Thermo SCIENTIFIC

PRODUCT CERTIFICATE

Item Description: 125mL NM HDPE Cylinder

Production Number: 00076841 **Item Number: 313-0125** **Group 1 is applicable**

This is your Certificate for Ther mo 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 est ablished 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-Trichloropropan e	<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	Trichlorofluorometh ane	<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 manufac[illegible] or exceed the requirements for quality as set forth by the International Standards Organization.

Robby Ryans
QA Department
90037CF

THIRD PARTY Thermo Scientific I-Chem CERTIFIED AUDITED™

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