PHARMCO by Greenfield Global

# PRODUCT SPECIFICATIONS SHEET

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|---|---|
| | Ethyl Alcohol 50% |
| Product Name | Grain Derived Ethanol |
| Catalog # | 111000100 |

| TEST | MONO-GRAPH | SPECIFICATION | TYPICAL RESULT |
|---|---|---|---|
| Assay (v/v) | Internal | 49.50% - 50.50% | 50.01 % |
| Proof | 27CFR 30 | Lot Analysis | 100.0 |
| Specific Gravity | Internal | 0.9332 -0.9352 @ 15.56°C | 0.9342 |
| Specific Gravity | Internal | 0.9306-0.9326 @ 20.00°C | 0.9316 |
| Acidity (as acetic acid) | FCC | NMT 0.5 mL of 0.02N sodium hydroxide is required to restore the pink color. (NMT 0.003%) | Pass |
| Alkalinity (as NH3) | FCC | NMT 0.2 mL of 0.02N sulfuric acid is required to restore the red color. (NMT 3 mg/kg) | Pass |
| Organic Impurities - Fusel Oil | FCC | No foreign odor is perceptible when the last traces of alcohol leave the paper. | Pass |
| Identification by Infrared Absorption | FCC | Conforms to IR Spectra | Pass |
| Organic Impurities - Ketones, Isopropyl Alcohol | FCC | No precipitate forms within 3 min. | Pass |
| Inorganic Impurities - Lead | FCC | NMT 0.5 mg/kg | LT 0.5 mg/kg |
| Organic Impurities - Methanol | FCC | 200 ppm max. | 1 ppm |
| Nonvolatile Residue | FCC | NMT 0.003% | 0.000 % |
| Organic Impurities - Any other single impurity | FCC | 1000 ppm max. | 1 ppm |
| Solubility in Water | FCC | No haze or turbidity develops | Pass |
| Organic Impurities - Substances Darkened by Sulfuric Acid | FCC | The mixture is colorless or has no more color than either the acid or the sample before mixing. | Pass |

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|---|---|---|---|
| Organic Impurities - Substances Reducing Permanganate | FCC | The pink color does not entirely disappear. | Pass |
| Organic Impurities - Sum of all impurities | FCC | 5000 ppm max. | 0 ppm |
| Acidity or Alkalinity | USP | The solution is pink (30µg/g, expressed as acetic acid) | Pass |
| Clarity of Solution | USP | Sample solution A and Sample solution B show the same clarity as that of water, or their opalescence is not more pronounced than that of the Standard suspension A. | Pass |
| Color of Solution | USP | The Sample solution has the appearance of water or is not more intensely colored than the Standard solution | Pass |
| Identification Test B (Infrared Spectroscopy) | USP | Conforms to IR Spectra | Pass |
| Limit of Nonvolatile Residue | USP | NMT 2.5 mg | 0.0 mg |
| Organic Impurities - Acetaldehyde and Acetal | USP | NMT 10µL/L, expressed as acetaldehyde | 0 µL/L |
| Organic Impurities - Benzene | USP | NMT 2µL/L | 1 µL/L |
| Organic Impurities - Methanol | USP | NMT 200µL/L | 1 µL/L |
| Organic Impurities - Sum of all other impurities | USP | NMT 300µL/L | 1 µL/L |
| UV Absorbance | USP | NMT 0.40 at 240 nm | 0.02 |
| UV Absorbance | USP | NMT 0.30 between 250 and 260 nm | 0.01 |
| UV Absorbance | USP | NMT 0.10 between 270 and 340 nm | 0.00 |

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This product is for further commercial manufacturing, laboratory, or research use, and may be used as 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.