

CERTIFICATE OF ANALYSIS

Product Name METHANOL
Grade Meets GENERAL USE HPLC-UV/ACS/USP/NF Grade Monographs
Catalog # 33900HPLC
Lot # C21C26006
Date of Manufacture: 03/26/21
Recommended Retest Date: Five Years from Date of Manufacture

TEST	MONO GRAPH	SPECIFICATION	RESULT
Assay (corrected for water)	ACS	99.8% min	99.99%
Assay	NF	NLT 99.5%	100.00%
Appearance	ACS+	To Pass Test	Pass
Identification A (Infrared Absorption)	NF	To Pass Test	Pass
Identification B (GC Analysis)	NF	To Pass Test	Pass
Acidity	NF ⁺	NMT 0.45mL 0.020N NaOH required	0.10 mL
Alkalinity (as NH ₄)	NF ⁺	NMT 0.20mL 0.020N H ₂ SO ₄ required (3 ppm max)	0.10 mL
Titration Acid	ACS ⁺	0.0003 meq/g max.	0.0002 meq/g
Titration Base	ACS ⁺	0.0002 meq/g max.	0.0001 meq/g
Readily Carbonizable Substances	NF ⁺	To Pass Test	Pass
Carbonyl Compounds	ACS	Acetone 0.001% max Formaldehyde 0.001% max Acetaldehyde 0.001% max	< 0.001% < 0.001% < 0.001%
Acetone and Aldehydes (as Acetone)	NF ⁺	NMT 0.003%	< 0.003%
Readily Oxidizable Substances	NF ⁺	To Pass Test	Pass
Non -Volatile Residue	NF ⁺	NMT 2mg (0.001% w/w)	0 mg
Residue on Evaporation	ACS ⁺	0.001% max	0.000%
Ultraviolet absorption	ACS	205nm 1.00 max.	0.88
		210nm 0.80 max.	0.48
		220nm 0.40 max.	0.22
		230nm 0.20 max.	0.10
		240nm 0.10 max.	0.04
		260nm 0.04 max.	0.01
		280nm-400 nm 0.01 max.	0.00
Substances Reducing Permanganate	ACS ⁺	To Pass Test	Pass
Substances Darkened by Sulfuric Acid	ACS ⁺	To Pass Test	Pass

**CERTIFICATE OF ANALYSIS
WATER**

LC Mass Spec Grade

Lot # K21C26CAS0000WTR

Date of Manufacture: April 13, 2021

Recommended Retest Date: Two Years from Date of Manufacture

Main Catalog #: ZH23200LCMS

TEST	SPECIFICATIONS	RESULTS
Residue after Evaporation	Max 1 mg/L	< 0.1 mg/L
Ultraviolet Absorbance Test	Passes Test	Passes
Refractive Index at 20°C	Between 1.3325-1.3335	1.3330
LC gradient elution suitability at 254 nm	Passes Test	Passes
Fluorescence at emission maximum for Impurities (as Quinine sulfate)	Max 0.3 ppb	< 0.3 ppb
LC-MS Positive mode (as Reserpine)	Max 50 ppb	< 50 ppb
LC-MS Negative mode (as Nitrophenol)	Max 50 ppb	< 50 ppb
Trace Metals	Passes Test	Passes

Form: Water, LC/MS. Rev 1.3, 6/16, KAD

This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or 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.

Approved



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