:acetonitrile (98:2)	46326-U	1 mL
Aflatoxin G ₂ solution	3.80 µg/g in acetonitrile	ERMAC060-4ML	4 mL
Aflatoxin G ₂ - ¹³ C ₁₇ solution	0.5 µg/mL in acetonitrile	32777-1ML	1 mL

Food & Beverage Standards

Mycotoxins

Single-component solutions (mycotoxins) (continued)

Description	Concentration	Cat. No.	Qty
Aflatoxin M ₁ solution	0.5 µg/mL in acetonitrile	34031-2ML-R	2 mL
Aflatoxin M ₁ solution	10 µg/mL in acetonitrile	46319-U	1 mL
Aflatoxin M ₁ standard solution	9.93 µg/mL in chloroform	BCR423RM-2.5ML	2.5 mL
Ochratoxin B solution	10 µg/mL in acetonitrile	32411-2ML	2 mL
Fumonisin B ₃ solution	50 µg/mL in acetonitrile: water	32606-1ML	1 mL
Deoxynivalenol 3-glucoside solution	50 µg/mL in acetonitrile	32911-1ML	1 mL
T-2-Triol solution	50 µg/mL in acetonitrile	32913-1ML	1 mL
T-2-Tetraol solution	50 µg/mL in acetonitrile	32914-1ML	1 mL
Sterigmatocystin solution	50 µg/mL in acetonitrile	32986-1ML	1 mL
Ochratoxin A solution	10 µg/mL in acetonitrile	34037-2ML-R	2 mL
T2-Toxin solution	100 µg/mL in acetonitrile	34071-2ML	2 mL
Neosolaniol solution	100 µg/mL in acetonitrile	34138-2ML	2 mL
α-Zearalenol solution	10 µg/mL in acetonitrile	35405-1ML	1 mL
α-Zearalenol solution	10 µg/mL in acetonitrile	35406-1ML	1 mL
β-Zearalenol solution	10 µg/mL in acetonitrile	35407-1ML	1 mL
β-Zearalenol solution	10 µg/mL in acetonitrile	35409-1ML	1 mL
Paxilline solution	100 µg/mL in acetonitrile	35417-1ML	1 mL
Wortmannin solution	100 µg/mL in acetonitrile	35441-1ML	1 mL
Gliotoxin solution	100 µg/mL in acetonitrile	35598-1ML	1 mL
Moniliformin sodium salt solution	100 µg/mL in acetonitrile: water	37013-1ML	1 mL
Verruculogen solution	100 µg/mL in acetonitrile	37016-1ML	1 mL
Fumagillin solution	100 µg/mL in acetonitrile	37017-1ML	1 mL

Mycotoxin Certified Matrix Reference Materials (CRMs)

CRMs being released from the European Commission's JRC-IRMM organization and distributed by Sigma-Aldrich are produced with raw materials to more accurately resemble actual samples in their natural state. We recommend use of these materials for evaluating sample prep methods.

Description	Cat. No.	Pkg
Compound feed (aflatoxin B ₁ , blank)	BCR375-50G	50 g
Compound feedingstuff (aflatoxins, very low level)	ERMBE375-2X75G	2 × 75 g
Compound feedingstuff (aflatoxins, high level)	ERMBE376-2X75G	2 × 75 g
Maize (very low level ZON)	ERMBE376-60G	60 g
Maize (low level zon)	ERMBE376-60G	60 g
Maize flour (deoxynivalenol, blank)	BCR377-150G	150 g
Peanut butter (aflatoxin low level)	BCR401R-1EA	1 ea
Wheat (ochratoxin A, blank)	BCR471-55G	55 g

Sweeteners

CAS No.	Compound	Cat. No.	Qty
87-99-0	Xylitol, analytical standard	47844	1000 mg
56038-13-2	Sucralose, analytical standard	90984-100MG	100 mg
55589-62-3	Acesulfame K, analytical standard	47134	1000 mg
22839-47-0	Aspartame, analytical standard	47135	500 mg
139-05-9	Sodium Cyclamate, analytical standard	47827	1000 mg
50-99-7	D-(+) Glucose, analytical standard	47829	1000 mg
82385-42-0	Sodium Saccharin, analytical standard	47839	1000 mg
6381-91-5	Saccharin Calcium Salt, analytical standard	47840	1000 mg
50-70-4	D-Sorbitol, analytical standard	47841	1000 mg

Food & Beverage Standards

Vitamins

Vitamins

For use in the retention identification of vitamins when using HPLC and GC. Not intended for use as an activity reference standard. All compounds have been thoroughly evaluated to ensure the utmost quality. Neat, unless otherwise noted. Certificate of Composition provided with each purchase.

Water Soluble Vitamins

CAS No.	Compound	Cat. No.	Qty
68-19-9	Cyanocobalamin (B12), analytical standard	47869	100 mg
59-30-3	Folic acid, analytical standard	47866	500 mg
98-92-0	Nicotinamide (Niacinamide), analytical standard	47865-U	1000 mg
59-67-6	Nicotinic acid, analytical standard	47864	1000 mg
137-08-6	D-Pantothenic acid hemicalcium salt, analytical standard	47867	1000 mg
58-56-0	Pyridoxine Hydrochloride (B6), analytical standard	47862	1000 mg
83-88-5	Riboflavin (B2), analytical standard	47861	1000 mg
67-03-8	Thiamine Hydrochloride (B1), analytical standard	47858	1000 mg

Fat Soluble Vitamins

CAS No.	Compound	Cat. No.	Qty
67-97-0	Cholecalciferol (D3), analytical standard	47763	100 mg
50-14-6	Ergocalciferol (D2), analytical standard	47768	100 mg
58-27-5	Menadione (K3), analytical standard	47775	1000 mg
863-61-6	Menaquinone (K2), analytical standard	47774	100 mg
84-80-0	Phylloquinone (K1), analytical standard	47773	100 mg
79-81-2	Retinol palmitate, analytical standard	46959-U	100 mg
127-47-9	Retinyl acetate, analytical standard	46958	100 mg
10191-41-0	(±)-α-Tocopherol, analytical standard	47783	100 mg
148-03-8	rac-β-Tocopherol solution, 50 mg/mL in hexane, analytical standard	46401-U	1 mL
54-28-4	(+)-γ-Tocopherol, analytical standard	47785	25 mg
119-13-1	δ-Tocopherol, analytical standard	47784	100 mg
7695-91-2	Vitamin E acetate, analytical standard	47786	100 mg
4345-03-3	D-α-Tocopherol succinate, analytical standard	47782	100 mg

Petroleum Standards

ASTM Petroleum Standards

ASTM® D2887

This sample is a petroleum fraction having a boiling range from 250°F to 850°F, evaluated in round-robin studies by the ASTM. Use this sample and the supplied ASTM boiling range consensus values to evaluate system performance.

Description	Concentration	Cat. No.	Qty																				
ASTM® D2887 Reference gas oil sample, Lot - 2		506419 48873	1 mL 6 × 1 mL																				
ASTM® D2887 Quantitative Calibration Solution	0.5 wt. % each component in carbon disulfide (except where noted)	500631 500658	1 mL 6 × 1 mL																				
	<table border="0"> <tr> <td><i>Decane</i></td> <td><i>Octane</i></td> </tr> <tr> <td><i>Dodecane</i></td> <td><i>Pentadecane</i></td> </tr> <tr> <td><i>Eicosane</i></td> <td><i>Pentane</i></td> </tr> <tr> <td><i>Heptadecane</i></td> <td><i>Tetracosane</i></td> </tr> <tr> <td><i>Heptane</i></td> <td><i>Tetradecane</i></td> </tr> <tr> <td><i>Hexacosane</i></td> <td><i>Undecane</i></td> </tr> <tr> <td><i>Hexadecane, 1 % (w/w)</i></td> <td><i>Hexatriacontane</i></td> </tr> <tr> <td><i>Hexane</i></td> <td><i>Triacontane</i></td> </tr> <tr> <td><i>Nonane</i></td> <td><i>Tetracontane</i></td> </tr> <tr> <td><i>Octadecane, 1 % (w/w)</i></td> <td><i>Tetratetracontane</i></td> </tr> </table>	<i>Decane</i>	<i>Octane</i>	<i>Dodecane</i>	<i>Pentadecane</i>	<i>Eicosane</i>	<i>Pentane</i>	<i>Heptadecane</i>	<i>Tetracosane</i>	<i>Heptane</i>	<i>Tetradecane</i>	<i>Hexacosane</i>	<i>Undecane</i>	<i>Hexadecane, 1 % (w/w)</i>	<i>Hexatriacontane</i>	<i>Hexane</i>	<i>Triacontane</i>	<i>Nonane</i>	<i>Tetracontane</i>	<i>Octadecane, 1 % (w/w)</i>	<i>Tetratetracontane</i>		
<i>Decane</i>	<i>Octane</i>																						
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<i>Hexane</i>	<i>Triacontane</i>																						
<i>Nonane</i>	<i>Tetracontane</i>																						
<i>Octadecane, 1 % (w/w)</i>	<i>Tetratetracontane</i>																						
ASTM® D2887/D5307 Column Resolution Test Mix	1 % (w/v) each component in octane	48889	6 × 1 mL																				
	<table border="0"> <tr> <td><i>Hexadecane</i></td> <td><i>Octadecane</i></td> </tr> </table>	<i>Hexadecane</i>	<i>Octadecane</i>																				
<i>Hexadecane</i>	<i>Octadecane</i>																						

Petroleum Standards

ASTM Petroleum Standards

ASTM® D3710

Boiling Range Distribution of Gasoline (500°F maximum)

These qualitative and quantitative hydrocarbon blends are prepared according to ASTM recommendations. Calibration mixes are either volume/volume or weight/weight formulations as indicated. Nominal concentration of actual values will differ from lot to lot. Qualitative calibration references are prepared to approximate weight/weight ($\pm 10\%$) specifications and, because of the presence of gases, are not intended for quantitative use. All calibration references are accompanied by a data sheet.

