

# Certificate of Analysis

**Ethanol, Grain derived, 190 Proof**
**Lot Number:** 6209001

**Product Number:** RSOE0010

**Manufacture Date:** OCT 07, 2022  
**Recommended Retest Date:** SEP 2025

Name	CAS#	Grade
Ethyl Alcohol	64-17-5	USP
Water	7732-18-5	USP

Test	Specification	Result	NIST SRM#
Acidity (as Acetic Acid)	max 0.003	< 0.003 %	
Alkalinity (as NH <sub>3</sub> )	max 3	< 3 mg/Kg	
Assay	min 94.9 % (v/v)	95.0 % (v/v)	
Fusel Oil	To Pass Test	Passed	
IR Identification	To Pass Test	Passed	
Ketones/Isopropanol	To Pass Test	Passed	
Lead (Pb)	max 0.50 mg/Kg	< 0.50 mg/Kg	3128
Methanol	< 200	2 ppm	
Nonvolatile Residue	max 0.003 %	0 %	
Organic Impurities (Other)	< 1000	2 ppm	
Organic Impurities (Sum)	< 5000	0 ppm	
Solubility in Water	To Pass Test	Passed	
Specific Gravity @ 15.56°C	max 0.8161	0.8158	
Specific Gravity @ 25.0°C	max 0.8096	0.8092	
Substances Darkened by Sulfuric Acid	To Pass Test	Passed	
Substances Reducing Permanganate	To Pass Test	Passed	

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)
RSOE0010-55E	55 gal poly drum	36 months

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



Myrlande Gilles (10/07/2022)

Quality Control

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

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.