



## ANALYSIS CERTIFICATE

Product : PROPYLENE GLYCOL USP

Batch Number :Z12211U

Date Sampled :21/12/2016

Manufacturing Dates : 21/12/2016

Validity Dates : 21/12/2018

| <u>INSPECTION</u>        | <u>SPECIFICATION</u> | <u>TEST RESULT</u> |
|--------------------------|----------------------|--------------------|
| Identification , -       | Min. Pass            | Pass               |
| Appearance , -           | Min. Clear           | Clear              |
| MPG . wt. %              | Min. 99.8            | 99.99              |
| Sp. Gr. 20/20°C          | 1.037-1.039          | 1.038              |
| Sp. Gr(USP), 25/25°C     | 1.035-1.037          | 1.036              |
| Chloride, ppm            | Max. 1               | 0.1                |
| Sulfate, ppm             | Max. 10              | 0.0                |
| Acidity, ml              | Max. 0.05            | 0.02               |
| Fe, ppm                  | Max. 0.1             | 0.05               |
| Heavy Metals as Pb, ppm  | Max. 1               | LT 1.0             |
| Residue on Ignition, ppm | Max. 20              | 5.0                |
| Water, ppm               | Max. 700             | 100                |
| Color, APHA              | Max. 10              | 2.0                |
| IBP, DegC                | Min. 196             | 196.2              |
| DP, DegC                 | Max. 189             | 187.4              |
| As, ppm                  | Max. 1               | LT 0.1             |
| EG, ppm                  | Max. 50              | 0                  |
| DEG, ppm                 | Max. 50              | 0                  |