Description	Concentration	Cat. No.	Qty
ASTM® D3710 Qualitative Calibration Mix	(each component in the approximate proportions (w/w) indicated)	506427 48884	1 mL 6 × 1 mL
	<i>Butane, 4.5 % (w/w)</i> <i>Butylbenzene, 3.2 % (w/w)</i> <i>Decane, 3.2 % (w/w)</i> <i>2,4-Dimethylpentane, 5.4 % (w/w)</i> <i>Dodecane, 3.2 % (w/w)</i> <i>Heptane, 9.7 % (w/w)</i> <i>Hexane, 5.4 % (w/w)</i> <i>2-Methylbutane, 9.7 % (w/w)</i> <i>2-Methylpentane, 5.4 % (w/w)</i> <i>2-Methylpropane, 1.5 % (w/w)</i>	<i>Octane, 5.4 % (w/w)</i> <i>Pentadecane, 2.2 % (w/w)</i> <i>Pentane, 7.6 % (w/w)</i> <i>Propane, 1.5 % (w/w)</i> <i>Propylbenzene, 4.3 % (w/w)</i> <i>Tetradecane, 2.2 % (w/w)</i> <i>Toluene, 10.8 % (w/w)</i> <i>Tridecane, 2.2 % (w/w)</i> <i>p-Xylene, 13 % (w/w)</i>	
ASTM® D3710 Quantitative Calibration Mix	(each component in the approximate proportions (w/w) indicated)	506435 48879	1 mL 6 × 1 mL
	<i>Butylbenzene, 3.5 % (w/w)</i> <i>Decane, 3.5 % (w/w)</i> <i>2,4-Dimethylpentane, 5.8 % (w/w)</i> <i>Dodecane, 3.5 % (w/w)</i> <i>Heptane, 10.5 % (w/w)</i> <i>Hexane, 5.8 % (w/w)</i> <i>2-Methylbutane, 10.5 % (w/w)</i> <i>2-Methylpentane, 5.8 % (w/w)</i>	<i>Octane, 5.8 % (w/w)</i> <i>Pentadecane, 2.3 % (w/w)</i> <i>Pentane, 8.1 % (w/w)</i> <i>Propylbenzene, 4.7 % (w/w)</i> <i>Tetradecane, 2.3 % (w/w)</i> <i>Toluene, 11.6 % (w/w)</i> <i>Tridecane, 2.3 % (w/w)</i> <i>p-Xylene, 14 % (w/w)</i>	

ASTM® D4815

Determination of Oxygenates (Ethers and Alcohols) in Gasoline by GC

Along with valve timing and peak identification mixes, one set of quantitative calibration mixes are available with the method specified internal standard. All components used in preparing these standards have been analyzed for purity, water content, and the presence of other method components to 0.01%. Blends have been prepared using precise gravimetric techniques exceeding the requirements of ASTM Method D4815. Corrections are made for common impurities. All calibration blends are provided with a chromatogram and data verifying the purity and identity of the raw materials.

Description	Concentration	Cat. No.	Qty
ASTM® D4815 Quantitative Calibration Mixture 1	(each component at the nominal wt% indicated)	47205	1 mL
	<i>tert-Butanol, .095 % (w/w)</i> <i>tert-Butyl methyl ether, 19 % (w/w)</i> <i>1,2-Dimethoxyethane, 5 % (w/w)</i>	<i>Ethanol, 2.85 % (w/w)</i> <i>2-Methyl-2-butanol, 1.19 % (w/w)</i> <i>Isooctanexylene (65:35), 71.87 % (w/w)</i>	
ASTM® D4815 Quantitative Calibration Mixture 2	(each component at the nominal wt% indicated)	47206	1 mL
	<i>tert-Butanol, 2.85 % (w/w)</i> <i>tert-Butyl methyl ether, 14.25 % (w/w)</i> <i>1,2-Dimethoxyethane, 5 % (w/w)</i>	<i>Ethanol, .095 % (w/w)</i> <i>2-Methyl-2-butanol, 4.75 % (w/w)</i> <i>Isooctanexylene (65:35), 73.06 % (w/w)</i>	
ASTM® D4815 Quantitative Calibration Mixture 3	(each component at the nominal wt% indicated)	47207	1 mL
	<i>tert-Butanol, 5.7 % (w/w)</i> <i>tert-Butyl methyl ether, 9.5 % (w/w)</i> <i>1,2-Dimethoxyethane, 5 % (w/w)</i>	<i>Ethanol, 5.7 % (w/w)</i> <i>2-Methyl-2-butanol, 2.38 % (w/w)</i> <i>Isooctanexylene (65:35), 71.73 % (w/w)</i>	
ASTM® D4815 Quantitative Calibration Mixture 4	(each component at the nominal wt% indicated)	47208	1 mL
	<i>tert-Butanol, 7.6 % (w/w)</i> <i>tert-Butyl methyl ether, 4.75 % (w/w)</i> <i>1,2-Dimethoxyethane, 5 % (w/w)</i>	<i>Ethanol, 8.55 % (w/w)</i> <i>2-Methyl-2-butanol, 3.56 % (w/w)</i> <i>Isooctanexylene (65:35), 70.54 % (w/w)</i>	
ASTM® D4815 Quantitative Calibration Mixture 5	(each component at the nominal wt% indicated)	47209	1 mL
	<i>tert-Butanol, 11.4 % (w/w)</i> <i>tert-Butyl methyl ether, .095 % (w/w)</i> <i>1,2-Dimethoxyethane, 5 % (w/w)</i>	<i>Ethanol, 11.4 % (w/w)</i> <i>2-Methyl-2-butanol, .095 % (w/w)</i> <i>Isooctanexylene (65:35), 72.01 % (w/w)</i>	
ASTM® D4815 Valve Timing Mix	(each component at the nominal wt% indicated)	47212	1 mL
	<i>tert-Butyl ethyl ether, 10 % (w/w)</i> <i>tert-Butyl methyl ether, 10 % (w/w)</i> <i>Diisopropyl ether, 10 % (w/w)</i>	<i>Hexane, 60 % (w/w)</i> <i>Methylcyclopentane, 10 % (w/w)</i>	

Petroleum Standards

ASTM Petroleum Standards

Description	Concentration	Cat. No.	Qty
ASTM® D4815 Qualitative ID Mix	(each component at the nominal wt% indicated) <i>tert</i> -Amyl methyl ether, 7.3 % (w/w) Benzene, 5 % (w/w) 1-Butanol, 7.3 % (w/w) 2-Butanol, 7.3 % (w/w) <i>tert</i> -Butanol, 7.3 % (w/w) <i>tert</i> -Butyl ethyl ether, 4 % (w/w) <i>tert</i> -Butyl methyl ether, 4 % (w/w) Diisopropyl ether, 4 % (w/w)	47213	1 mL
	1,2-Dimethoxyethane, 6 % (w/w) Ethanol, 7.3 % (w/w) Methanol, 7.3 % (w/w) 2-Methyl-2-butanol, 7.3 % (w/w) Methylcyclopentane, 4 % (w/w) 2-Methyl-1-propanol, 7.3 % (w/w) 1-Propanol, 7.3 % (w/w) 2-Propanol, 7.3 % (w/w)		
ASTM® D4815 Quantitative Calibration Kit	- ASTM® D4815 Quantitative Calibration Mixture 1 (Supelco 47205) ASTM® D4815 Quantitative Calibration Mixture 2 (Supelco 47206) ASTM® D4815 Quantitative Calibration Mixture 3 (Supelco 47207) ASTM® D4815 Quantitative Calibration Mixture 4 (Supelco 47208)	47211	1 mL
	ASTM® D4815 Quantitative Calibration Mixture 5 (Supelco 47209) ASTM® D4815 Valve Timing Mix (Supelco 47212) ASTM® D4815 Qualitative ID Mix (Supelco 47213)		

ASTM® D5134

Detailed Analysis of Petroleum Naphthas through n-Nonane.

Description	Concentration	Cat. No.	Qty
ASTM® D5134 Qualitative Column Evaluation Mix	(0.5 - 1.0% by weight in 2-methylpentane) Heptane, 1 % (w/w) 2-Methylheptane, 1 % (w/w) 4-Methylheptane, 1 % (w/w)	502103	1 mL
	Octane, 1 % (w/w) Toluene, .5 % (w/w) ASTM® D5134 2,3,3-Trimethylpentane Solution, 1 % (w/w)		
ASTM® D5134 Splitter Linearity Check Mix	10 % (w/w) each component (no solvent) Benzene 2,4-Dimethylheptane 2,4-Dimethylhexane Heptane Hexane	506753	1 mL
	2-Methylheptane 2-Methylhexane Nonane Octane Toluene		
ASTM® D5134 2,3,3-Trimethylpentane Solution	-	502081	500 mg

ASTM® D5134 Qualitative Reference Materials

These refinery reference materials are the actual materials used in the ASTM D5134 round-robin method validation stage. They are referred to in the method, and are used for establishing component retention times for identification purposes. Each sample is accompanied by a comprehensive data booklet containing an expanded detailed chromatogram from a Petrocol DH 50.2 column, with identified peaks.

