



## CERTIFICATE OF ANALYSIS

Product Name	Ethyl Acetate
Grade	General Use HPLC-UV Grade
Catalog #	33000HPLC
Item #	101125
Batch #	220420-B022417
Date of Manufacture:	04/18/2022
Recommended Retest Date:	04/17/2027
Customer PO #	P21233/2
Packaging Type	Case Poly Fluor 4x1 Gal

TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Packaging Site	Internal	Greenfield Global USA Inc. 58 Vale Road, Brookfield, CT 06804 or 1101 Isaac Shelby Drive, Shelbyville, KY 40065	Brookfield CT	N/A
Assay (corrected for water)	ACS	99.5%, min	99.99	%
Color (APHA)	ACS	10 max.	1	N/A
Residue After Evaporation	ACS	0.003% max.	0.000	%
Substances Darkened by Sulfuric Acid	ACS	Passes Test	Pass	N/A
Titration Acid	ACS	0.0009 meq/g max	0.0004	meq/g
Water	ACS	0.2% max.	0.01	%
UV Absorbance @ 255nm	HPLC	1.00 max.	0.52	N/A
UV Absorbance @ 257nm	HPLC	0.50 max.	0.26	N/A
UV Absorbance @ 263nm	HPLC	0.10 max.	0.05	N/A
UV Absorbance @ 275nm	HPLC	0.05 max.	0.02	N/A
UV Absorbance @ 330-400nm	HPLC	0.01 max.	0.00	N/A
Acidity	NF	NMT 0.10 mL of 0.10N NaOH is required	0.05	ml
Assay	NF	98.0-102.0%	100.00	%



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TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Identification A	NF	Infrared Spectroscopy	Pass	N/A
Limit of nonvolatile residue	NF	NMT 0.02%	0.00	%
Chromatographic Purity - Acetaldehyde	NF	NMT 0.1%	None Detected	N/A
Chromatographic Purity - 1-Ethoxy-2-methylpropane	NF	NMT 0.1%	None Detected	N/A
Chromatographic Purity - Methyl compounds	NF	NMT 0.1%	None Detected	N/A
Chromatographic Purity - Other impurities	NF	NMT 0.3%	None Detected	N/A
Readily Carbonizable Substances	NF	No dark zone develops within 15 minutes	Pass	N/A
Specific Gravity @ 25oC	NF	0.894-0.898	0.897	N/A

### Certification and Compliance Statements

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

This product is manufactured for Routine HPLC Analysis and meets the requirements for General Use HPLC Grade, ACS Specifications. This product is not intended for GC or critical HPLC analysis. See Glass Purified, Glass Distilled Grade for those applications

No chemicals whatsoever are used as solvents at any point in the manufacture, processing or packaging of Ethyl Acetate. Only Class 2 and Class 3 residual solvents may appear as impurities / related substances / low level contaminants in Ethyl Acetate. Concentration of Class 2 Option 1 and Class 3 residual solvents is below limits in the current USP/NF General Chapter <467>

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.

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



## CERTIFICATE OF ANALYSIS

This document was electronically signed by Doug Fleischmann on 4/23/2022 2:45:43 PM to indicate Quality Assurance Approval and to release this batch.