Rocky Mountain Reagents

SCIENTIFIC SOLUTIONS SINCE 1951

CERTIFICATE OF ANALYSIS

Product: **Ethyl Alcohol, 200 Proof, USP / FCC**
Catalog Number: **E1032**
Lot Number: **CB-21960**
Manufacture Date: **09/21/26**
Expiration Date: **09/21/29**
CAS #: **64-17-5**
Chemical Formula: **C_2H_5OH**
Formula Weight: **46.07**

Test	Result	Specifications	Method
Water (wt%)	**0.01**	Less Than or Equal To 0.1%	ASTM E-1064
Proof	**199.9**	Greater Than or Equal To 199.8	ASTM D-4052
Specific Gravity 60°F	**0.7939**	Less Than or Equal To .7949	ASTM D-4052
% Ethanol by weight	**99.96**	Greater Than or Equal To 99.8	ASTM D-4052
Clarity of Solution*	**Pass**	Pass	USP
Color, Pt-Co*	**3**	Less Than or Equal To 5	Visual
Appearance	**Clear**	Clear	Visual
Color of Solution*	**Pass**	Pass	USP
Odor	**Clean; neutral**	Clean; neutral	Organoleptic
Nonvolatile Matter, g/100mL *	**0.0012**	Less Than or Equal To 0.0025	USP
Acidity	**0.0015**	Less Than or Equal To 0.0025	ASTM D-1613
Ultraviolet Absorbance	**0.205**	NMT 0.4 at 240nm	USP
	0.069	NMT 0.3 between 250 and 260 nm	USP
	0	NMT 0.1 between 270 and 340 nm	USP
Acetaldehyde	**0**	Less Than or Equal To 2 ppm	GC-FID
Methanol ppm	**0**	Less Than or Equal To 1 ppm	GC-FID
Esters (as Ethyl Acetate)	**0**	Less Than or Equal To 1 ppm	GC-FID
Propanols ppm	**1**	Less Than or Equal To 1 ppm	GC-FID
Benzene	**0**	Non-Detect	GC-FID
Sum of all other impurities	**0**	Less Than or Equal To 5 ppm	GC-FID
Permanganate Time, min.*	**≥ 30 minutes**	Greater Than or Equal To 30 minutes	USP

Meets current USP requirements and current FCC requirements. Kosher certified.
Manufactured by: Golden Triangle Energy, LLC

4621 Technology Drive Golden, CO 80403
(303)762-0800 | f: (303)762-1240 | www.rmreagents.com | info@rmreagents.com

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It is certified on 10/20/26 that the above is a true copy of the actual lot analysis.

Grant Christen
Quality Systems and Regulatory Affairs
Rocky Mountain Reagents, Inc.

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