

CERTIFICATE OF ANALYSIS

Product Name	Methanol
Grade	ACS/USP/NF Grade
Avantik Part #	RS4039
Batch #	231201-B072509
Date of Manufacture:	11/15/2023
Recommended Retest Date:	11/15/2028
Customer PO #	PO110858
Packaging Type	Case Poly 4x1 Gal

TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Assay (corrected for water)	ACS	99.8% min	99.94	%
Assay	NF	NLT 99.5%	99.99	%
Identification A (Infrared Absorption)	NF	To Pass Test	Pass	N/A
Identification B (GC Analysis)	NF	To Pass Test	Pass	N/A
Acidity	NF	NMT 0.45mL 0.020N NaOH required	0.20	ml
Titration Acid	ACS	0.0003 meq/g max.	0.0002	meq/g
Alkalinity (as NH ₄)	NF	NMT 0.20mL 0.020N H ₂ SO ₄ required (3 ppm max)	0.05	ml
Titration Base	ACS	0.0002 meq/g max.	0.0001	meq/g
Readily Carbonizable Substances	NF	To Pass Test	Pass	N/A
Carbonyl Compounds - Acetone	ACS	0.001% max	LT 0.001%	N/A
Acetone and Aldehydes (as Acetone)	NF	NMT 0.003%	LT 0.003%	N/A
Carbonyl Compounds - Formaldehyde	ACS	0.001% max	LT 0.001%	N/A
Carbonyl Compounds - Acetaldehyde	ACS	0.001% max	LT 0.001%	N/A
Readily Oxidizable Substances	NF	To Pass Test	Pass	N/A
Non -Volatile Residue	NF	NMT 2mg (0.001% w/w)	0	mg

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TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Residue on Evaporation	ACS	0.001% max	0.000	%
Appearance	ACS	To Pass Test	Pass	N/A
Color (APHA)	ACS	10 max	1	N/A
Substances Darkened by Sulfuric Acid	ACS	To Pass Test	Pass	N/A
Substances Reducing Permanganate	ACS	To Pass Test	Pass	N/A
Water	NF	NMT 0.1%	0.05	%
Water	ACS	NMT 0.1%	0.05	%
Solubility in Water	ACS	To Pass Test	Pass	N/A

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.

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

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. 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 document was electronically signed by Alice Storm on 11/20/2023 12:19:20 PM to indicate Quality Assurance Approval and to release this batch.