## Product Specification Sheet

## ETHYL ALCOHOL 95%, Cane Neutral Spirits
**Meets FCC GRADE Monograph**

Main Catalog #: 11100019C-Size Code*

Available in the following sizes:

| *Refer to Master Price List – Individual package sizes have unique size codes |
|---|

| TEST | MONO GRAPH | SPECIFICATION | | TYPICAL RESULTS |
|---|---|---|---|---|
| Assay (by specific gravity @ 25°C | FCC | NLT 94.9% | | 95.02% |
| Proof | 27CFR 30.23 | Lot Analysis | | 190.0 |
| Specific Gravity | FCC | Not more than 0.8096 @ 25.0°C | | 0.8091 |
| Specific Gravity | FCC | Not more than 0.8161 @ 15.56°C | | 0.8157 |
| Inorganic Impurities - Lead | FCC | NMT 0.5 mg/kg | | < 0.5 mg/kg |
| Identification (Infrared Spectra) | FCC | Conforms to IR Spectra | | Pass |
| Organic Impurities – Fusel Oil | FCC | No foreign odor is perceptible when the last traces of alcohol leave the paper. | | Pass |
| Organic Impurities – Ketones, Isopropyl Alcohol | FCC | No precipitate forms within 3 min. | | Pass |
| Organic Impurities – Methanol and Other Volatile Impurities | FCC | Methanol 200 ppm max. Any other single impurity 1000 ppm max. Sum of all impurities 5000 ppm max. | | <5 ppm <1 ppm <20 ppm |
| 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 |
| Organic Impurities – Substances Reducing Permanganate | FCC | The pink color does not entirely disappear. | | Pass |
| Acidity (as Acetic Acid) | FCC | NMT 0.5 mL of 0.02 N sodium hydroxide is required to restore the pink color.  (NMT 0.003%) | | Pass |
| Alkalinity (as NH$_3$) | FCC | NMT 0.2 mL of 0.02 N sulfuric acid is required to restore the red color. (NMT 3 mg/kg) | | Pass |
| Nonvolatile Residue | FCC | NMT 0.003% | | 0.001% |
| Solubility in Water | FCC | No haze or turbidity develops | | Pass |

Form: Ethanol, Pure, 190, FCC, Cane, Rev. 1.1, 10/20, SJH

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.