

**Ethyl Acetate**

**Grade:** NF/FCC/EP

**Catalog number:** 330NF/FCC/EP

Test	Mono-graph	Specification	Typical Result
Assay	NF	98.0-102.0%	99.96%
Assay as C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	FCC	NLT 99.0%	99.97%
Identification A	NF	Infrared Spectroscopy	Pass
Identification by IR	FCC	Compares favorably to reference spectrum	Pass
Identification A	EP/BP	Boiling point: 76°C-78°C	Pass
Identification B	EP/BP	IR comparable with Reference spectrum	Pass
Identification C	EP/BP	It gives the reaction of acetyl	Pass
Identification D	EP/BP	It gives the reaction of esters	Pass
Description	FCC	Colorless Liquid; Volatile at Low Temperature; Flammable	Pass
Specific Gravity @ 25°C	NF	0.894-0.898	0.8970
Specific Gravity @ 25°C	FCC	0.894-0.898	0.8970
Refractive Index @ 20°C	FCC	1.370-1.375	1.3720
Refractive Index @ 20°C	EP/BP	1.370-1.373	1.3720
Relative Density @ 20°C	EP/BP	0.898-0.902	0.9020
Acidity	NF	NMT 0.10 mL of 0.10N NaOH is required	0.05 mL
Acid Value	FCC	NMT 5.0	1
Acidity	EP/BP	The solution remains pink for not less than 15 sec.	Pass
Odor	FCC	Acetous, Ethereal	Pass

Test	Mono-graph	Specification	Typical Result
Solubility	FCC	Miscible with alcohol, ether, glycerin, most oils; 1mL dissolves in 10 mL water	Pass
Boiling Point	FCC	~77°C	Pass
Readily Carbonizable Substances	NF	No dark zone develops within 15 minutes	Pass
Readily Carbonizable Substances	FCC	To Pass Test	Pass
Reaction with Sulfuric Acid	EP/BP	Interface between the 2 liquids is not colored	Pass
Related substances	EP/BP	NMT 0.2% of the area of the principal peak.	LT 0.1%
Methyl Compounds	FCC	To Pass Test	Pass
Limit of nonvolatile residue	NF	NMT 0.02%	0.00%
Residue After Evaporation	FCC	NMT 0.02%	0.00%
Residue on evaporation	EP/BP	30 ppm max.	0
Chromatographic Purity – Acetaldehyde	NF	NMT 0.1%	None Detected
Chromatographic Purity - 1-Ethoxy-2-methylpropane	NF	NMT 0.1%	None Detected
Chromatographic Purity - Methyl compounds	NF	NMT 0.1%	None Detected
Chromatographic Purity - Other impurities	NF	NMT 0.3%	None Detected
Appearance of Solution	EP/BP	The solution is clear and colorless	Pass
Characters	EP/BP	Appearance: clear, colourless, volatile liquid. Solubility: soluble in water, miscible with acetone, with ethanol (96 per cent) and with methylene chloride.	Pass
Distillation Range	FCC	76-77.5°C	Pass
Water	EP/BP	0.1% max.	0.02%

### **Certification and Compliance Statements**

This product complies with all of the current requirements listed in the United States Pharmacopeia, European Pharmacopeia, National Formulary, Food Chemical Codex monographs.

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 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> and ICH Q3C Impurities: Residual Solvents.

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