



## CERTIFICATE OF ANALYSIS

Product Name	Methanol
Grade	ACS/USP/NF Grade
Catalog #	339000000
Item #	101156
Batch #	211008-B003102
Date of Manufacture:	10/07/2021
Recommended Retest Date:	10/06/2026
Customer PO #	284512
Packaging Type	Case Glass 4x4 L
Quantity for Delivery	54
Packaged by	Greenfield Global USA Inc, 1101 Isaac Shelby Drive, Shelbyville, KY 40065

TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Carbonyl Compounds - Acetaldehyde	ACS	0.001% max	LT 0.001%	N/A
Carbonyl Compounds - Acetone	ACS	0.001% max	None Detected	N/A
Appearance	ACS	To Pass Test	Pass	N/A
Assay (corrected for water)	ACS	99.8% min	99.95	%
Color (APHA)	ACS	10 max	0	N/A
Carbonyl Compounds - Formaldehyde	ACS	0.001% max	LT 0.001%	N/A
Residue on Evaporation	ACS	0.001% max	0.000	%
Solubility in Water	ACS	To Pass Test	Pass	N/A
Substances Darkened by Sulfuric Acid	ACS	To Pass Test	Pass	N/A
Substances Reducing Permanganate	ACS	To Pass Test	Pass	N/A
Titration Acid	ACS	0.0003 meq/g max.	0.0002	meq/g
Titration Base	ACS	0.0002 meq/g max.	0.0001	meq/g
Water	ACS	NMT 0.1%	0.03	%



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TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Acetone and Aldehydes (as Acetone)	NF	NMT 0.003%	LT 0.003%	N/A
Acidity	NF	NMT 0.45mL 0.020N NaOH required	0.20	ml
Alkalinity (as NH4)	NF	NMT 0.20mL 0.020N H2SO4 required (3 ppm max)	0.10	ml
Assay	NF	NLT 99.5%	99.98	%
Identification A (Infrared Absorption)	NF	To Pass Test	Pass	N/A
Identification B (GC Analysis)	NF	To Pass Test	Pass	N/A
Non -Volatile Residue	NF	NMT 2mg (0.001% w/w)	0	mg
Readily Carbonizable Substances	NF	To Pass Test	Pass	N/A
Readily Oxidizable Substances	NF	To Pass Test	Pass	N/A
Water	NF	NMT 0.1%	0.03	%

#### Certification and Compliance Statements

This lot of Methanol complies with all of the current requirements listed in the United States Pharmacopeia, National Formulary and American Chemical Society monographs

No chemicals whatsoever are used as solvents at any point in the manufacture, processing or packaging of Methanol. Only Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in Methanol. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467>.

This product is for further commercial manufacturing, laboratory or research use, and may be used as a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.



## CERTIFICATE OF ANALYSIS

**This document was electronically signed by Natalie Engelbrecht on 10/14/2021 8:04:07 AM to indicate Quality Assurance Approval and Release this document.**