



## CERTIFICATE OF ANALYSIS

CP-D9091P

Product Name: Isopropyl Alcohol 99%

Grade: ACS / USP / NF

Lot#: D069194CP

Manufactured: 10/10/2023

Retest Date: 10/08/2028

CAS# 67-63-0

Formula: (CH<sub>3</sub>)<sub>2</sub>CHOH

FW: 60.10 g/mol

MDL: MFCD00011674

EC: 200-661-7

Test	Monograph	Specification	Result	Units
Carbonyl Compounds - Acetone	ACS	0.002% max	0.002	%
Assay (corrected for water)	ACS	99.5% min	99.95	%
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	0.30	mL
Assay	USP	NLT 99.0%	99.93	%
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	USP	NMT 0.5%	0.03	%
Carbonyl Compounds - Acetone	ACS	NMT 0.002%	0.000	%

Test	Monograph	Specification	Result	Units
Limit Volatile Impurities – Diethyl ether	USP	NMT 0.1%	LT 0.1%	N/A
Limit of Volatile Impurities – Acetone	USP	NMT 0.1%	LT 0.1%	N/A
Limit of Volatile Impurities - Diisopropyl Ether	USP	NMT 0.1%	LT 0.1%	N/A
Limit of Volatile Impurities- n-Propyl Alcohol	USP	NMT 0.1%	LT 0.1%	N/A
Limit of Volatile Impurities – 2-Butanol	USP	NMT 0.1%	LT 0.1%	N/A
Water Determination	USP	NMT 0.5%	0.01	%
Water Determination	ACS	NMT 0.2%	0.01	%
Limit Volatile Impurities - Total	USP	NMT 1.0%	LT 0.1	%

NMT= Not more than; LT = <, Less than ; NLT= Not Less Than  
This is a copy of the original certificate of analysis.