

# QUALITY 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 | Fluoranthene                 | <0.1  | 2,6-Dichlorophenol         | <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    | Benidine                   | <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    | TPH Diesel                 | <50.00 |

### 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    | <0.005 | 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   | TPH as Gasoline            | <50.00 |

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

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

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](mailto:essorders@essvial.com).

## ON-TIME PRODUCTS FOR ENVIRONMENTAL SAMPLING & ANALYSIS



ESS PRODUCT NUMBER

PRODUCT LOT NUMBER

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1-800-233-8425

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