Description	Concentration	Cat. No.	Qty
ASTM® D5134 Qualitative Reference Alkylate Standard	(Approx. 30 identified components. Neat fraction.)	48267-U	6 × 1 mL
ASTM® D5134 Qualitative Reference Naphtha Standard	(Approx. 100 identified components. Neat fraction.)	48265-U	6 × 1 mL
ASTM® D5134 Qualitative Reference Refinery Standard Kit	(2 x 1 mL each of the three standards) ASTM® D5134 Qualitative Reference Alkylate Standard (Supelco 48267-U) ASTM® D5134 Qualitative Reference Reformate Standard (Supelco 48266)	48268	1 kit
	ASTM® D5134 Qualitative Reference Naphtha Standard (Supelco 48265-U)		
ASTM® D5134 Qualitative Reference Reformate Standard	(Approx. 70 identified components. Neat fraction.)	48266	6 × 1 mL

Highly Characterized Reference Materials

The following standards, taken from refinery process streams and exhaustively analyzed by GC/FID and GC-MS, are recommended for evaluating process performance, identifying sources of contamination, PIANO analysis, method development, and training. Each comes with a comprehensive data packet containing quantitative and qualitative data and chromatograms using a 100-meter Petrocol DH column.

Description	Cat. No.	Pkg
Petroleum Refinery Reformate	47489	1 mL
Petroleum Refinery Pyrolyzed Gas (PY GAS)	47490-U	1 mL
Petroleum refinery heavy straight run naphtha	47488	1 mL

Petroleum Standards

ASTM Petroleum Standards

ASTM® D5307

Boiling Range Distribution of Crude Petroleum.

Description	Concentration	Cat. No.	Qty
ASTM® D5307 Crude oil internal standard	(equal weights of the hydrocarbons listed) <i>Heptadecane</i> <i>Hexadecane</i>	<i>Pentadecane</i> <i>Tetradecane</i>	48479 25 mL
ASTM® D5307 Crude oil qualitative standard	(each component in approx proportion indicated) <i>Butane, 15 % (w/w)</i> <i>Heptane, 15 % (w/w)</i> <i>Hexane, 15 % (w/w)</i> <i>Nonane, 15 % (w/w)</i>	<i>Octane, 15 % (w/w)</i> <i>Pentane, 15 % (w/w)</i> <i>Propane, 10 % (w/w)</i>	48182 1 mL
ASTM® D5307 Crude oil quantitative standard	6.25 % (w/w) each component <i>Decane</i> <i>Dodecane</i> <i>Dotriacontane</i> <i>Eicosane</i> <i>Heptadecane</i> <i>Hexadecane</i> <i>Hexatriacontane</i> <i>Octacosane</i>	<i>Octadecane</i> <i>Pentadecane</i> <i>Tetracontane</i> <i>Tetracosane</i> <i>Tetradecane</i> <i>Tetratetracontane</i> <i>Tridecane</i> <i>Undecane</i>	48179 2 mL

High Molecular Weight Hydrocarbon Standards

For high temperature SIMDIS or GC analyses. Polywax materials are polyethylene waxes having average molecular weights of 500 and 655 Daltons, respectively. Ethylene oligomers range in carbon number from approximately C20 to C100+ and are useful for establishing retention times.

Description	Concentration	Cat. No.	Qty
Hexacontane	-	48893	50 mg
Pentacontane	-	48595	50 mg
Polywax® 500	-	48475	5000 mg
Polywax® 655	-	48477	5000 mg
Polywax® 500	10,000 µg/mL in <i>p</i> -xylene	48480-U	6 × 1 mL
Polywax® 655	10,000 µg/mL in <i>p</i> -xylene	48482	6 × 1 mL

ASTM® D5442

Analysis of Petroleum Waxes by GC

Qualitative and quantitative mixes of *n*-paraffins used for determining column resolution, retention times, and response factors.

Description	Concentration	Cat. No.	Qty
ASTM® D5442 C16-C44 Qualitative Retention Time Mix	8.3 % (w/w) each component <i>Docosane</i> <i>Dotriacontane</i> <i>Eicosane</i> <i>Hexacosane</i> <i>Hexadecane</i> <i>Hexatriacontane</i>	<i>Octacosane</i> <i>Octadecane</i> <i>Tetracontane</i> <i>Tetracosane</i> <i>Tetratetracontane</i> <i>Triacontane</i>	502251 500 mg
ASTM® D5442 C12-C60 Qualitative Retention Time Mix	6.25 % (w/w) each component <i>Docosane</i> <i>Dodecane</i> <i>Dotriacontane</i> <i>Eicosane</i> <i>Hexacontane</i> <i>Hexacosane</i> <i>Hexadecane</i> <i>Hexatriacontane</i>	<i>Octacosane</i> <i>Octadecane</i> <i>Pentacontane</i> <i>Tetracontane</i> <i>Tetracosane</i> <i>Tetradecane</i> <i>Tetratetracontane</i> <i>Triacontane</i>	500623 500 mg

ASTM® D5441

Purity of Methyl tert-butyl ether (MTBE) by GC.

Note: MTBE quantitative solutions and neat materials for the analyses of oxygenates in gasoline include Cat. No. 506737, 48027, and 48483.

Description	Concentration	Cat. No.	Qty
<i>tert</i> -Amyl methyl ether solution	2000 µg/mL in methanol	506737	1 mL
standard type calibration			
Methyl tert-butyl ether solution	2000 µg/mL in methanol	CRM48483	1 pkg

Petroleum Standards

ASTM Petroleum Standards

Description	Concentration	Cat. No.	Qty
Methyl <i>tert</i> -butyl ether	-	48027	1000 mg
ASTM® D5441 MTBE Contaminants (high) Mix A	1 % (w/w) each component in methyl <i>tert</i> -butyl ether <i>tert</i> -Amyl methyl ether <i>tert</i> -Butanol <i>tert</i> -Butyl ethyl ether Methanol 2-Methylbutane 2-Methyl-2-butene	47942	1 mL
ASTM® D5441 MTBE Contaminants (low) Mix B	0.1 % (w/w) each component in methyl <i>tert</i> -butyl ether <i>tert</i> -Amyl methyl ether <i>tert</i> -Butanol <i>tert</i> -Butyl ethyl ether Methanol 2-Methylbutane 2-Methyl-2-butene	47943	1 mL
		<i>Pentane</i> <i>cis</i> -2-Pentene <i>trans</i> -2-Pentene Triisobutylene 2,4,4-Trimethyl-1-pentene	
		<i>Pentane</i> <i>cis</i> -2-Pentene <i>trans</i> -2-Pentene Triisobutylene 2,4,4-Trimethyl-1-pentene	

Aliphatic Hydrocarbons Kit

Description	Concentration	Cat. No.	Qty
Aliphatic Hydrocarbons Kit	(34 individual ampules of neat plus 6 ampules of solutions) <i>Decane</i> , 1 g <i>1-Decene</i> , .5 g <i>Docosane</i> , .1 g <i>Dodecane</i> , 1 g <i>1-Dodecene</i> , .5 g <i>Dotriacontane</i> , .1 g <i>1-Eicosene</i> , 1 g <i>1-Eicosene</i> , .5 g <i>Heptacosane</i> , .1 g <i>Heptane</i> , 1 g <i>Hexacosane</i> , .1 g <i>Hexadecane</i> , .1 g <i>1-Hexadecene</i> , .5 g <i>Hexane</i> , 1 g <i>Hexatriacontane</i> , .1 g <i>Nonane</i> , 1 g <i>Octacosane</i> , 1 g <i>Octadecane</i> , 1 g <i>1-Octadecene</i> , .5 g <i>Octane</i> , 1 g	44575-U	1 ea
		<i>1-Octene</i> , .5 g <i>Pentacosane</i> , .1 g <i>Pentane</i> , 1 g <i>Squalane</i> , 1 g <i>Squalene</i> , 1 g <i>Tetracontane</i> , .1 g <i>Tetracosane</i> , 1 g <i>Tetradecane</i> , 1 g <i>1-Tetradecene</i> , .5 g <i>Tetratetracontane</i> , .1 g <i>Tetratriacontane</i> , .1 g <i>Triacontane</i> , .1 g <i>Tricosane</i> , .1 g <i>2,2,4-Trimethylpentane</i> , 1 g <i>n-Paraffin Mix C5,C6,C7,C8 (Supelco 47100)</i> <i>n-Paraffin Mix C7,C8,C9,C10 (Supelco 47101)</i> <i>n-Paraffin Mix C10,C12,C14,C16 (Supelco 47102)</i> <i>n-Paraffin Mix C18,C20,C22,C24 (Supelco 47108)</i> <i>n-Paraffin Mix C22,C24,C28,C32 (Supelco 47106)</i> <i>n-Paraffin Mix C24,C28,C32,C36 (Supelco 47107)</i>	

Qualitative n-Paraffin Mixes

For determining retention indices and retention times.

Description	Concentration	Cat. No.	Qty
<i>n</i> -Paraffin Mix C5,C6,C7,C8	(varied conc.)	47100	1 mg
<i>n</i> -Paraffin Mix C7,C8,C9,C10	(varied conc.)	47101	1 mg
<i>n</i> -Paraffin Mix C10,C12,C14,C16	(varied conc.)	47102	1 mg
<i>n</i> -Paraffin Mix C18,C20,C22,C24	2 % (w/w) each component in octane	47108	5 mL
<i>n</i> -Paraffin Mix C22,C24,C28,C32	2 % (w/w) each component in octane	47106	5 mL
<i>n</i> -Paraffin Mix C24,C28,C32,C36	2 % (w/w) each component in octane	47107	5 mL

ASTM® D5501

Use this quantitative calibration standards kit to determine if ethanol and gasoline fuel blends comply with federal and state laws. A certificate of analysis accompanies each kit.

