

**PRODUCT SPECIFICATION SHEET**
**Isopropyl Alcohol, 99%**

Meets USP/EP/BP/JP Monographs

Harmonized

Catalog # 231USP/EP

TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT
Assay by GC, corrected for water	USP	99.0% min	99.98%
Assay by GC, corrected for water	Pharmco	99.5% min	
Appearance- Clarity and Color Appearance	EP/BP JP	Clear, colorless liquid	Pass
Solubility	EP/BP JP	Miscible with water and alcohol Miscible with water, ethanol, methanol, diethyl ether	Pass Pass
Color, Pt-Co		10 max	5
Purity 1- Clarity of Solution	JP	Solution is clear	Pass
Nonvolatile Substances Purity 3- Residue on Evaporation Limit of Nonvolatile Residue Nonvolatile Residue	EP/BP JP USP Pharmco	NMT 20 ppm NMT 1.0 mg/20mL NMT 2.5 mg (0.005%) NMT 0.001%	<0.001%
Specific Gravity	USP JP	0.783 - 0.787 @ 25°C 0.785-0.788 @20C	0.783 0.786
Identification A-Relative Density @ 20°C	EP/BP	0.785 - 0.789 g	0.785
Weight per mL @ 20°C	Pharmco	0.784 - 0.786 g	0.7851
Water, wt % Water wt/v% Water, wt % Water Determination	EP/BP JP Pharmco USP	NMT 0.5% NMT 0.75% NMT 0.2% NMT 0.5%	0.02%
Limit of Volatile Impurities	USP	Diethyl Ether NMT 0.1% Acetone NMT 0.1% Diisopropyl Ether NMT 0.1% n-Propyl Alcohol NMT 0.1% 2-Butanol NMT 0.1% Total NMT 1.0%	<0.1% <0.1% <0.1% <0.1% <0.1% <1.0%
Identification A – Infrared Absorption	USP	To Pass Test	Pass
Identification C - Infrared Absorption	EP/BP	Compares to standard	Pass
Identification B	USP	To Pass Test	Pass
Identification Test 1	JP	Light yellow precipitate is formed	Pass
Identification Test 2		Filter paper turns red-brown color	Pass
Identification D	EP/BP	The entire sulfuric acid layer turns violet	Pass
Identification B - Refractive Index @ 20°C	EP/BP	1.376 - 1.379	1.377
Refractive Index @ 20°C	USP	1.376 - 1.378	
Acidity or Alkalinity	EP/BP	To Pass Test	Pass
Acidity	USP	NMT 0.70ml of 0.020N NaOH is required for neutralization	Pass
Purity 2- Acidity	JP	To pass the test	Pass
Benzene and related substances	EP/BP	NMT 2ppm	Pass
Benzene (by GC) Total of Impurities (by GC)		NMT 0.3 %	Pass
Peroxides Test	EP/BP	No color develops	Pass
Distilling Range 81 – 83C	JP	More than 94% (vol)	Pass
Absorbance	EP/BP	Measured between 230 nm and 310 nm 230nm 0.30max. 250nm 0.10max 270nm 0.03max 290nm 0.02max 310nm 0.01max The spectrum shows a steadily descending curve with no observable peaks or shoulders	0.11 0.02 0.00 0.00 0.00 Pass

Form: Isopropanol 99%-USP/ EP/BP/JP Harmonized, Rev. 2.7, 06/16, 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.