



## CERTIFICATE OF ANALYSIS

This "Certificate of Analysis" represents a precleaned product that has been prepared in accordance with Performance-Based specifications. This product meets or exceeds analyte specifications established in the U. S. EPA OSWER Directive 9240.0-05A "Specification and Guidance for Contaminant-free Sample Containers" for use in Superfund and other Hazardous waste programs.

### Group 3 Volatile Organic Compounds (VOCs)

Analyte	RL ug/L	Analyte	RL ug/L	Analyte	RL ug/L
Acetone	5.0 U	trans-1,2-Dichloroethylene	0.50 U	n-Propylbenzene	0.50 U
Benzene	0.50 U	1,2-Dichloropropane	0.50 U	Styrene	0.50 U
Bromobenzene	0.50 U	1,3-Dichloropropane	0.50 U	Tert-Amyl Alcohol	50 U
Bromochloromethane	0.50 U	2,2-Dichloropropane	0.50 U	Tert-Amyl Methyl Ether	1.0 U
Bromodichloromethane	0.50 U	1,1-Dichloropropene	0.50 U	Tert-Butyl Alcohol	50 U
Bromoform	0.50 U	cis-1,3-Dichloropropene	0.50 U	1,1,1,2-Tetrachloroethane	0.50 U
n-Butylbenzene	0.50 U	trans-1,3-Dichloropropene	0.50 U	1,1,2,2-Tetrachloroethane	0.50 U
sec-Butylbenzene	0.50 U	Di-Isopropyl Ether	0.50 U	Tetrachloroethylene	0.50 U
tert-Butylbenzene	0.50 U	Ethyl Acetate	0.50 U	Toluene	0.50 U
Carbon Disulfide	0.50 U	Ethyl Alcohol	50 U	1,2,3-Trichlorobenzene	0.50 U
Carbon Tetrachloride	0.50 U	Ethylbenzene	0.50 U	1,2,4-Trichlorobenzene	0.50 U
Chlorobenzene	0.50 U	Ethyl Tert-Butyl Ether	0.50 U	1,1,1-Trichloroethane	0.50 U
Chloroethane	0.50 U	2-Hexanone	1.0 U	1,1,2-Trichloroethane	0.50 U
Chloroform	0.50 U	Hexachlorobutadiene	0.50 U	Trichloroethylene	0.50 U
2-Chlorotoluene (ortho)	0.50 U	Isopropyl Alcohol	5.0 U	Trichlorofluoromethane	0.50 U
4-Chlorotoluene (para)	0.50 U	Isopropylbenzene	0.50 U	1,2,3-Trichloropropane	0.50 U
Dibromochloromethane	0.50 U	p-Isopropyltoluene	0.50 U	1,2,4-Trimethylbenzene	0.50 U
1,2-Dibromo-3-chloropropane	0.50 U	Methyl Acetate	0.50 U	1,3,5-Trimethylbenzene	0.50 U
1,2-Dibromoethane	0.50 U	Methyl Bromide	0.50 U	Vinyl Acetate	0.50 U
Dichlorodifluoromethane	0.50 U	Methyl Chloride	0.50 U	Vinyl Chloride	0.50 U
1,3-Dichlorobenzene (meta)	0.50 U	Methylene Bromide	0.50 U	m,p-Xylene	1.0 U
1,2-Dichlorobenzene (ortho)	0.50 U	Methylene Chloride	0.50 U	o-Xylene	0.50 U
1,4-Dichlorobenzene (para)	0.50 U	Methyl Ethyl Ketone	5.0 U	Xylene (total)	0.50 U
1,1-Dichloroethane	0.50 U	4-Methyl-2-pentanone	0.50 U	GRO (8015 C6-C10)	100 U
1,2-Dichloroethane	0.50 U	Methyl Tert Butyl Ether	0.50 U	TOC	1.0 U mg/L
1,1-Dichloroethylene	0.50 U	Naphthalene	0.50 U		
cis-1,2-Dichloroethylene	0.50 U				

**NOTES:**

- RL = Reporting Limit.
- U = The analyte was analyzed for but not detected above the Reporting Limit.
- Bottles are Type III Soda Lime and vials are Type I Borosilicate.
- Vial Storage: Store at 85F or 29.4C. Keep away from organic vapors.
- Solid-top caps feature fluoropolymer resin liners. Open-top caps feature ultrasonically bonded 3.1mm (1/8") fluoropolymer resin/silicone septa.

This "Certificate of Analysis" is provided for your records and is used to facilitate any required correspondences as needed.

This case is preserved. These containers are barcoded.

Each container contains: 0.2 mL 1:1 Hydrochloric Acid

**Level: Quality Assured (QA) (X)**

Glassware / Plasticware received full Quality Assurance and Quality Control treatment. Containers, liners, and closures as applicable, are cleaned according to EPA recommended procedures and validated through a third party (NELAP) testing Laboratory. Each case of containers is custody sealed and labeled for traceability by Lot Number.