Description	Concentration	Cat. No.	Qty
ASTM® D5501 Denatured Fuel Ethanol Standards Kit	(Seven individual solutions prepared wt/wt.) <i>Sol.#1 Ethanol:Heptane:Methanol</i> (92%, 7.40%, 0.60%) <i>Sol.#2 Ethanol:Heptane:Methanol</i> (93%, 6.50%, 0.50%) <i>Sol.#3 Ethanol:Heptane:Methanol</i> (94%, 5.60%, 0.40%) <i>Sol.#4 Ethanol:Heptane:Methanol</i> (95%, 4.70%, 0.30%) <i>Sol.#5 Ethanol:Heptane:Methanol</i> (96%, 3.80%, 0.20%) <i>Sol.#6 Ethanol:Heptane:Methanol</i> (97%, 2.90%, 0.10%) <i>Sol.#7 Ethanol:Heptane:Methanol</i> (98%, 1.95%, 0.05%)	40361-U	1 kit

Petroleum Standards

ASTM Petroleum Standards

ASTM® D5580

Aromatics in Gasoline

The following standards include calibration blends both with and without internal standard. The internal standard-free blends are packaged in quantities of approximately 9 mL to facilitate reference standard preparation. All calibration blends are provided with a chromatogram and data verifying the purity and identity of the raw material. All raw materials used are fully characterized, as described for ASTM D4815.

Description	Concentration	Cat. No.	Qty
ASTM® D5580 Quantitative Cal Mix 1	(Each component at nominal wt.% indicated.) Benzene, .09 % (w/w) Ethylbenzene, .45 % (w/w) 2-Hexanone, 10 % (w/w) Toluene, 13.5 % (w/w)	1,2,4-Trimethylbenzene, .9 % (w/w) 2,2,4-Trimethylpentane, 74.16 % (w/w) o-Xylene, .9 % (w/w)	47740-U 1 mL
ASTM® D5580 Quantitative Cal Mix 2	(Each component at nominal wt.% indicated.) Benzene, .45 % (w/w) Ethylbenzene, .9 % (w/w) 2-Hexanone, 10 % (w/w) Toluene, 9 % (w/w)	1,2,4-Trimethylbenzene, 9 % (w/w) 2,2,4-Trimethylpentane, 68.4 % (w/w) o-Xylene, 2.25 % (w/w)	47741-U 1 mL
ASTM® D5580 Quantitative Cal Mix 3	(Each component at nominal wt.% indicated.) Benzene, .9 % (w/w) Ethylbenzene, 2.25 % (w/w) 2-Hexanone, 10 % (w/w) Toluene, 4.5 % (w/w)	1,2,4-Trimethylbenzene, .45 % (w/w) 2,2,4-Trimethylpentane, 72.9 % (w/w) o-Xylene, 9 % (w/w)	47742-U 1 mL
ASTM® D5580 Quantitative Cal Mix 4	(Each component at nominal wt.% indicated.) Benzene, 1.8 % (w/w) Ethylbenzene, 4.5 % (w/w) 2-Hexanone, 10 % (w/w) Toluene, 2.25 % (w/w)	1,2,4-Trimethylbenzene, 4.5 % (w/w) 2,2,4-Trimethylpentane, 72.45 % (w/w) o-Xylene, 4.5 % (w/w)	47743-U 1 mL
ASTM® D5580 Calibration Mix 4	(Each component at nominal wt.% indicated.) Benzene, 2 % (w/w) Ethylbenzene, 5 % (w/w) Toluene, 2.5 % (w/w)	1,2,4-Trimethylbenzene, 5 % (w/w) 2,2,4-Trimethylpentane, 80.5 % (w/w) o-Xylene, 5 % (w/w)	47738-U 9 mL
ASTM® D5580 Quantitative Cal Mix 5	(Each component at nominal wt.% indicated.) Benzene, 4.5 % (w/w) Ethylbenzene, 9 % (w/w) 2-Hexanone, 10 % (w/w) Toluene, .9 % (w/w)	1,2,4-Trimethylbenzene, 2.25 % (w/w) 2,2,4-Trimethylpentane, 72.9 % (w/w) o-Xylene, .45 % (w/w)	47744-U 1 mL
ASTM® D5580 Valve Timing Calibration Blend	(Each component at nominal wt.% indicated.) Benzene, 4.5 % (w/w) Ethylbenzene, 9 % (w/w) 2-Hexanone, 10 % (w/w)	Toluene, 4.5 % (w/w) 2,2,4-Trimethylpentane, 63 % (w/w) o-Xylene, 9 % (w/w)	47731-U 1 mL
ASTM® D5580 Selectivity Check Standard	(Each component at nominal wt.% indicated.) Dodecane, 1.5 % (w/w)	2,2,4-Trimethylpentane, 98.5 % (w/w)	47732-U 1 mL
ASTM® D5580 Quantitative Calibration Kit	- Quantitative Calibration Mix 1 (47740-U), 1 mL Quantitative Calibration Mix 2 (47741-U), 1 mL Quantitative Calibration Mix 3 (47742-U), 1 mL Quantitative Calibration Mix 4 (47743-U), 1 mL	Quantitative Calibration Mix 5 (47744-U), 1 mL Valve Timing Calibration Mix (47731-U), 1 mL Selectivity Check Standard (47732-U), 1 mL	47734-U 1 kit
2-Hexanone	-	47733-U	5 mL

ASTM® D5769

Aromatics in Gasoline by GC-MS

Description	Concentration	Cat. No.	Qty
ASTM®/EPA Aromatics Internal Standard Mix	(each component at wt% indicated) Benzene- <i>d</i> ₆ , 40 % (w/w) Ethylbenzene- <i>d</i> ₁₀ , 40 % (w/w)	Naphthalene- <i>d</i> ₈ , 20 % (w/w)	47327 5 mL

ASTM® D6352/D7169

Use this reference material to establish GC detector response factors when determining the boiling point distribution of crude oils, vacuum residues and other petroleum fractions.

Description	Concentration	Cat. No.	Qty
ASTM® D6352/D7169 Reference Material 5010	-	40086-U	2 g

Petroleum Standards

Biofuel Standards

Biofuel Standards

DIN EN 14105

This method provides for the quantitative determination of free and total glycerin in 100% biodiesel fuel (B100 methyl esters) by high temperature gas chromatography after silylating the sample with N-methyl-N-(trimethylsilyl) trifluoroacetamide (MSTFA). EN 14105 method also recommends using a commercial monoglyceride mixture, such as Supelco's Monoglyceride Stock Solution (Cat. No. 49446-U), to aid in peak identification due to the possible overlapping of methyl ester and monoglyceride peaks in the chromatography.

This standard is shipped with a certificate of composition and instructions for sample derivatization.

EN 14105/D6584 Monoglyceride Stock Solution

▶ 10 mg/mL each component in pyridine, analytical standard

Components

Monoolein
Monopalmitin
Monostearin

49446-U

1 mL

ASTM® D6584

Our biodiesel impurities standards have been formulated to meet the requirements of ASTM D6584. This method provide for the quantitative determination of free and total glycerin in 100% biodiesel fuel (B100 methyl esters) by high temperature gas chromatography after silylating the sample with N-methyl-N-(trimethylsilyl) trifluoroacetamide (MSTFA). Each biodiesel standard is shipped with a certificate of composition. Instructions for sample derivatization are included with each kit.

Description	Concentration	Cat. No.	Qty
ASTM® D6584 Glycerin solution	500 µg/mL in pyridine	44892-U	1 mL
ASTM® D6584 Monoolein	5000 µg/mL in pyridine	44893-U	3 mL
ASTM® D6584 1,3-Diolein Solution	5000 µg/mL in pyridine	44894-U	2 mL
Triolein	5000 µg/mL in pyridine	44895-U	2 mL
ASTM® D6584 1,2,4-Butanetriol Solution, Internal Standard #1	1000 µg/mL in pyridine	44896-U	5 mL
ASTM® D6584 Tricaprin Solution, Internal Standard #2	8000 µg/mL in pyridine	44897-U	5 mL
ASTM® D6584 Individual Stock and Internal Standards Mix Kit		44898-U	1 kit
	ASTM® D6584 Glycerin solution (Supelco 44892-U), 1 mL ASTM® D6584 Monoolein (Supelco 44893-U), 3 mL ASTM® D6584 1,3-Diolein Solution (Supelco 44894-U), 2 mL	Triolein (Supelco 44895-U), 2 mL ASTM® D6584 1,2,4-Butanetriol Solution, Internal Standard #1 (Supelco 44896-U), 5 mL ASTM® D6584 Tricaprin Solution, Internal Standard #2 (Supelco 44897-U)	
ASTM® D6584 Standard Solution 1	in pyridine (varied) 1,3-Diolein, 50 µg/mL Glycerol, 5 µg/mL	44899-U	1 mL
		Monoolein, 100 µg/mL Glycerol trioleate, 50 µg/mL	
ASTM® D6584 Standard Solution 2	in pyridine (varied) 1,3-Diolein, 100 µg/mL Glycerol, 15 µg/mL	44914-U	1 mL
		Monoolein, 250 µg/mL Glycerol trioleate, 100 µg/mL	
ASTM® D6584 Standard Solution 3	in pyridine (varied) 1,3-Diolein, 200 µg/mL Glycerol, 25 µg/mL	44915-U	1 mL
		Monoolein, 500 µg/mL Glycerol trioleate, 200 µg/mL	
ASTM® D6584 Standard Solution 4	in pyridine (varied) 1,3-Diolein, 350 µg/mL Glycerol, 35 µg/mL	44916-U	1 mL
		Monoolein, 750 µg/mL Glycerol trioleate, 350 µg/mL	
ASTM® D6584 Standard Solution 5	in pyridine (varied) 1,3-Diolein, 500 µg/mL Glycerol, 50 µg/mL	44917-U	1 mL
		Monoolein, 1000 µg/mL Glycerol trioleate, 500 µg/mL	
ASTM® D6584 Individual Standard Solution & Internal Standards Kit		44918-U	1 kit
	ASTM® D6584 Standard Solution 1 (Supelco 44899-U), 1 mL ASTM® D6584 Standard Solution 2 (Supelco 44914-U), 1 mL ASTM® D6584 Standard Solution 3 (Supelco 44915-U), 1 mL ASTM® D6584 Standard Solution 4 (Supelco 44916-U), 1 mL	ASTM® D6584 Standard Solution 5 (Supelco 44917-U), 1 mL ASTM® D6584 1,2,4-Butanetriol Solution, Internal Standard #1 (Supelco 44896-U), 5 mL ASTM® D6584 Tricaprin Solution, Internal Standard #2 (Supelco 44897-U), 5 mL	

Petroleum Standards

Biofuel Standards

ASTM® D6584 (continued)

Description	Concentration	Cat. No.	Qty
EN 14105/D6584 Monoglyceride Stock Solution	10 mg/mL each component in pyridine	49446-U	1 mL
	<i>Monoolein</i> <i>Monopalmitin</i>		
	<i>Monostearin</i>		
N-Methyl-N-(trimethylsilyl)trifluoroacetamide	-	394866-10X1ML 394866-5ML 394866-25ML	10 × 1 mL 5 mL 25 mL

Fuel Ethanol

High yields of fuel ethanol require optimizing the corn-to-ethanol fermentation process. Proper monitoring of this fermentation process can be accomplished by using our Fuel Ethanol Residual Saccharides calibration standard (listed below) and a Supelcogel C-610H HPLC column. A certificate of analysis is included with each standard purchase.

