



Production Number: 00077610



Item Number: 316-0250

Item Description: 250mL WM HDPE Oblong

Group 1 is applicable

This is your Certificate for Thermo Scientific Certified Environmental Sample Containers product which has been prepared in accordance with Thermo Fisher Scientific Performance-Based Specifications. This product meets or exceeds analyte specifications established in the U.S. EPA "Specification and Guidance for Contaminant-free Sample Containers" for use in Superfund and other hazardous waste programs. Representative containers have been tested at periodic intervals by certified third-party laboratories in accordance with our quality procedures.

Group 1. Glass and HDPE Sample containers for use in the analysis of Metals

| Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) |
|-----------|---------------------------|--------------------|---------------------------|----------------------|---------------------------|-------------------|---------------------------|
| Aluminum | <80 | Calcium (all HDPE) | <100 | Magnesium | <100 | Selenium | <2 |
| Antimony | <5 | Chromium | <10 | Manganese | <10 | Silver | <5 |
| Arsenic | <2 | Cobalt | <10 | Mercury | <0.2 | Sodium | <500 |
| Barium | <20 | Copper | <5 | Nickel | <10 | Sodium (all HDPE) | <100 |
| Beryllium | <0.5 | Iron | <50 | Potassium | <750 | Thallium | <5 |
| Cadmium | <1 | Lead | <2 | Potassium (all HDPE) | <100 | Vanadium | <10 |
| Calcium | <500 | | | | | Zinc | <10 |

In addition to the above analytes, Thermo Scientific HDPE containers are certified for these analytes:

| Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) |
|---------------------|---------------------------|----------|---------------------------|-----------------------|---------------------------|---------|---------------------------|
| Chloride | <100 | Fluoride | <20 | Nitrite | <50 | Sulfate | <100 |
| Cyanide | <10 | Nitrate | <20 | Paraquat (amber only) | <0.4 | Sulfide | <30 |
| Diquat (amber only) | <1.0 | | | | | Sulfite | <1000 |

Group 2. Glass Sample Containers for use in the analysis of Semivolatiles and Pesticides/PCBs

| Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) |
|----------------------------|---------------------------|------------------------------|---------------------------|-----------------------------|---------------------------|
| Acenaphthene | <5 | Acenaphthylene | <5 | Anthracene | <5 |
| Benzo(a)anthracene | <5 | Benzo(a)pyrene | <5 | Benzo(b)fluoranthene | <5 |
| Benzo(k)fluoranthene | <5 | Benzo(g,h,i)perylene | <5 | Benzoic Acid | <20 |
| Benzyl Alcohol | <5 | 4-Bromophenyl-phenylether | <5 | Butylbenzylphthalate | <5 |
| 4-Chloroaniline | <5 | 4-Chloro-3-methylphenol | <5 | bis-(2-Chloroethoxy)methane | <5 |
| bis-(2-Chloroethyl)ether | <5 | bis-(2-Chloroisopropyl)ether | <5 | 2-Chloronaphthalene | <5 |
| 2-Chlorophenol | <5 | 4-Chlorophenyl-phenylether | <5 | Chrysene | <5 |
| Di-n-butylphthalate | <5 | Di-n-octylphthalate | <5 | Dibenzo(a,h)anthracene | <5 |
| Dibenzofuran | <5 | 1,2-Dichlorobenzene | <5 | 1,4-Dichlorobenzene | <5 |
| 1,3-Dichlorobenzene | <5 | 3,3'-Dichlorobenzidine | <5 | 2,4-Dichlorophenol | <5 |
| Diethylphthalate | <5 | Dimethylphthalate | <5 | 2,4-Dinitrotoluene | <5 |
| 4,6-Dinitro-2-methylphenol | <20 | 2,4-Dinitrophenol | <20 | Fluoranthene | <5 |
| 2,6-Dinitrotoluene | <5 | bis-(2-Ethylhexyl)phthalate | <5 | Hexachlorobutadiene | <5 |
| Fluorene | <5 | Hexachlorobenzene | <5 | Indeno(1,2,3-cd)pyrene | <5 |
| Hexachlorocyclopentadiene | <5 | Hexachloroethane | <5 | 2-Methylphenol | <5 |
| Isophorone | <5 | 2-Methylnaphthalene | <5 | 3-Nitroaniline | <20 |
| 4-Methylphenol | <5 | 2-Nitroaniline | <20 | N-Nitrosodimethylamine | <5 |
| 4-Nitroaniline | <20 | N-Nitroso-di-n-propylamine | <5 | Nitrobenzene | <5 |
| N-Nitrosodiphenylamine | <5 | Naphthalene | <5 | Pentachlorophenol | <20 |
| 2-Nitrophenol | <5 | 4-Nitrophenol | <20 | Pyrene | <5 |
| Phenanthrene | <5 | Phenol | <5 | 2,4,6-Trichlorophenol | <5 |
| 1,2,4-Trichlorobenzene | <5 | 2,4,5-Trichlorophenol | <20 | Aldrin | <0.01 |
| Azobenzene | <5 | Carbazole | <5 | Alpha-BHC | <0.01 |
| 4,4-DDD | <0.02 | Endosulfan II | <0.02 | Beta-BHC | <0.01 |
| 4,4-DDE | <0.02 | Endosulfan Sulfate | <0.02 | Delta-BHC | <0.01 |
| 4,4-DDT | <0.02 | Endrin | <0.02 | Gamma-BHC | <0.01 |
| Dieldrin | <0.02 | Endrin Aldehyde | <0.02 | Heptachlor Epoxide | <0.01 |
| Endosulfan I | <0.01 | Heptachlor | <0.01 | Alpha-Chlordane | <0.01 |
| Methoxychlor | <0.10 | Endrin Ketone | <0.02 | Aroclor-1016 | <0.20 |
| Gamma-Chlordane | <0.01 | Toxaphene | <0.30 | Aroclor-1242 | <0.20 |
| Aroclor-1221 | <0.20 | Aroclor-1232 | <0.20 | Aroclor-1260 | <0.20 |
| Aroclor-1248 | <0.20 | Aroclor-1254 | <0.20 | | |
| Aroclor-1262 | <0.20 | Aroclor-1268 | <0.20 | | |

