# 1 Gallon Glass
# V1001G KOPTEC , 1 Gallon
## CERTIFICATE OF ANALYSIS
## ETHYL ALCOHOL USP/Multicompendial 200 PROOF

Lot# 206015 Manufactured **July 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 | 0.79422-0.79679 | 0.79445 |
| 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 | 2 |

**Volatile Impurities**

| | | | | |
|---|---|---|---|---|
| Sum of Acetal & Acetaldehyde | USP/BP/EP | ppm | ≤ 10 | 3 |
| Benzene | USP/BP/EP | ppm | ≤ 2 | 0.0 |
| Methanol | USP/BP/EP | ppm | ≤ 100 | 0.0 |
| 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: July 2020



Karen Wend
Manager, Quality and Technical Services
*COA Template revised 03/01/2020 JP Range*

**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.