Description	Concentration	Cat. No.	Qty
Fuel Ethanol Residual Saccharides Mix	in deionized water (varied)	44868-U	10 × 2 mL
	<i>Glycerol, 1 % (w/v)</i> <i>D-(+)-Glucose, 2 % (w/v)</i> <i>Maltotriose (DP₃), 1 % (w/v)</i> <i>Maltose monohydrate, 2 % (w/v)</i>		
	<i>L-(+)-Lactic acid, 3 % (w/v)</i> <i>Acetic acid, 3 % (w/v)</i> <i>Dextrin, 3.25 % (w/v)</i> <i>Ethanol, 12 % (w/v)</i>		

PNA/PONA/P-I-A-N-O Standards

P-I-A-N-O (Paraffins-Isoparaffins-Aromatics-Naphthenes-Olefins) standards are complex mixtures of known quantities of hydrocarbons, accurately prepared by weight to three decimal places. Use these mixes to determine retention times and indices, and to monitor response factors for components of complex hydrocarbon mixtures.

- Formulations are weight percent.
- Each mix includes a detailed data sheet listing components by weight percent, mole percent, liquid volume percent as well as retention times and retention indices for each component.
- A chromatogram from a 100-meter capillary column (including conditions) is provided.
- Products are supplied in a crimp-top vial with hole caps and septa.

Special product note: P-I-A-N-O Mix, Cat.No. 44593-U, contains 139 n-paraffins, isoparaffins, aromatics, naphthenes and olefins. Data sheets for each class of compounds list weight percent, mole percent, and other information for each component.

Description	Concentration	Cat. No.	Qty
n-Paraffins Mix	(typical values shown)	44585-U	0.1 mL
	<i>Pentane, 9.38 wt. %</i> <i>Hexane, 9.508 wt. %</i> <i>Heptane, 9.776 wt. %</i> <i>Octane, 9.544 wt. %</i> <i>Nonane, 9.042 wt. %</i> <i>Decane, 9.245 wt. %</i>		
	<i>Undecane, 9.313 wt. %</i> <i>Dodecane, 9.404 wt. %</i> <i>Tridecane, 8.907 wt. %</i> <i>Tetradecane, 8.792 wt. %</i> <i>Pentadecane, 7.087 wt. %</i>		
Isoparaffins Mix	(typical values shown)	44586-U	0.1 mL
	<i>3,3-Diethylpentane, 1.57 wt. %</i> <i>2,3-Dimethylbutane, .447 wt. %</i> <i>2,3-Dimethylheptane, 1.482 wt. %</i> <i>2,5-Dimethylheptane, 5.619 wt. %</i> <i>3,3-Dimethylheptane, 1.677 wt. %</i> <i>3,4-Dimethylheptane (L), 1.964 wt. %</i> <i>3,5-Dimethylheptane (L), .0001 wt. %</i> <i>3,4-Dimethylheptane (D), 1.707 wt. %</i> <i>3,5-Dimethylheptane (D)</i> <i>2,2-Dimethylhexane, 1.313 wt. %</i> <i>2,3-Dimethylhexane, 1.614 wt. %</i> <i>2,4-Dimethylhexane, 1.646 wt. %</i> <i>2,5-Dimethylhexane, 3.708 wt. %</i> <i>2,2-Dimethyloctane, 3.253 wt. %</i> <i>2,3-Dimethyloctane, 3.838 wt. %</i> <i>3,3-Dimethyloctane, 3.174 wt. %</i> <i>2,2-Dimethylpentane, 1.778 wt. %</i> <i>2,3-Dimethylpentane, 1.781 wt. %</i> <i>2,4-Dimethylpentane, 3.678 wt. %</i>		
	<i>3,3-Dimethylpentane, 1.86 wt. %</i> <i>3-Ethylhexane, .711 wt. %</i> <i>3-Ethylheptane, 3.687 wt. %</i> <i>3-Ethylpentane, .526 wt. %</i> <i>2-Methylbutane, 2.183 wt. %</i> <i>2-Methylheptane, 4.367 wt. %</i> <i>3-Methylheptane, 5.443 wt. %</i> <i>4-Methylheptane, 3.198 wt. %</i> <i>2-Methylhexane, 2.359 wt. %</i> <i>3-Methylhexane, 1.602 wt. %</i> <i>2-Methylnonane, 3.708 wt. %</i> <i>3-Methylnonane, 5.756 wt. %</i> <i>2-Methyloctane, 3.75 wt. %</i> <i>3-Methyloctane, 5.598 wt. %</i> <i>2-Methylpentane, 3.258 wt. %</i> <i>3-Methylpentane, 5.356 wt. %</i> <i>2,2,3-Trimethylbutane, 3.913 wt. %</i> <i>2,2,3-Trimethylpentane, 1.721 wt. %</i>		

Petroleum Standards

PNA/PONA/P-I-A-N-O Standards

Description	Concentration	Cat. No.	Qty	
Aromatics Mix	(typical values shown) Benzene, 7.099 wt. % Butylbenzene, 2.196 wt. % sec-Butylbenzene, 2.238 wt. % tert-Butylbenzene, 4.57 wt. % 1-tert-Butyl-3,5-dimethylbenzene, 2.15 wt. % 1-tert-Butyl-4-ethylbenzene, 2.225 wt. % tert-1-Butyl-2-methylbenzene, .764 wt. % 1,2-Diethylbenzene, 1.088 wt. % 1,2-Dimethyl-3-ethylbenzene, 2.176 wt. % 1,2-Dimethyl-4-ethylbenzene, 2.243 wt. % 1,3-Dimethyl-2-ethylbenzene, 1.138 wt. % 1,3-Dimethyl-5-ethylbenzene, 2.186 wt. % 1,4-Dimethyl-2-ethylbenzene, 2.272 wt. % Ethylbenzene, 6.723 wt. % Hexylbenzene, 4.463 wt. % Isobutylbenzene, 4.39 wt. % Cumene, 2.211 wt. % 2-Methylbutylbenzene, 1.137 wt. % 1-Methyl-2-ethylbenzene, 2.237 wt. %	1-Methyl-3-ethylbenzene, 2.188 wt. % 1-Methyl-4-ethylbenzene, 2.156 wt. % 1-Methyl-2-isopropylbenzene, 1.12 wt. % 1-Methyl-3-isopropylbenzene, 1.102 wt. % 1-Methyl-4-isopropylbenzene, 1.065 wt. % 1-Methyl-2-n-propylbenzene, 2.231 wt. % 1-Methyl-3-n-propylbenzene, 2.1 wt. % 1-Methyl-4-n-propylbenzene, 2.212 wt. % Pentylbenzene, 4.443 wt. % Propylbenzene, 4.532 wt. % 1,2,4,5-Tetramethylbenzene, .238 wt. % Toluene, 4.55 wt. % 1,2,4-Triethylbenzene, 1.107 wt. % 1,3,5-Triethylbenzene, 4.525 wt. % 1,2,4-Trimethylbenzene, 2.523 wt. % 1,3,5-Trimethylbenzene, 1.12 wt. % o-Xylene, 2.245 wt. % m-Xylene, 2.256 wt. % p-Xylene, 4.784 wt. %	44587	0.1 mL
Naphthenes Mix	(typical values shown) n-Butylcyclopentane, 3.724 wt. % Cyclohexane, 5.4 wt. % Cyclopentane, 4.97 wt. % cis-1,2-Dimethylcyclohexane, 3.725 wt. % trans-1,2-Dimethylcyclohexane, 1.669 wt. % trans-1,4-Dimethylcyclohexane, 3.557 wt. % 1,1-Dimethylcyclopentane, 3.483 wt. % trans-1,2-Dimethylcyclopentane, 1.468 wt. % cis-1,3-Dimethylcyclopentane, .604 wt. % trans-1,3-Dimethylcyclopentane, 2.749 wt. % Ethylcyclopentane, 3.575 wt. % 1-Ethyl-1-methylcyclopentane, 1.076 wt. % Isobutylcyclohexane, 5.639 wt. % Isobutylcyclopentane, 3.727 wt. % Isopropylcyclohexane, 5.77 wt. %	Isopropylcyclopentane, 3.511 wt. % Methylcyclohexane, 5.711 wt. % Methylcyclopentane, 3.269 wt. % t-1-Methyl-2-(4MP)cyclopentane, 3.795 wt. % trans-1-Methyl-2-propylcyclohexane, 3.289 wt. % Propylcyclopentane, 3.677 wt. % 1,1,2-Trimethylcyclohexane, 3.371 wt. % 1,1,4-Trimethylcyclohexane, 3.68 wt. % cis,trans,cis-1,2,4-Trimethylcyclohexane, 3.541 wt. % % cis,trans,trans-1,2,4-Trimethylcyclohexane, 3.634 wt. % cis,cis,cis-1,3,5-Trimethylcyclohexane, 3.558 wt. % cis,cis,cis-1,2,3-Trimethylcyclopentane, .808 wt. % cis,trans,cis-1,2,3-Trimethylcyclopentane, 1.586 wt. % cis,trans,cis-1,2,4-Trimethylcyclopentane, 1.673 wt. % cis,trans,trans-1,2,4-Trimethylcyclopentane, 3.76 wt. %	44588	0.1 mL
Olefins Mix	(typical values shown) 1-Decene, 7.348 wt. % 1-Heptene, 7.701 wt. % cis-2-Heptene, 5.821 wt. % trans-2-Heptene, 3.77 wt. % cis-3-Heptene, 5.918 wt. % trans-3-Heptene, 3.725 wt. % 1-Hexene, 7.753 wt. % cis-2-Hexene, 3.962 wt. % trans-2-Hexene, 1.776 wt. % Isoprene, 2.47 wt. % 2-Methyl-1-butene, 1.466 wt. % 3-Methyl-1-butene, 2.015 wt. % 2-Methyl-2-pentene, 3.402 wt. %	4-Methyl-1-pentene, 3.478 wt. % 1-Nonene, 7.778 wt. % cis-2-Nonene, 2.776 wt. % trans-2-Nonene, 1.012 wt. % cis-3-Nonene, 4.074 wt. % trans-3-Nonene, 1.88 wt. % 1-Octene, 7.804 wt. % cis-2-Octene, 3.982 wt. % trans-2-Octene, 2 wt. % 1-Pentene, 4.214 wt. % cis-2-Pentene, 2.023 wt. % trans-2-Pentene, 1.849 wt. %	44589	0.1 mL
P-I-A-N-O Mix	(typical values shown) n-Paraffins, 18.9 % (w/w) Isoparaffins, 18.8 % (w/w) Aromatics, 23.3 % (w/w)	Naphthenes, 20.5 % (w/w) Olefins, 18.5 % (w/w)	44593-U	0.1 mL
P-I-A-N-O Kit	- n-Paraffins Mix (44585-U), 0.1 mL Isoparaffins Mix (44586-U), 0.1 mL Aromatics Mix (44587), 0.1 mL	Naphthenes Mix (44588), 0.1 mL Olefins Mix (44589), 0.1 mL P-I-A-N-O Mix (44593-U), 0.1 mL	44594-U	1 kit