Group 3. Glass Sample Containers for use in the analysis of Volatiles

| Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) | Analyte | Quantitation Limit (µg/L) |
|---------------------------|---------------------------|-----------------------------|---------------------------|-------------------------|---------------------------|
| Acetone | <5 | 1,3-Dichloropropane | <1 | Benzene | <1 |
| 2,2-Dichloropropane | <1 | Bromobenzene | <1 | 1,2-Dichloropropane | <1 |
| Bromodichloromethane | <1 | trans-1,3-Dichloropropene | <1 | Bromoform | <1 |
| cis-1,3-Dichloropropene | <1 | Bromomethane | <1 | 1,1-Dichloropropene | <1 |
| 2-Butanone | <5 | Ethylbenzene | <1 | tert-Butylbenzene | <1 |
| Hexachlorobutadiene | <1 | sec-Butylbenzene | <1 | 2-Hexanone | <5 |
| n-Butylbenzene | <1 | Isopropylbenzene | <1 | Carbon Disulfide | <1 |
| p-Isopropyltoluene | <1 | Carbon Tetrachloride | <1 | 4-Methyl-2-pentanone | <5 |
| Chloromethane | <1 | Methylene Chloride | <2 | Chloroethane | <1 |
| 1,1,2,2-Tetrachloroethane | <1 | Chloroform | <1 | n-Propylbenzene | <1 |
| Dibromochloromethane | <1 | Styrene | <1 | 2 & 4 Chlorotoluene | <1 |
| 1,2,3-Trichloropropane | <1 | 1,2-Dibromo-3-chloropropane | <1 | Tetrachloroethene | <1 |
| 1,4-Dichlorobenzene | <1 | Toluene | <1 | 1,2-Dibromoethane (EDB) | <1 |
| 1,1,1-Trichloroethane | <1 | Dibromomethane | <1 | 1,2,4-Trichlorobenzene | <1 |
| Dichlorodifluoromethane | <1 | 1,1,2-Trichloroethane | <1 | 1,3-Dichlorobenzene | <1 |
| 1,2,3-Trichloropropane | <1 | 1,2-Dichlorobenzene | <1 | Trichloroethene | <1 |
| trans-1,2-Dichloroethene | <1 | Trichlorofluoromethane | <1 | 1,2-Dichloroethene | <1 |
| Vinyl Acetate | <5 | 1,1-Dichloroethane | <1 | Bromochloromethane | <1 |
| Xylenes (total) | <1 | 1,3,5-Trimethylbenzene | <1 | | |
| Vinyl Chloride | <1 | 1,1-Dichloroethene | <1 | | |
| | | 1,2,4-Trimethylbenzene | <1 | | |
| | | cis-1,2-Dichloroethene | <1 | | |

In addition to the above analytes in Group 3, 40 mL and 60 mL vials are certified for:

| Analyte | Quantitation Limit (µg/L) |
|----------------------|---------------------------|
| Total Organic Carbon | <600 |

Please keep this certificate for your records and to facilitate any necessary correspondence. If additional information is required, contact our Technical Service Department at (800) 550-4964. Thermo Scientific Environmental Sample Containers are processed in our ISO 9001 manufacturing facilities in the US. All of our processes from design to development to manufacturing or exceed the requirements for quality as set forth by the International Standards Organization.

Robby Ryans
QA Department
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