PHARMCO by Greenfield Global

PRODUCT SPECIFICATIONS SHEET

Product Name	Isopropyl Alcohol 99%
Grade	ACS/USP/NF Grade
Catalog #	231000099, zp231000099

TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT
Assay	USP	NLT 99.0%	99.94 %
Assay (corrected for water)	ACS	99.5% min	99.94 %
Solubility in water	ACS	To Pass Test	Pass
Color, APHA	ACS	10 max	1
Limit of Nonvolatile Residue	USP	NMT 2.5 mg (0.005%)	0.0 mg
Residue after Evaporation	ACS	0.001% max	0.000 %
Specific Gravity	USP	0.783 - 0.787 @25°C	0.783
Identification A - Infrared Spectroscopy	USP	To Pass Test	Pass
Identification B	USP	To Pass Test	Pass
Identification C - Limit of Methanol	USP	NMT 0.02%	Pass
Refractive Index @ 20°C	USP	1.376-1.378	1.377
Acidity	USP	NMT 0.70 ml of 0.020N NaOH is required	0.50 ml
Titrable Acid or Base	ACS	0.0001 meq/g max	0.0001 meq/g
Carbonyl Compounds - Propionaldehyde	ACS	0.002% max	LT 0.002%
Carbonyl Compounds - Acetone	ACS	0.002% max	0.000 %
Absorbance @ 230nm	USP	NMT 0.30	0.09
Absorbance @ 250nm	USP	NMT 0.10	0.02
Absorbance @ 270nm	USP	NMT 0.03	0.00
Absorbance @ 290nm	USP	NMT 0.02	0.00

PHARMCO by Greenfield Global

PRODUCT SPECIFICATIONS SHEET

TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT
Absorbance @ 310nm	USP	NMT 0.01	0.00
Absorbance Curve	USP	The spectrum shows a steadily descending curve with no observable peaks or shoulders.	Pass
Limit of Volatile Impurities - Methanol	USP	NMT 0.02%	LT 0.02%
Limit of Volatile Impurities - Diethyl Ether	USP	NMT 0.1%	LT 0.1%
Limit of Volatile Impurities - Acetone	USP	NMT 0.1%	None Detected
Limit of Volatile Impurities - Diisopropyl Ether	USP	NMT 0.1%	LT 0.1%
Limit of Volatile Impurities - n-Propyl Alcohol	USP	NMT 0.1%	LT 0.1%
Limit of Volatile Impurities - 2-Butanol	USP	NMT 0.1%	LT 0.1%
Limit of Volatile Impurities - Individual unspecified	USP	NMT 0.1%	LT 0.1%
Limit of Volatile Impurities - Total	USP	NMT 1.0%	LT 0.1%
Water, wt%	ACS	NMT 0.2%	0.04 %
Water Determination	USP	NMT 0.5%	0.04 %

Certification and Compliance Statements

This product complies with all of the current requirements listed in the United States Pharmacopeia, American Chemical Society monographs and the National Formulary.

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 Isopropyl Alcohol. Obly Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in IPA. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467>.

PRODUCT SPECIFICATIONS SHEET

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