Ethyl Alcohol 100% (200 Proof)

Absolute, Dehydrated, Anhydrous

Grain Derived

Grade: USP/EP/BP

Catalog number: 1110000EP200 or ZP1110000EP200

Test	Mono-graph	Specification	Typical Result
Assay (by specific gravity@15.56°C)	USP	NLT 99.5%	99.99 %
Assay (by relative density @20°C)	EP/BP	NLT 99.5%	99.99 %
Assay (by GC, corrected for water)	Internal	NLT 99.9%	99.97 %
Proof	27CFR 30.23	Lot Analysis	200.0
Appearance	EP/BP	Clear and Colorless, the dilution remains clear when compared with water	Pass
Characters / Solubility	EP/BP	Appearance: colourless, clear, volatile, flammable liquid, hygroscopic. Solubility: miscible with water and with methylene chloride. It burns with a blue, smokeless flame. BP: about 78°C	Pass
Clarity of Solution	USP	Sample solution A and Sample solution B show the same clarity as that of water, or their opalescence is not more pronounced than that of the Standard suspension A.	Pass
Color of Solution	USP	The Sample solution has the appearance of water or is not more intensely colored than the Standard solution	Pass
Specific Gravity	USP	NMT 0.7962 @ 15.56°C	0.7937
Identification Test A (Specific Gravity)	USP	It meets the requirements of the test for specific gravity	Pass
Identification A - Relative Density	EP/BP	0.790 - 0.793 @ 20°C	0.7905
Identification Test B (Infrared Spectroscopy)	USP	Conforms to IR Spectra	Pass

Test	Mono-graph	Specification	Typical Result
Identification Test B (Infrared Spectroscopy)	EP/BP	Conforms to IR Spectra	Pass
Identification Test C (Limit of Methanol)	USP	NMT 200 µL/L (200ppm) of Methanol	Pass
Identification Test C	EP/BP	An intense blue color appears on the paper and becomes paler after 10-15 minutes	Pass
Identification Test D	EP/BP	A yellow precipitate is formed within 30 minutes	Pass
Acidity or Alkalinity	USP	The solution is pink (30µg/g, expressed as acetic acid)	Pass
Acidity or Alkalinity	EP/BP	The solution is pink (30ppm, expressed as acetic acid)	Pass
Limit of Nonvolatile Residue	USP	NMT 2.5 mg	0.0 mg
Residue on Evaporation	EP/BP	25 ppm, max	0 ppm
UV Absorbance	USP	NMT 0.40 at 240 nm	0.27
UV Absorbance	EP/BP	maximum 0.40 at 240 nm	0.27
UV Absorbance	USP	NMT 0.30 between 250 and 260 nm	0.11
UV Absorbance	EP/BP	maximum 0.30 between 250 nm and 260 nm	0.11
UV Absorbance	USP	NMT 0.10 between 270 and 340 nm	0.02
UV Absorbance	EP/BP	maximum 0.10 between 270 nm and 340 nm	0.02
UV Absorbance	USP	The spectrum shows a steadily descending curve with no observable peaks or shoulders	Pass
UV Absorbance	EP/BP	The spectrum shows a steadily descending curve with no observable peaks or shoulders	Pass
Organic Impurities - Methanol	USP	NMT 200µL/L	2 µL/L
Volatile Impurities - Methanol	EP/BP	NMT 200 ppm V/V	2 ppm

Test	Mono-graph	Specification	Typical Result
Organic Impurities - Acetaldehyde and Acetal	USP	NMT 10µL/L, expressed as acetaldehyde	0 µL/L
Volatile Impurities - Acetaldehyde and Acetal	EP/BP	10 ppm V/V max. expressed as acetaldehyde	0 ppm
Organic Impurities - Benzene	USP	NMT 2µL/L	0 µL/L
Volatile Impurities - Benzene	EP/BP	2ppm V/V max.	0 ppm
Organic Impurities - Sum of all other impurities	USP	NMT 300µL/L	4 µL/L
Volatile Impurities - Sum of all other impurities	EP/BP	NMT 300 ppm	4 ppm

Certification and Compliance Statements

This product complies with all of the current requirements listed in the United States Pharmacopeia, European Pharmacopeia and British Pharmacopeia Monographs.

Recommended retest period excludes UV Absorbance for pure Ethyl Alcohol unless packaged in glass or UV protected drums (see shelf life statement).

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 ethyl alcohol. Only Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in Ethanol. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467> and ICH Q3C Impurities: Residual Solvents.

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Appropriate/legal use of all products are the responsibility of the user and subject to applicable local laws and regulations.