



## CERTIFICATE OF ANALYSIS

CP-A9652

Product Name: Isopropyl Alcohol 99%  
 Grade: ACS / USP / NF  
 Lot#: 240806-B098517  
 Manufactured: Jul/30/2024  
 Retest Date: Jul/29/2029

Test	Monograph	Specification	Result	Units
Carbonyl Compounds - Acetone	ACS	0.002% max	<0.001	%
Assay (corrected for water)	ACS	99.5% min	99.94	%
Color, APHA	ACS	10 max	1	N/A
Carbonyl Compounds - Propionaldehyde	ACS	0.002% max	<0.002	%
Residue after Evaporation	ACS	0.001% max	0.000	%
Solubility in water	ACS	To Pass Test	Pass	N/A
Titrateable Acid or Base	ACS	0.0001 meq/g	0.0001	meq/g
Water, wt%	ACS	NMT 0.2%	0.01	%
Volatile Impurities – 2-Butanol	USP	NMT 0.1%	<0.1	%
Volatile Impurities - Acetone	USP	NMT 0.1%	<0.1	%
Acidity	USP	NMT 0.70 mL of 0.02N NaOH	0.40	mL
Assay	USP	NLT 99.0%	99.92	%
Volatile Impurities – Diethyl Ether	USP	NMT 0.1%	<0.1	%
Volatile Impurities – Diisopropyl Ether	USP	NMT 0.1%	<0.1	%
Identification B	USP	To Pass Test	Pass	N/A
Identification A – IR spect.	USP	To Pass Test	Pass	N/A
Identification C - Methanol	USP	NMT 0.02%	Pass	N/A
Limit of Volatile Impurities- Individual unspecified	USP	NMT 0.1%	< 0.1%	N/A
Limit of Volatile Impurities – Methanol	USP	NMT 0.02%	< 0.02%	N/A
Volatile Impurities – n-Propanol	USP	NMT 0.1%	<0.1	%
Limit of Nonvolatile Residue	USP	NMT 2.5mg (0.005%)	0.0	mg
Refractive Index @ 20°C	USP	1.376 – 1.378	1.377	N/A
Specific Gravity @ 25°C	USP	0.783 – 0.787	0.783	N/A
Volatile Impurities - Total	USP	NMT 1.0%	< 0.1	%
Water Determination	ACS	NMT 0.2%	0.03	%
Carbonyl Compounds - Acetone	ACS	NMT 0.002%	0.000	%
Test	Monograph	Specification	Result	Units
Water Determination	USP	NMT 0.5%	0.03	%

Limit Volatile Impurities - Total	USP	NMT 1.0%	LT 0.1	%
Limit Volatile – Diethyl Ether	USP	NMT 0.1%	LT 0.1	%
Limit Volatile – Acetone	USP	NMT 0.1%	LT 0.1	%
Limit Volatile – Diisopropyl Ether	USP	NMT 0.1%	LT 0.1	%
Limit Volatile – 2-Butanol	USP	NMT 0.1%	LT 0.1	%
Limit Volatile – n-Propanol	USP	NMT 0.1%	LT 0.1	%
Absorbance @230nm	USP	NMT 0.30	0.10	N/A
Absorbance @250nm	USP	NMT 0.10	0.02	N/A
Absorbance @270nm	USP	NMT 0.03	0.00	N/A
Absorbance @290nm	USP	NMT 0.02	0.00	N/A
Absorbance @310nm	USP	NMT 0.01	0.00	N/A
Absorbance curve	USP	Spectrum shows a steadily descending curve with no observable peaks or shoulders	Pass	N/A

NMT= Not more than; LT = <, Less than ; NLT= Not Less Than

This is a copy of the original certificate of analysis.