V1055 KOPTEC , 55 Gallon
CERTIFICATE OF ANALYSIS
ETHYL ALCOHOL USP/Multicompendial 200 PROOF

Lot #043014 Manufactured **February 2020**

Recommended Retest date is three years from the date of manufacture

Parameter	Monograph	UofM	Specifications	Result
Assay – ethyl alcohol	USP/BP/EP/JP	v/v%	≥ 99.9	100.0
Specific gravity @ 15.56°C	USP	N/A	< 0.7962	0.7940
Specific gravity @ 15°C	JP	N/A	< 0.797	0.794
Relative Density@ 20.0°C	BP/EP	N/A	0.790 – 0.793	0.791
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 %	≤ 0.1	0.0
Appearance	BP/EP	N/A	Clear, Colorless	Pass
Non volatile residue	USP/BP/EP/JP	ppm	≤ 25	0.0

Volatile Impurities

Sum of Acetal & Acetaldehyde	USP/BP/EP	ppm	≤ 10	2
Benzene	USP/BP/EP	ppm	≤ 2	0.0
Methanol	USP/BP/EP	ppm	≤ 100	2
Summary of secondary peaks	USP/BP/EP	ppm	≤ 300	0.0
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 @ 250-260 nm	USP/BP/EP/JP	A	≤0.30	<0.30
UV absorbance @ 270-340 nm	USP/BP/EP/JP	A	≤0.10	<0.10
UV absorbance @ 235-340 nm	USP/BP/EP/JP	N/A	The Spectrum shows a steadily descending curve with no observable Peaks or shoulders	Pass

Reviewed By Date: February 2020

Karen Wend
Manager, Quality and Technical Services
COA Template revised 12/01/2015

BSE/TSE Statement: There are no materials of animal origin in the raw materials or in the process aides used to manufacture any DLI products.