



## PRODUCT SPECIFICATIONS SHEET

Product Name Ethyl Alcohol 100% (200 Proof) Grain  
 Grade ACS/USP/UV Grade  
 Catalog # 111HPLC200

TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT	UNITS
Assay (by GC, corrected for water)	ACS	NLT 99.5%	99.98	%
Water (wt%)	ACS	0.2%, max	0.02	%
Ultraviolet Absorbance @ 220 nm	Internal	0.30 max	0.24	AU
Ultraviolet Absorbance @ 230 nm	Internal	0.18 max	0.12	AU
Ultraviolet Absorbance @ 240 nm	Internal	0.08 max	0.05	AU
Ultraviolet Absorbance @ 270-400 nm	Internal	0.01 max	0.00	AU
Proof	27CFR 30.23	Lot Analysis	200.0	N/A
Assay (by specific gravity@15.56°C)	USP	NLT 99.5%	99.99	%
Specific Gravity	USP	NMT 0.7962 @ 15.56°C	0.7937	N/A
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	0.001% , max	0.000	%
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
Titration Acid	ACS	0.0005 meq/g max.	0.0001	meq/g
Titration Base	ACS	0.0002 meq/g max.	0.0001	meq/g



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TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT	UNITS
Acidity or Alkalinity	USP	The solution is pink (30 $\mu$ L/L, expressed as acetic acid)	Pass	N/A
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	N/A
Color of Solution	USP	The Sample solution has the appearance of water or is not more intensely colored than the Standard solution	Pass	N/A
Identification Test A (Specific Gravity)	USP	It meets the requirements of the test for specific gravity	Pass	N/A
Identification Test B (Infrared Spectroscopy)	USP	Conforms to IR Spectra	Pass	N/A
Identification Test C (Limit of Methanol)	USP	NMT 200 $\mu$ L/L (200ppm) of Methanol	Pass	N/A
Limit of Nonvolatile Residue	USP	NMT 2.5 mg	0.0	mg
Organic Impurities - Acetaldehyde and Acetal	USP	NMT 10 $\mu$ L/L, expressed as acetaldehyde	0	$\mu$ L/L
Organic Impurities - Benzene	USP	NMT 2 $\mu$ L/L	0	$\mu$ L/L
Organic Impurities - Methanol	USP	NMT 200 $\mu$ L/L	1	$\mu$ L/L
Organic Impurities - Sum of all other impurities	USP	NMT 300 $\mu$ L/L	2	$\mu$ L/L
UV Absorbance	USP	NMT 0.40 at 240 nm	0.29	N/A
UV Absorbance	USP	NMT 0.30 between 250 and 260 nm	0.12	N/A
UV Absorbance	USP	NMT 0.10 between 270 and 340 nm	0.02	N/A
UV Absorbance	USP	The spectrum shows a steadily descending curve with no observable peaks or shoulders	Pass	N/A



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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.