Precleaned Certified

Certificate of Compliance

The enclosed containers have been chemically cleaned by using the specified USEPA cleaning procedures for low level chemical analysis. Representative containers have been tested by independent certified laboratories for their appropriate use. ESS containers meet and exceed the required detection limits established by the USEPA in SPECIFICATIONS AND GUIDANCE FOR CONTAMINANT-FREE SAMPLE CONTAINERS (OSWER Directive #9240.0-05A).

EXTRACTABLE ORGANIC COMPOUNDS (PROCEDURE 1)

Analyte	Quantitation Limit (ug/L)
PESTICIDES/PCB'S	
Alpha-BHC	<0.005
Beta-BHC	<0.005
Delta-BHC	<0.005
Gamma-BHC (Lindane)	<0.005
Heptachlor	<0.005
Aldrin	<0.005
Heptachlor Epoxide	<0.005
Endosulfan I	<0.005
Dieldrin	<0.005
4,4'-DDE	<0.005
Endrin	<0.005
Endosulfan II	<0.005
4,4'-DDD	<0.005
Endosulfan Sulfate	<0.005
4,4'-DDT	<0.005
Methoxychlor	<0.005
Endrin Ketone	<0.005
Endrin Aldehyde	<0.005
Alpha-Chlordane	<0.005
Gamma-Chlordane	<0.005
Toxaphene	<0.005
Aroclor-1016	<0.2
Aroclor-1221	<0.2
Aroclor-1232	<0.2
Aroclor-1242	<0.2
Aroclor-1248	<0.2
Aroclor-1254	<0.2
Aroclor-1260	<0.2
Aroclor-1262	<0.2
Aroclor-1268	<0.2
SEMIVOLATILES	
Phenol	<1
bis-(2-Chloroethyl) ether	<1
bis-(2-Chloroisopropyl) ether	<1
2-Chlorophenol	<1
2-Methylphenol	<1
2,2'-Oxybis-(1-Chloropropane)	<1
4-Methylphenol	<1
N-Nitroso-di-n-propylamine	<1
Hexachloroethane	<1
Nitrobenzene	<1
Isophorone	<1
2-Nitrophenol	<1
2,4-Dimethylphenol	<1
bis-(2-Chloroethoxy) methane	<1
2,4-Dichlorophenol	<1
1,2,4-Trichlorobenzene	<1
Naphthalene	<0.2
4-Chloroaniline	<1
Hexachlorobutadiene	<1
4-Chloro-3-Methylphenol	<1
2-Methylnaphthalene	<0.2
Hexachlorocyclopentadiene	<1
2,4,6-Tricholrophenol	<1
2,4,5-Tricholrophenol	<1
1,2-Diphenylhydrazene	<1
Carbazole	<1
2-Chloronaphthalene	<0.15
2-Nitroaniline	<1
Dimethylphthalate	<1
Acenaphthylene	<0.2
2,6-Dinitrotoluene	<1
3-Nitroaniline	<1
Acenaphthene	<0.2
2,4-Dinitrophenol	<5
4-Nitrophenol	<5
Dibenzofuran	<1
2,4-Dinitrotoluene	<1
Diethylphthalate	<1
4-Chlorophenyl-Phenylether	<1
Flourene	<0.15
4-Nitroaniline	<1.5
4,6-Dinitro-2-Methyphenol	<1
N-Nitrosodiphenylamine	<1
N-Nitrosodimethylamine	<1
4-Bromophenyl-Phenylether	<1
Hexachlorobenzene	<1
Pentachlorophenol	<1
Phenanthrene	<0.2
Anthracene	<0.1
Di-n-Butylphthalate	<0.2
Fluoroanthene	<0.1
Pyrene	<0.15
Butylbenzylphthalate	<1
1,2'-Dichlorobenzene	<1
1,3'-Dichlorobenzene	<1
1,4'-Dichlorobenzene	<1
3,3'-Dichlorobenzidine	<1
Benzo[a]anthracene	<0.15
Chyrsene	<0.1
bis-(2-Ethylhexyl) Phthalate	<1
Di-n-Octylphthalate	<1
Benzo[b]flouranthene	<0.2
Benzo[k]flouranthene	<0.15
Benzo[a]pyrene	<0.15
Indeno(1,2,3-cd)pyrene	<0.2
Dibenzo[a,h]anthracene	<0.15
Benzo[g,h,i]perylene	<0.15
Benzoic Acid	<5
Benzyl Alcohol	<1
1,1'-Biphenyl	<1
1,2,4,5-Tetrachlorobenzene	<1
1,4-Dinitrobenzene	<1
1-Methylnaphthalene	<1
2,3,4,6-Tetrachlorophenol	<1
2,6-Dichlorophenoll	<1
3-Methylphenol	<1
Aniline	<1
Azobenzene	<1
Benzaldehyde	<1
Benzidine	<1
Benzaldehyde	<1
Caprolactam	<1
Diphenylamine	<1
Pyridine	<1
TPH Diesel	**<50.00**

