

## Product Specifications Sheet ETHYL ALCOHOL, 190 PROOF (SYNTHETIC)

## **Synthetically Derived Ethanol**

Meets ACS/USP Grade Monographs

Recommended Retest Date: Three Years from Date of Manufacture Main Catalog #: 11100019S-Size Code\*

## Available in the following sizes:

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

This product meets or exceeds all specifications as set forth in the current ACS/USP monographs.

| TEST                                          | MONOGRAPH   | SPECIFICATION                                                                                                                                |                                                       | TYPICAL<br>RESULTS                    |
|-----------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|
| Assay (by GC, corrected for water)            | ACS         | NLT 95.0%                                                                                                                                    |                                                       | 95.01%                                |
| Assay (by specific gravity@15.56°C)           | USP         | 94.9% - 96.0% (by volume)                                                                                                                    |                                                       | 95.01%                                |
| Proof                                         | 27CFR 30.23 | Lot Analysis                                                                                                                                 |                                                       | 190.0                                 |
| Solubility in Water                           | ACS         | To Pass Test                                                                                                                                 |                                                       | Pass                                  |
| Acetone/Isopropyl Alcohol                     | ACS         | To Pass Test                                                                                                                                 |                                                       | Pass                                  |
| Methanol                                      | ACS         | NMT 0.1%                                                                                                                                     |                                                       | <0.001%                               |
| Substances Darkened by Sulfuric Acid          | ACS         | To Pass Test                                                                                                                                 |                                                       | Pass                                  |
| Substances Reducing Permanganate              | ACS         | To Pass Test                                                                                                                                 |                                                       | Pass                                  |
| Color (APHA)                                  | ACS         | NMT 10                                                                                                                                       |                                                       | <10                                   |
| Titrable Acid                                 | ACS         | NMT 0.0005 meq/g                                                                                                                             |                                                       | 0.0003                                |
| Titrable Base                                 | ACS         | NMT 0.0002 meq/g                                                                                                                             |                                                       | 0.0001                                |
| Acidity or Alkalinity                         | USP         | The solution is pink (30ppm, expressed as acetic acid)                                                                                       |                                                       | Pass                                  |
| Identification Test A (Specific Gravity)      | USP         | It meets the requirements of the test for Specific Gravity                                                                                   |                                                       | Pass                                  |
| Specific Gravity @ 15.56°C                    | USP         | 0.812 - 0.816 @ 15.56°C                                                                                                                      |                                                       | 0.8156                                |
| Identification Test B (Infrared Spectroscopy) | USP         | Conforms to Infrared Spectra (Neat)                                                                                                          |                                                       | Pass                                  |
| Identification Test C (Limit of Methanol)     | USP         | NMT 200 μL/L (200ppm) of Methanol                                                                                                            |                                                       | Pass                                  |
| Clarity of Solution                           | USP         | Sample Solution A & B show the same clarity as that of water, or their opalescence is not more pronounced than that of 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                                  |
| Ultraviolet absorption                        | USP         | Examine between 235nm – 340nn<br>240nm<br>250nm-260nm<br>270nm-340nm<br>The spectrum shows a steadily desobservable peaks or shoulders       | 0.40 max.<br>0.30 max.<br>0.10 max.                   | 0.24<br>0.09<br>0.02<br>Pass          |
| Limit of nonvolatile residue                  | USP         | The weight of the residue does not exceed 2.5mg                                                                                              |                                                       | <1.0 mg                               |
| Residue after evaporation                     | ACS         | NMT 0.001%                                                                                                                                   |                                                       | <0.001%                               |
| Organic Impurities                            | USP         | Methanol Acetaldehyde and Acetal Benzene Sum of all other impurities                                                                         | NMT 200 ppm<br>NMT 10 ppm<br>NMT 2 ppm<br>NMT 300 ppm | <5 ppm<br><1 ppm<br><1 ppm<br><30 ppm |

Form: Ethanol, Pure, 190, ACS/USP, Rev. 5.0, 09/20, PJM

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.