Part Number: QLAV89080047

Lot Number: 120825-3BMW

VWR Part No.: 71001-668

Date Product Prepared: 12/17/2025

Item Description: 40mL Amber Borosilicate Vial

Chemical Lot Number: 24020229

Protocol: B

Level: QA

Chemical Expiry Date: 03/30/28

Group: 3 (applies)

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 Chief Executive Officer  
 Manufactured for VWR International



## CERTIFICATE OF ANALYSIS

### 1:1 Hydrochloric Acid

This "Certificate of Analysis" represents a chemical preservative that has been prepared in accordance with Performance-Based specifications. This product meets or exceeds analyte specifications established in the U. S. EPA OSWER Directive 9240.0-05A "Specification and Guidance for Contaminant-free Sample Containers" for use in Superfund and other Hazardous waste programs.

The Hydrochloric Acid used in preservation procedures is tested by a 3rd Party NELAC Laboratory prior to use for determination of potential contaminants based on the list below.

### Group 3 Volatile Organic Compounds (VOCs)

<u>Analyte</u>	<u>RL ug/L</u>	<u>Analyte</u>	<u>RL ug/L</u>	<u>Analyte</u>	<u>RL ug/L</u>
Acetone	5.0 U	trans-1,2-Dichloroethylene	0.50 U	n-Propylbenzene	0.50 U
Benzene	0.50 U	1,2-Dichloropropane	0.50 U	Styrene	0.50 U
Bromobenzene	0.50 U	1,3-Dichloropropane	0.50 U	Tert-Amyl Alcohol	50 U
Bromochloromethane	0.50 U	2,2-Dichloropropane	0.50 U	Tert-Amyl Methyl Ether	0.50 U
Bromodichloromethane	0.50 U	1,1-Dichloropropene	0.50 U	Tert-Butyl Alcohol	50 U
Bromoform	0.50 U	cis-1,3-Dichloropropene	0.50 U	1,1,1,2-Tetrachloroethane	0.50 U
n-Butylbenzene	0.50 U	trans-1,3-Dichloropropene	0.50 U	1,1,2,2-Tetrachloroethane	0.50 U
sec-Butylbenzene	0.50 U	Di-Isopropyl Ether	0.50 U	Tetrachloroethylene	0.50 U
tert-Butylbenzene	0.50 U	3,3-Dimethyl-1-butanol	5.0 U	Toluene	0.50 U
Carbon Disulfide	0.50 U	Ethyl Acetate	0.50 U	1,2,3-Trichlorobenzene	0.50 U
Carbon Tetrachloride	0.50 U	Ethyl Alcohol	50 U	1,2,4-Trichlorobenzene	0.50 U
Chlorobenzene	0.50 U	Ethylbenzene	0.50 U	1,1,1-Trichloroethane	0.50 U
Chloroethane	0.50 U	Ethyl Tert-Butyl Ether	0.50 U	1,1,2-Trichloroethane	0.50 U
Chloroform	0.50 U	2-Hexanone	0.50 U	Trichloroethylene	0.50 U
2-Chlorotoluene (ortho)	0.50 U	Hexachlorobutadiene	0.50 U	Trichlorofluoromethane	0.50 U
4-Chlorotoluene (para)	0.50 U	Isopropyl Alcohol	5.0 U	1,2,3-Trichloropropane	0.50 U
Dibromochloromethane	0.50 U	Isopropylbenzene	0.50 U	1,2,4-Trimethylbenzene	0.50 U
1,2-Dibromo-3-chloropropane	0.50 U	p-Isopropyltoluene	0.50 U	1,3,5-Trimethylbenzene	0.50 U
1,2-Dibromoethane	0.50 U	Methyl Acetate	0.50 U	Vinyl Acetate	0.50 U
Dichlorodifluoromethane	0.50 U	Methyl Bromide	0.50 U	Vinyl Chloride	0.50 U
1,3-Dichlorobenzene (meta)	0.50 U	Methyl Chloride	0.50 U	m,p-Xylene	0.50 U
1,2-Dichlorobenzene (ortho)	0.50 U	Methylene Bromide	0.50 U	o-Xylene	0.50 U
1,4-Dichlorobenzene (para)	0.50 U	Methylene Chloride	0.50 U	Xylene (total)	0.50 U
1,1-Dichloroethane	0.50 U	Methyl Ethyl Ketone	2.5 U	GRO (8015 C6-C10)	0.05 mg/L
1,2-Dichloroethane	0.50 U	4-Methyl-2-pentanone	0.50 U	Oil & Grease	5.0 U mg/L
1,1-Dichloroethylene	0.50 U	Methyl Tert Butyl Ether	0.50 U	Total Organic Carbon	1.0 U mg/L
cis-1,2-Dichloroethylene	0.50 U	Naphthalene	0.50 U		

**NOTES:**

- Reporting Limit (RL) = The lowest concentration standard analyzed which can be verified.
- U = The analyte was analyzed for but not detected above the Reporting Limit.
- U\* = No analytes were detected; No Reporting Limits for these analytes.
- Solid-top caps feature fluoropolymer resin liners. Open-top caps feature ultrasonically bonded 3.1mm (1/8") fluoropolymer resin/silicone septa.

The chemical added to this product may become altered depending upon storage conditions and elapsed time from the prepared date.

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Item Description: 1:1 Hydrochloric Acid (Metals Grade)

Lot Number: 24020229

Date Product Prepared: 12/17/25

Chemical Expiry Date: 03/30/2028



Chief Executive Officer  
Manufactured for VWR International