



V1105 KOPTEC , 5 Gallon
CERTIFICATE OF ANALYSIS
ETHYL ALCOHOL USP 190 PROOF
Lot # A09291104H Manufactured September 2011

<u>Parameter</u>	<u>Monograph</u>	<u>UofM</u>	<u>Specifications</u>	<u>Result</u>
Assay – ethyl alcohol	USP/BP/EP/JP	v/v%	94.9-96.0	95.8
Specific gravity @ 15.56°C	USP	N/A	0.8120-0.8160	0.8136
Specific gravity @ 15.0°C	JP	N/A	0.8140-0.8160	0.8146
Relative Density@ 20°C	BP/EP	N/A	0.8051-0.8124	0.8116
Identification Test A	USP Test	N/A	Specific Gravity	Pass
Identification Test A	BP/EP	N/A	Relative Density	Pass
Identification Test B	USP/BP/EP	N/A	Conforms to IR Spectra	Pass
Identification Test B (1)	JP	N/A	Conforms to IR Spectra	Pass
Identification Test C	BP/EP	N/A	Colorimetric Test	Pass
Identification Test D	BP/EP	N/A	Precipitation Test	Pass
Color	USP/JP	N/A	Color of water	Pass
Clarity	USP	N/A	Clear	Pass
Clarity	JP	N/A	Clear	Pass
Water	USP	v/v %	4.0-5.1	4.2
Appearance	BP/EP	N/A	Colorless	Pass
Non volatile residue	USP/BP/EP/JP	ppm	≤ 25	<10

Volatile Impurities

Sum of Actel & Acetaldehyde	USP/BP/EP	ppm	≤ 10	3
Benzene	USP/BP/EP	ppm	≤ 2	<2
Methanol	USP/BP/EP	ppm	≤ 100	<1
Summary of secondary peaks	USP/BP/EP	ppm	≤ 300	<300
For Volatile impurities	JP	Meets the requirement of test		Pass
Acidity (or alkalinity)	USP/BP/EP	ppm	< 30 as acetic acid	Pass
Acidity or alkali	JP	N/A	Colorimetric Test	Pass
UV absorbance @ 240 nm	USP/BP/EP/JP	A	≤0.40	<0.40
UV absorbance @ 250 nm	USP/BP/EP/JP	A	≤0.30	<0.30
UV absorbance @ 260 nm	USP/BP/EP/JP	A	≤0.30	<0.30
UV absorbance @ 270 nm	USP/BP/EP/JP	A	≤0.10	<0.10
UV absorbance @ 235-340 nm)	USP/BP/EP/JP	N/A	Smooth curve	Pass

Reviewed By

Date: September 2011

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Manager, Quality and Technical Services