CERTIFICATE OF ANALYSIS

CP-D9200PTP

Product Name: Reagent Alcohol 200 Proof, ACS Denatured with 2-Propanol
Grade: ACS Denatured with 2-Propanol
Lot#: 221209-B043553
Manufactured: 12/07/2022
Retest Date: 12/06/2025

Test	Monograph	Specification	Result	Units
Appearance	Internal	Clear, Free of Suspended Matter	Pass	N/A
Assay (by GC, water corrected)	ACS	NLT 99.5%	99.99	%
Water (wt %)	ACS	0.2% max	0.01	%
Acetone/Isopropyl alcohol	ACS	To Pass test	Pass	N/A
Color (APHA)	ACS	10 max	1	N/A
Methanol	ACS	0.1% max	Pass	N/A
Residue After Evaporation	ACS	5ppm max.	< 10 ppm	N/A
Solubility in Water	ACS	To Pass test	Pass	N/A
Substances Darkened by Sulfuric acid	ACS	To Pass test	Pass	N/A
Substances Reducing Permanganate	ACS	To Pass test	Pass	N/A
Titratable Acid	ACS	0.0005 meq/g	<0.0002	N/A
Titratable Base	ACS	0.0002 meq/g	< 0.0001	N/A
Proof	27CFR 30.23	Lot analysis	200.0	N/A
Assay Specific Gravity @ 15.56°C	USP	NLT 99.5%	99.98	%
Specific Gravity @ 15.56°C	USP	NMT 0.7962	0.7937	N/A
Acidity or Alkalinity	USP	Solution is pink (30µg/g) as acetic acid	Pass	N/A
Clarity of Solution	USP	Sample A and B show same clarity as water	Pass	N/A
Color of Solution	USP	Sample is not more colored than the std. solution.	Pass	N/A
Id. Test A (sp.gravity)	USP	Meets sp. grav.	Pass	N/A
Id. Test B (IR spect.)	USP	Conforms IR spec.	Pass	N/A
Id. Test C (methanol limit)	USP	NMT 200ppm MeOH	Pass	N/A

Limit nonvolatile residue	USP	NMT 2.5mg	0.3	mg
Org. impurities Acetaldehyde and Acetal	USP	NMT 10µL/L, as acetaldehyde	0	µL/L
Org. impur - Benzene	USP	NMT 2µL/L	0	µL/L
Org. impur - Methanol	USP	NMT 200µL/L	0	µL/L
Org. impur – Total of others	USP	NMT 300µL/L	0	µL/L
UV Absorbance – 240nm	USP	NMT 0.40	0.29	N/A
UV Absorbance (250 -260nm)	USP	NMT 0.30	0.12	N/A
UV Absorbance (270 -340nm)	USP	NMT 0.10	0.02	N/A
UV Absorbance	USP	Spectrum shows a steadily decrease in abs. with no peaks or shoulders	Pass	N/A

This is a copy of the original certificate of analysis.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

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. Appropiate/legal use of this product is the responsibility of the user.

No chemicals whatsoever are used as a 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>.

This lot of Anhydrous Ethyl Alcohol complies with all of the current requirements listed in the US Pharmacopeia and American Chemical Society monographs.

Recommended retest period excluded UV Absorbance for pure Ethyl Alcohol unless packaged in glass or UV protected drums.