

# Certificate of Analysis

## Bromine Number Titration Solvent, Dichloromethane Formulation

**Lot Number:** 1311G83

**Product Number:** 1191

**Manufacture Date:** NOV 22, 2023

**Expiration Date:** NOV 2025

Dichloromethane must be used in place of 1,1,1-Trichloroethane for all operations of this ASTM procedure (i.e., for the dilution of samples and as the titration blank) when this reformulated Titration Solvent is used.

Name	CAS#	Grade
Acetic Acid	64-19-7	ACS
Methylene Chloride	75-09-2	ACS
Methyl Alcohol	67-56-1	ACS
Water	7732-18-5	ACS/ASTM/USP/EP
Sulfuric Acid	7664-93-9	ACS

Test	Specification	Result
Appearance	Colorless liquid	Passed

Specification	Reference
Test Method for Bromine Numbers of Petroleum Distillates and Commercial Aliphatic Olefins by Electrometric Titration	ASTM (D 1159)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1191-1	4 L safety-coated glass	24 months
1191-32	1 L amber glass	24 months

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)



Heidi J Green (11/22/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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