





## PRODUCT SPECIFICATIONS SHEET

TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT
Carbonyl Compounds - Formaldehyde	ACS	0.001% max	LT 0.001%
Carbonyl Compounds - Acetaldehyde	ACS	0.001% max	LT 0.001%
Titration Acid	ACS	0.0003 meq/g max.	0.0002 meq/g
Acidity	NF	NMT 0.45mL 0.020N NaOH required	0.10 ml
Titration Base	ACS	0.0002 meq/g max.	0.0001 meq/g
Alkalinity (as NH <sub>4</sub> )	NF	NMT 0.20mL 0.020N H <sub>2</sub> SO <sub>4</sub> required (3 ppm max)	0.05 ml
Acidity or alkalinity	EP/BP	NMT 0.90mL 0.01M NaOH required	0.40 ml
Identification A (Infrared Absorption)	NF	To Pass Test	Pass
Identification B (Infrared Absorption)	EP/BP	To Pass Test	Pass
Identification B (GC Analysis)	NF	To Pass Test	Pass
Identification A (Refractive Index)	EP/BP	1.328-1.330 @20°C	1.329
Appearance	EP/BP	It is clear and colorless	Pass
Characters	EP/BP	Appearance: clear, colourless, volatile, hygroscopic liquid. Solubility: miscible with water and with methylene chloride. bp: about 64 °C. It is flammable.	Characters
Relative Density	EP/BP	0.791 – 0.793@20°C	0.791
Impurity A - Benzene	EP/BP	NMT 2 ppm	0 ppm
Impurity B - Ethanol	EP/BP	Lot Analysis	18 ppm
Related Substances - Any Impurity	EP/BP	NMT 0.1%	LT 0.01%



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TEST	MONO-GRAPH	SPECIFICATION	TYPICAL RESULT
Related Substances - Total Impurities	EP/BP	NMT 0.3%	LT 0.01%
Absorbance @ 230nm	EP/BP	0.15 max.	0.11
Absorbance @ 250nm	EP/BP	0.05 max.	0.02
Absorbance @ 270nm	EP/BP	0.02 max.	0.00
Absorbance @ 290nm	EP/BP	0.01 max.	0.00
Absorbance	EP/BP	Absorption curve between 230nm – 290nm is smooth	Pass
Ag (Silver)	USP<232>	Lot Analysis	0.00 ppm
As (Arsenic)	USP<232>	Lot Analysis	0.00 ppm
Au (Gold)	USP<232>	Lot Analysis	0.00 ppm
Ba (Barium)	USP<232>	Lot Analysis	0.00 ppm
Cd (Cadmium)	USP<232>	Lot Analysis	0.00 ppm
Co (Cobalt)	USP<232>	Lot Analysis	0.00 ppm
Cr (Chromium)	USP<232>	Lot Analysis	0.00 ppm
Cu (Copper)	USP<232>	Lot Analysis	0.00 ppm
Hg (Mercury)	USP<232>	Lot Analysis	0.00 ppm
Ir (Iridium)	USP<232>	Lot Analysis	0.00 ppm
Li (Lithium)	USP<232>	Lot Analysis	0.00 ppm
Mo (Molybdenum)	USP<232>	Lot Analysis	0.00 ppm
Ni (Nickel)	USP<232>	Lot Analysis	0.00 ppm
Os (Osmium)	USP<232>	Lot Analysis	0.00 ppm
Pb (Lead)	USP<232>	Lot Analysis	0.00 ppm
Pd (Palladium)	USP<232>	Lot Analysis	0.00 ppm
Pt (Platinum)	USP<232>	Lot Analysis	0.00 ppm

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Rh (Rhodium)	USP<232>	Lot Analysis	0.00 ppm
Ru (Ruthenium)	USP<232>	Lot Analysis	0.00 ppm
Sb (Antimony)	USP<232>	Lot Analysis	0.00 ppm
Se (Selenium)	USP<232>	Lot Analysis	0.00 ppm
Sn (Tin)	USP<232>	Lot Analysis	0.00 ppm
Tl (Thallium)	USP<232>	Lot Analysis	0.00 ppm
V (Vanadium)	USP<232>	Lot Analysis	0.00 ppm

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