

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

### PURGEABLE VOLATILE ORGANIC COMPOUNDS (PROCEDURE 2)

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

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

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

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.

## ON-TIME PRODUCTS FOR ENVIRONMENTAL SAMPLING & ANALYSIS



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