Pharmaceutical Standards

Secondary Pharmaceutical Standards

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Secondary Pharmaceutical Standards

Quality, Performance, Compliance

Certified Fluka pharmaceutical secondary standards offer the pharmaceutical analyst an attractive alternative to traditional reference standards from the Pharmacopeia's. Compared to and qualified against reference standards from the United States Pharmacopeia, the European Pharmacopoeia, and the British Pharmacopoeia (where available), compliance with multiple international requirements can be met with one vial. These Standards are Certified under Double Accreditation, ISO/IEC 17025 + ISO Guide 34, "The Gold Standard", representing the highest quality achievement. The FDA, USP and EP all recognize the use of secondary standards or working standards that are established with reference to the corresponding primary standard. See specifics for Regulatory Recognition of Secondary Standards sigma-aldrich.com/pharmastandards. A comprehensive Certificate of Analysis compliant with ISO Guide 31 provides documented traceability and comparison to the pharmacopeial standards as well certified purity and supporting analytical data.

The product line includes standards for:

- API's
- Impurities
- Excipients
- Residual Solvents
- Melting Point Standards
- Vitamins and Amino Acids

CAS No.	Description	Traceable To USP	Traceable To EP	Traceable To BP	Cat. No.	Qty
188062-50-2	Abacavir sulfate	1000408	Y0001561	-	PHR1256-500MG	500 mg
103-90-2	Acetaminophen	1003009	P030000	371	PHR1005-1G	1 g
103-84-4	Acetanilide melting point standard	1004001	-	-	PHR1086-1G	1 g
616-91-1	N-Acetyl-L-cysteine	1009005	A0150000	-	PHR1098-1G	1 g
1218-34-4	N-Acetyl-L-tryptophan	1700523	A0208000	-	PHR1177-500MG	500 mg
537-55-3	N-Acetyl-L-tyrosine	1010106	-	-	PHR1173-1G	1 g
58-61-7	Adenosine	1012123	A0230200	-	PHR1138-1G	1 g
56-41-7	L-Alanine	1012509	A0325000	-	PHR1110-1G	1 g
51022-70-9	Albuterol sulfate	1012633	S0150000	302	PHR1053-1G	1 g
60-32-2	Aminocaproic acid	1021000	A0420000	-	PHR1224-1G	1 g
121-30-2	4-Amino-6-chloro-1,3-benzendisulfonamide	1057507	-	-	PHR1192-500MG	500 mg
591-27-5	3-Aminophenol	1026004	-	-	PHR1225-500MG	500 mg
123-30-8	4-Aminophenol	1021204	-	-	PHR1148-1G	1 g
19774-82-4	Amiodarone hydrochloride	1027302	A0575000	532	PHR1164-1G	1 g
111470-99-6	Amlodipine besylate	1029501	Y0000049	-	PHR1185-1G	1 g
61336-70-7	Amoxicillin trihydrate	1031503	A0800000	19	PHR1127-1G	1 g
104-46-1	Anethole	1035005	-	-	PHR1218-2.2ML	2.2 mL
100-66-3	Anisole	1037011	-	-	PHR1212-3X1.2ML	3 x 1.2 mL
74-79-3	L-Arginine	1042500	A1270000	-	PHR1106-1G	1 g
50-81-7	L-Ascorbic acid	1043003	A1300000	461	PHR1008-2G	2 g
56-84-8	L-Aspartic acid	1043819	A1330000	-	PHR1104-1G	1 g
50-78-2	Aspirin	1044006	A0200000	617	PHR1003-1G	1 g
70356-09-1	Avobenzene	1045337	-	-	PHR1073-1G	1 g
117772-70-0	Azithromycin dihydrate	1046056	Y0000306	-	PHR1088-1G	1 g
100-52-7	Benzaldehyde	1050905	-	-	PHR1203-3X1ML	3 x 1 mL
94-09-7	Benzocaine	1054000	-	-	PHR1158-1G	1 g
65-85-0	Benzoic acid	1055002	-	-	PHR1050-1G	1 g
119-61-9	Benzophenone	-	Y0000647	-	PHR1204-1G	1 g
106-51-4	1,4-Benzoquinone	1056504	-	-	PHR1028-1G	1 g
100-51-6	Benzyl alcohol	1061901	Y0000167	-	PHR1019-1G	1 g
120-51-4	Benzyl benzoate	1062008	-	-	PHR1213-5G	5 g
58-85-5	Biotin	1071508	B1116000	-	PHR1233-1G	1 g
51333-22-3	Budesonide	1078201	-	-	PHR1178-500MG	500 mg
18010-40-7	Bupivacaine hydrochloride	1078507	B1160000	479	PHR1128-1G	1 g
123-86-4	Butyl acetate	1082606	-	-	PHR1211-3X1.2ML	3 x 1.2 mL
25013-16-5	Butylated hydroxyanisole	-	-	-	PHR1304-1G	1 g
128-37-0	Butylated Hydroxytoluene	1092708	B1215000	-	PHR1117-1G	1 g
121-00-6	3-tert-Butyl-4-hydroxyanisole	1083100	-	-	PHR1306-500MG	500 mg
94-26-8	Butylparaben	1084000	B1217000	-	PHR1022-1G	1 g
58-08-2	Caffeine	1085003	C0100000	766	PHR1009-1G	1 g
58-08-2	Caffeine melting point standard	1086006	-	-	PHR1095-1G	1 g

