



## Certificate of Analysis: 190 Proof Ethanol USP Grade

DATE: 9/11/2023

PRODUCT:190 Proof Ethanol- USP

BVV PRODUCT NUMBER:E-190--XX

LOT NUMBER: 0000240211

| <u>Property</u>                          | <u>Specifications</u> |            |                   | <u>Assay</u> |
|--|-----------------------|------------|-------------------|--------------|
|  | <u>Min</u>            | <u>Max</u> |                   |              |
| Proof                                    | 189.0                 | 191.00     | Density Meter     | 190.00       |
| Alcohol, % (By Volume)                   | 94.95                 | 95.50      | Density Meter     | 94.98        |
| Specific Gravity@ 15.56C, in air         | 0.81406               | 0.816      | Density Meter     | 0.81593      |
| Nonvolatile Residue in 100ml, mg         | 0.0                   | 2.5        | USP               | 0.0          |
| Identification Test B                    |                       |            | IR                | Pass         |
| Color, As Is                             |                       |            | UV                | Pass         |
| Clarity, as is, UV/VIS Method            |                       |            | UV                | Pass         |
| Alkalinity/Acidity: <30ppm Acetic Acid   |                       |            | USP               | Pass         |
| UV Against Water@240nm: 0.40max          |                       |            | UV                | Pass         |
| UV Against Water @ 250-260nm: 0.30 max   |                       |            | UV                | Pass         |
| UV Against Water@ 270-340nm: 0.10 max    |                       |            | UV                | Pass         |
| UV Curve, descending, no peaks/shoulders |                       |            | UV                | Pass         |
| Acetaldehyde and/or Acetal, ppm          | 0.00                  | 10.00      | Gas Chromatograph | .048         |

**NOTE:**

BVV uses dedicated equipment in the process area for this product. BVV packaged this material to maintain Food Grade designation.

Please consult the SDS for further information.

BVV represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to BVV standard terms and conditions. BVV makes no additional representations or warranties, express or implied, through this COA.