PURGEABLE VOLATILE ORGANIC COMPOUNDS (PROCEDURE 2)

Analyte	Quantitation Limit (ug/L)
Acetone	<2.0
Benzene	<0.1
Bromoform	<0.1
Bromobenzene	<0.1
Bromochloromethane	<0.1
Bromodichloromethane	<0.1
Bromomethane	<0.1
z-Butylbenzene	<0.1
n-Butylbenzene	<0.1
sec-Butylbenzene	<0.1
tert-Butylbenzene	<0.1
Carbon Tetrachloride	<0.1
Carbon Disulfide	<0.1
Chlorobenzene	<0.1
Chloroethane	<0.1
Chloromethane	<0.1
2-Chlorotoluene	<0.1
4-Chlorotoluene	<0.1
2,4-Chlorotoluene	<0.2
Chloroform	<0.1
Dibromomethane	<0.1
1,2-Dibro 3-Chloropropane	<0.1
Dibromochloromethane	<0.1
1,2-Dibromoethane (EDB)	<0.1
1,2-Dichlorobenzene	<0.1
1,3-Dichlorobenzene	<0.1
1,4-Dichlorobenzene	<0.1
Dichlorodifluoromethane	<0.1
1,1-Dichloroethane	<0.1
1,2-Dichloroethane	<0.1
1,1-Dichloroethene	<0.1
cis-1,2-Dichloroethene	<0.1
trans-1,2-Dichloroethene	<0.1
1,2-Dichloropropane	<0.1
1,3-Dichloropropane	<0.1
2,2-Dichloropropane	<0.1
1,1-Dichloropropene	<0.1
cis-1,3-Dichloropropene	<0.1
trans-1,3-Dichloropropene	<0.1
Ethylbenzene	<0.1
2-Hexanone	<0.5
Hexachlorobutadiene	<0.1
Isopropylbenzene	<0.1
4-Isopropyltoluene	<0.1
Methylene Chloride	<0.5
Napthalene	<0.5
Propylbenzene	<0.1
Styrene	<0.1
1,1,1,2-Tetrachloroethane	<0.1
1,1,2,2-Tetrachloroethane	<0.1
Tetrachloroethene	<0.1
Toluene	<0.1
1,2,3-Trichlorobenzene	<0.1
1,2,4-Trichlorobenzene	<0.1
1,1,1-Trichloroethane	<0.1
1,1,2-Trichloroethane	<0.1
Trichloroethene	<0.1
Trichlorofluoromethane	<0.1
Trichlorotrifluoroethane	<0.1
1,2,3-Trichloropropane	<0.005
1,2,3-Trimethylbenzene	<0.1
1,2,4-Trimethylbenzene	<0.1
1,3,5-Trimethylbenzene	<0.1
Vinyl Acetate	<0.5
Vinyl Chloride	<0.1
Methyl-Tert-Butyl-Ether	<0.1
4-Methyl-2-pentanone	<0.5
ethyl-tert-butylether	<0.1
tert-amylmethylether	<0.1
diisopropylether	<0.1
tert-butanol	<0.1
o-xylene	<0.1
m-xylene(1)	<0.2
p-xylene(1)	<0.2
p-xylene(1)	<0.2
1,1-Dichloroethane	<1
1,3-Dichloropropene, Total	<1
2-Butanone (MEK)	<1
Acrylonitrile	<1
Dichlorofluoromethane	<1
Ethanol	<1
Tetrahydrofuran	<1
TPH as Gasoline	**<50.00**

METALS, FLUORIDE, NITRATE & NITRITE COMPOUNDS (PROCEDURE 3)

Analyte	Detection Limit (ug/L)
Aluminum	<0.5
Antimony	<0.03
Arsenic	<0.01
Barium	<0.03
Beryllium	<0.01
Cadmium	<0.03
Calcium	<3
Chromium	<0.06
Cobalt	<0.01
Copper	<0.08
Iron	<3
Lead	<0.05
Magnesium	<4
Manganese	<0.1
Mercury	<0.2
Molybdenum	<0.5
Nickel	<0.05
Potassium	<50
Selenium	<0.5
Silver	<0.02
Sodium	<6
Thallium	<0.09
Tin	<0.01
Vanadium	<0.1
Zinc	<0.3
Fluoride	<1
Nitrate + Nitrite	<1

This certificate only applies to the enclosed containers and not to any added preservative (except HCl vials). ESS uses only Analytical Grade chemicals. All ESS PrePreserved® containers include a case label with the reagent manufacturer and their lot number. Chemical C of A's can be found online using their lot number. For additional assistance or questions, call 800 233-8424 or email at: essorders@essvial.com.

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