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CAS No.	Description	Traceable To USP	Traceable To EP	Traceable To BP	Cat. No.	Qty
137-08-6	Calcium-D-pantothenate	1087009	C0400000	-	PHR1232-500MG	500 mg
464-49-3	D-Camphor	1087508	C0405000	-	PHR1119-1G	1 g
124-07-2	Caprylic acid	1091040	C0426000	-	PHR1202-1G	1 g
298-46-4	Carbamazepine	1093001	C0450000	-	PHR1067-1G	1 g
7235-40-7	β-Carotene	1065480	-	-	PHR1239-1G	1 g
36653-82-4	Cetyl Alcohol	1103003	C0990000	-	PHR1133-1G	1 g
6004-24-6	Cetylpyridinium chloride	1104006	C1000000	-	PHR1226-1G	1 g
56-95-1	Chlorhexidine acetate	1111103	C1520000	68	PHR1222-500MG	500 mg
539-03-7	4'-Chloroacetanilide	-	-	-	PHR1149-1G	1 g
106-47-8	p-Chloroaniline	1111908	-	-	PHR1200-1G	1 g
5162-03-8	2-Chlorobenzophenone	-	Y0000279	-	PHR1183-500MG	500 mg
58-94-6	Chlorothiazide	1121005	C1700000	76	PHR1179-500MG	500 mg
113-92-8	(±)-Chlorpheniramine maleate salt	1123102	C1800000	81	PHR1016-500MG	500 mg
67-97-0	Cholecalciferol	1131009	C2100000	787	PHR1237-500MG	500 mg
51481-61-9	Cimetidine	1134062	C2175000	475	PHR1075-1G	1 g
70059-30-2	Cimetidine hydrochloride	1134073	C2175500	-	PHR1089-1G	1 g
85721-33-1	Ciprofloxacin	1134313	-	-	PHR1167-1G	1 g
86393-32-0	Ciprofloxacin hydrochloride monohydrate	1134335	C2190000	-	PHR1044-1G	1 g
77-92-9	Citric acid, Anhydrous	1134368	A1202000	-	PHR1071-1G	1 g
81103-11-9	Clarithromycin	1134379	Y0000320	833	PHR1038-500MG	500 mg
58207-19-5	Clindamycin hydrochloride	1136002	-	-	PHR1159-1G	1 g
24729-96-2	Clindamycin 2-phosphate	1138008	C2269000	-	PHR1021-1G	1 g
23593-75-1	Clotrimazole	1141002	C2430000	379	PHR1058-1G	1 g
98-82-8	Cumene	1151709	-	-	PHR1210-3X1.2ML	3 × 1.2 mL
68-19-9	Cyanocobalmin	1152009	C3000000	466	PHR1234-1G	1 g
59865-13-3	Cyclosporin A	1158504	C2163000	-	PHR1092-500MG	500 mg
7048-04-6	L-Cysteine hydrochloride monohydrate	1161509	C3290000	-	PHR1102-1G	1 g
64-17-5	Dehydrated Alcohol	1012772	-	-	PHR1070-5X1.2ML	5 × 1.2 mL
81-13-0	Dexpanthenol	1179504	D0730000	-	PHR1228-500MG	500 mg
6700-34-1	Dextromethorphan hydrobromide monohydrate	1181007	D0740000	-	PHR1018-500MG	500 mg
109-43-3	Dibutyl sebacate	1187091	-	-	PHR1216-3X1.2ML	3 × 1.2 mL
15307-79-6	Diclofenac sodium salt	118880	S0765000	619	PHR1144-1G	1 g
111-46-6	Diethylene glycol	1193265	Y0000217	-	PHR1045-1G	1 g
120-14-9	3,4-Dimethoxybenzaldehyde	1711439	-	-	PHR1194-500MG	500 mg
93-03-8	3,4-Dimethoxybenzyl alcohol	1711440	-	-	PHR1193-500MG	500 mg
147-24-0	Diphenhydramine hydrochloride	1218005	D2000000	-	PHR1015-1G	1 g
62-31-7	Dopamine hydrochloride	1225204	D2690000	468	PHR1090-1G	1 g
24390-14-5	Doxycycline hyclate	1226003	D3000000	780	PHR1145-1G	1 g
6381-92-6	Edetate disodium dihydrate	1233009	D2900000	-	PHR1068-1G	1 g
50-14-6	Ergocalciferol	1239005	E0900000	788	PHR1238-500MG	500 mg
114-07-8	Erythromycin	1242000	E1305000	794	PHR1039-1G	1 g
107-21-1	Ethylene glycol	1265515	-	-	PHR1046-1G	1 g
120-47-8	Ethylparaben	1267000	E2425000	-	PHR1011-1G	1 g
76824-35-6	Famotidine	1269200	F0050000	653	PHR1055-1G	1 g
49562-28-9	Fenofibrate	1269447	F0048000	-	PHR1246-500MG	500 mg
86386-73-4	Fluconazole	1271700	-	-	PHR1160-1G	1 g
86393-33-1	Fluoroquinolonic acid	1278302	-	-	PHR1174-500MG	500 mg
51-21-8	Fluorouracil	12790000	F0250000	995	PHR1227-500MG	500 mg
59-30-3	Folic acid	1286005	F0300000	-	PHR1035-1G	1 g
57-48-7	D-(-)-Fructose	1286504	F0550000	-	PHR1002-1G	1 g
54-31-9	Furosemide	1287008	F0700000	547	PHR1057-1G	1 g
60142-96-3	Gabapentin	1287303	-	-	PHR1049-1G	1 g
59-23-4	Galactose	1287700	G0050000	-	PHR1206-500MG	500 mg
66-84-2	Glucosamine hydrochloride	1294207	Y0001406	-	PHR1199-500MG	500 mg
50-99-7	D-(+)-Glucose	1181302	G03505000	-	PHR1000-1G	1 g
56-86-0	L-Glutamic acid	1294976	G0355000	-	PHR1107-1G	1 g
56-85-9	L-Glutamine	1294808	-	-	PHR1125-1G	1 g
56-81-5	Glycerin	1295607	G0400000	-	PHR1020-5G	5 g
56-40-6	Glycine	1295800	G0450000	-	PHR1111-1G	1 g
90-05-1	Guaiacol	1300004	Y0000619	-	PHR1136-1.5G	1.5 g
93-14-1	Guaifenesin	1301007	G0700000	-	PHR1027-1G	1 g
73-40-5	Guanine	1302156	-	879	PHR1243-500MG	500 mg

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CAS No.	Description	Traceable To USP	Traceable To EP	Traceable To BP	Cat. No.	Qty
71-00-1	L-Histidine	1308505	H0750000	-	PHR1108-1G	1 g
118-56-9	Homosalate	1311408	-	-	PHR1085-1G	1 g
58-93-5	Hydrochlorothiazide	1314009	H1200000	186	PHR1032-1G	1 g
50-23-7	Hydrocortisone	1316004	H1300000	576	PHR1014-500MG	500 mg
99-96-7	4-Hydroxybenzoic acid	1609013	-	-	PHR1048-1G	1 g
15687-27-1	Ibuprofen	1335508	I0020000	539	PHR1004-1G	1 g
288-32-4	Imidazole	1336500	I0086000	-	PHR1180-500MG	500 mg
53-86-1	Indomethacin	1341001	I0200000	-	PHR1247-500MG	500 mg
38861-78-8	4'-Isobutylacetophenone	1335541	-	-	PHR1146-500MG	500 mg
73-32-5	L-Isoleucine	1349502	I0460000	-	PHR1099-1G	1 g
110-27-0	Isopropyl myristate	1350400	I0750000	-	PHR1123-1G	1 g
142-91-6	Isopropyl palmitate	1350603	I0725000	-	PHR1137-1G	1 g
4759-48-2	Isotretinoin	1353500	I0800000	-	PHR1188-3X100MG	3 × 100 mg
74103-07-4	Ketorolac Tromethamine	1356665	Y0000486	-	PHR1140-500MG	500 mg
50-21-5	Lactic acid	1356734	-	-	PHR1215-3X1.5ML	3 × 1.5 mL
64044-51-5	D-Lactose monohydrate	1356701	L0100000	-	PHR1024-1G	1 g
63-42-3	Lactose, Anhydrous	1356676	A1206000	-	PHR1025-1G	1 g
61-90-5	L-Leucine	1357001	L0375000	-	PHR1105-1G	1 g
137-58-6	Lidocaine	1366002	L0595000	727	PHR1034-1G	1 g
83915-83-7	Lisinopril	1368609	L0702000	695	PHR1143-1G	1 g
34552-83-5	Loperamide hydrochloride	1370000	L0750000	635	PHR1162-1G	1 g
657-27-2	L-Lysine monohydrochloride	1372005	L0900000	-	PHR1101-1G	1 g
57282-49-2	L-Lysine Acetate	1371501	Y0000397	-	PHR1096-1G	1 g
585-88-6	Maltitol	1374907	M0160000	-	PHR1248-500MG	500 mg
69-65-8	D-Mannitol	1375105	M0200000	-	PHR1007-1G	1 g
2216-51-5	L-Menthol	1381709	M0350000	-	PHR1116-1G	1 g
89-57-6	Mesalamine	1392705	Y0000297	-	PHR1060-1G	1 g
1115-70-4	Metformin hydrochloride	1396309	M0605000	-	PHR1084-500MG	500 mg
63-68-3	L-Methionine	1411504	M0960000	-	PHR1241-1G	1 g
693-98-1	2-Methylimidazole	-	Y0001320	-	PHR1181-500MG	500 mg
696-23-1	2-Methyl-5-nitroimidazole	1667530	Y0000087	-	PHR1195-500MG	500 mg
99-76-3	Methylparaben	1432005	M1650000	-	PHR1012-1G	1 g
109-08-0	2-Methylpyrazine	-	Y0001376	-	PHR1223-500MG	500 mg
119-36-8	Methyl salicylate	1537450	-	-	PHR1214-3.2ML	3.2 mL
-	Metoclopramide Hydrochloride	1440808	M1825000	357	PHR1132-1G	1 g
56392-17-7	(±)-Metoprolol (+)-tartrate salt	1441301	M1830000	540	PHR1076-1G	1 g
443-48-1	Metronidazole	1442009	M1850000	603	PHR1052-1G	1 g
22832-87-7	(±)-Miconazole nitrate salt	1443500	M1900000	253	PHR1163-1G	1 g
544-63-8	Myristic acid	1448990	-	-	PHR1124-1G	1 g
22204-53-1	Naproxen	1457301	N0250000	435	PHR1040-500MG	500 mg
26159-34-2	Naproxen sodium	1457403	-	-	PHR1165-1G	1 g
98-92-0	Niacinamide	1462006	N0600000	460	PHR1033-1G	1 g
67-20-9	Nitrofurantoin	1464001	-	-	PHR1191-1G	1 g
59-87-0	Nitrofurazone	1465004	N0950000	-	PHR1196-1G	1 g
100-02-7	4-Nitrophenol	-	-	-	PHR1150-1G	1 g
5466-77-3	Octinoxate	1477900	-	-	PHR1080-1G	1 g
118-60-5	Octisalate	1477943	-	-	PHR1081-1G	1 g
6197-30-4	Octocrylene	1477411	-	-	PHR1083-1G	1 g
5333-42-6	Octyldodecanol	1477808	O0101000	-	PHR1155-1G	1 g
82419-36-1	Ofloxacin	1478108	-	-	PHR1168-1G	1 g
73590-58-6	Omeprazole	1478505	O0150000	765	PHR1059-1G	1 g
103639-04-9	Ondansetron Hydrochloride	1478582	Y0000218	-	PHR1141-1G	1 g
131-57-7	Oxybenzone	1485001	-	-	PHR1074-1G	1 g
57-10-3	Palmitic acid	1492007	P0090000	-	PHR1120-1G	1 g
540-10-3	Palmityl palmitate	1103105	-	-	PHR1166-1G	1 g
61-25-6	Papaverine hydrochloride	1496008	P0270000	76	PHR1182-500MG	500 mg
71-41-0	1-Pentanol	1504955	-	-	PHR1217-3X1.2ML	3 × 1.2 mL
62-44-2	Phenacetin melting point standard	1514008	-	-	PHR1094-1G	1 g
108-95-2	Phenol	1524806	-	-	PHR1047-1G	1 g
122-99-6	2-Phenoxyethanol	1526200	P0950000	-	PHR1121-1.5G	1.5 g
63-91-2	L-Phenylalanine	1530503	P1150000	-	PHR1100-1G	1 g
61-76-7	(R)-(-)-Phenylephrine hydrochloride	1533002	P1250000	284	PHR1017-500MG	500 mg
60-12-8	Phenylethyl Alcohol	1533250	-	-	PHR1122-1.5G	1.5 g

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CAS No.	Description	Traceable To USP	Traceable To EP	Traceable To BP	Cat. No.	Qty
118-55-8	Phenyl salicylate melting point standard	1534209	-	-	PHR1152-1G	1 g
57-41-0	Phenytioin	1535008	P1290000	-	PHR1139-1G	1 g
84-80-0	Phytonadione	1538006	-	-	PHR1078-1G	1 g
299-27-4	Potassium gluconate	1550001	-	-	PHR1130-1G	1 g
24634-61-5	Potassium sorbate	1548407	P2650000	-	PHR1278-1G	1 g
50-24-8	Prednisolone	1555005	P2700000	464	PHR1043-500MG	500 mg
53-03-2	Prednisone	1559006	P2900000	553	PHR1042-1G	1 g
614-39-1	Procainamide hydrochloride	1563502	P3050000	-	PHR1252-500MG	500 mg
51-05-8	Procaine hydrochloride	1564006	-	-	PHR1161-1G	1 g
57-83-0	Progesterone	1568007	P3300000	449	PHR1142-1G	1 g
67-63-0	2-Propanol	1570428	-	-	PHR1072-3X1.2ML	3 × 1.2 mL
57-55-6	Propylene glycol	1576708	-	-	PHR1051-1.5G	1.5 g
121-79-9	Propyl gallate	1576800	P3640000	-	PHR1118-1G	1 g
94-13-3	Propylparaben	1577008	P3650000	-	PHR1010-1G	1 g
9003-39-8	Povidone	1551503	-	-	PHR1250-500MG	500 mg
58-56-0	Pyridoxine hydrochloride	1587001	P4100000	458	PHR1036-500MG	500 mg
66357-59-3	Ranitidine hydrochloride	1598405	R0150000	471	PHR1026-500MG	500 mg
127-47-9	Retinyl acetate	1716002	R0300000	-	PHR1236-1G	1 g
79-81-2	Retinyl palmitate	1602502	-	-	PHR1235-1G	1 g
83-88-5	(-)-Riboflavin	1603006	R060000	-	PHR1054-1G	1 g
69-72-7	Salicylic acid	1609002	S020000	775	PHR1013-1G	1 g
56-45-1	L-Serine	1612506	S0450000	-	PHR1103-1G	1 g
532-32-1	Sodium benzoate	1613564	-	-	PHR1231-1G	1 g
25155-30-0	Sodium dodecylbenzenesulfonate	1623637	-	-	PHR1305-1G	1 g
867-56-1	Sodium L-lactate	1614308	-	-	PHR1113-1G	1 g
50-70-4	D-Sorbitol	1617000	S100000	-	PHR1006-1G	1 g
57-11-4	Stearic Acid	1621008	S1340000	-	PHR1114-1G	1 g
112-92-5	Stearyl Alcohol	1622000	S1350000	-	PHR1115-1G	1 g
57-50-1	Sucrose	1623637	S1600000	-	PHR1001-1G	1 g
723-46-6	Sulfamethoxazole	1631001	S2100000	314	PHR1126-1G	1 g
63-74-1	Sulfanilamide melting point standard	1633007	-	-	PHR1093-1G	1 g
144-83-2	Sulfapyridine melting point standard	1635002	-	-	PHR1087-1G	1 g
107-35-7	Taurine	1643361	-	-	PHR1109-1G	1 g
136-47-0	Tetracaine hydrochloride	1650006	T0500000	-	PHR1129-1G	1 g
64-75-5	Tetracycline hydrochloride	1651009	T060000	480	PHR1041-500MG	500 mg
112-72-1	1-Tetradecanol	1449008	-	-	PHR1135-1G	1 g
58-55-9	Theophylline	1653004	T080000	327	PHR1023-1G	1 g
58-55-9	Theophylline melting point standard	1653117	-	-	PHR1151-1G	1 g
67-03-8	Thiamine hydrochloride	1656002	Y0000467	-	PHR1037-1G	1 g
72-19-5	L-Threonine	1667202	T1340000	-	PHR1242-500MG	500 mg
89-83-8	Thymol	1449008	-	-	PHR1134-1G	1 g
32986-56-4	Tobramycin	1667508	T1500000	333	PHR1079-1G	1 g
10191-41-0	(±)-α-Tocopherol	1667600	T1550000	-	PHR1031-500MG	500 mg
7695-91-2	D,L-α-Tocopherol acetate	1667701	T1600000	-	PHR1030-500MG	500 mg
4345-03-3	D-α-Tocopherol succinate	1667803	T1610000	-	PHR1029-500MG	500 mg
302-79-4	Tretinoin	1674004	T1850000	-	PHR1187-3X100MG	3 × 100 mg
77-90-7	Tributyl 2-acetylcitrate	1009901	Y0001055	-	PHR1156-1G	1 g
77-94-1	Tributyl citrate	1680608	-	-	PHR1154-1G	1 g
126-73-8	Tributyl phosphate	-	Y0000279	-	PHR1205-0.5ML	0.5 mL
101-20-2	3,4,4'-Trichlorocarbaniilide	-	-	-	PHR1303-500MG	500 mg
77-89-4	Triethyl 2-acetylcitrate	1009923	-	-	PHR1157-1G	1 g
77-93-0	Triethyl citrate	1683606	-	-	PHR1153-1G	1 g
738-70-5	Trimethoprim	1692505	T220000	344	PHR1056-1G	1 g
73-22-3	Tryptophan	1700501	-	-	PHR1176-1G	1 g
60-18-4	L-Tyrosine	1705006	T2900000	-	PHR1097-1G	1 g
72-18-4	L-Valine	1708503	-	-	PHR1172-1G	1 g
99-66-1	Valproic acid	1708707	V0033000	-	PHR1061-1G	1 g
121-33-5	Vanillin	1710006	V0050000	-	PHR1245-1G	1 g
121-33-5	Vanillin melting point standard	1711009	-	-	PHR1091-1G	1 g
152-11-4	(±)-Verapamil hydrochloride	1711202	V0100000	-	PHR1131-1G	1 g

Pharmaceutical Standards

USP Residual Solvent Standards

USP Residual Solvent Standards

Sigma-Aldrich now offers Fluka brand Certified Reference Materials (CRMs) for the analysis of Residual Solvents. These CRMs are Secondary Pharmaceutical Reference Standards and are traceable and qualified against the corresponding Pharmacopeial standards. A comprehensive Certificate of Analysis offers details of the methodology and results of the qualification.

Description	Concentration	Cat. No.	Qty
Residual Solvent - Methanol	in DMSO <i>Methanol</i>	PHR1170-3X1.2ML	3 × 1.2 mL
Residual Solvent - Methylene Chloride	in DMSO <i>Dichloromethane</i>	PHR1171-3X1.2ML	3 × 1.2 mL
Residual Solvents Mixture - Class I	in DMSO, Varied concentration <i>Benzene</i> <i>Carbon tetrachloride</i> <i>1,2-Dichloroethane</i>	<i>1,1-Dichloroethene solution</i> <i>1,1,1-Trichloroethane</i>	PHR1063-3X1.2ML 3 × 1.2 mL
Residual Solvents Mixture - Class IIA	in DMSO, Varied concentration <i>Acetonitrile</i> <i>Chlorobenzene</i> <i>trans-1,2-Dichloroethylene</i> <i>cis-1,2-Dichloroethene solution</i> <i>Dichloromethane</i> <i>1,4-Dioxane solution</i> <i>Methanol</i>	<i>Methylcyclohexane</i> <i>Tetrahydrofuran</i> <i>Toluene/acetonitrile solution</i> <i>Ethylbenzene</i> <i>p-Xylene</i> <i>m-Xylene</i> <i>o-Xylene</i>	PHR1064-3X1.2ML 3 × 1.2 mL
Residual Solvents Mixture - Class IIB	in DMSO <i>Chloroform, 60 µg/mL</i> <i>1,2-Dimethoxyethane, 100 µg/mL</i> <i>Hexane, 290 µg/mL</i> <i>3-Methyl-2-pentanone, 50 µg/mL</i>	<i>Nitromethane, 50 µg/mL</i> <i>Pyridine, 200 µg/mL</i> <i>Tetralin, 100 µg/mL</i> <i>Trichloroethylene, 80 µg/mL</i>	PHR1065-3X1.2ML 3 × 1.2 mL
Residual Solvents Mixture - Class IIC	in DMSO <i>N,N-Dimethylacetamide, 5.45 mg/mL</i> <i>N,N-Dimethylformamide, 4.4 mg/mL</i> <i>2-Ethoxyethanol, .8 mg/mL</i> <i>Ethylene glycol, 3.1 mg/mL</i>	<i>Formamide, 1.1 mg/mL</i> <i>2-Methoxyethanol, .25 mg/mL</i> <i>N-Methylpyrrolidone, 2.65 mg/mL</i> <i>Sulfolane, .8 mg/mL</i>	PHR1066-3X1.2ML 3 × 1.2 mL

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