

PT. PANCASAKTI PUTRA KENCANA

IMPORTIR AND STOCKIST OF INDUSTRIAL AND FOOD CHEMICALS

F/QCL/002 Rev.02

CERTIFICATE OF ANALYSIS

Product Name : Diethylene Glycol (DEG)

 $\label{eq:Batch No.} \text{Batch No.} \qquad : 20240306$ $\text{Formula} \qquad : C_4H_{10}O_3$

Date Of Analysis : March 06, 2024

| ITEM TEST | UNITS | METHOD | SPECIFICATION | RESULT |
|------------------------------------|--|--|---------------------------|--|
| | | | | |
| Appearance | _ | Visual | Clear Colourless Liquid | Clear Colourless Liquid |
| Colour | Hazen | ASTM D-1209 | max 10 | 4 |
| Specific Gravity at 20 °C | _ | ASTM D-891 | 1.117 – 1.124 | 1.1183 |
| Purity (DEG content) | wt % | GC | min 99.0 | 99.94 |
| MEG content | wt % | ASTM E-2409 | max 0.05 | 0.02 |
| TEG content | wt % | ASTM E-2409 | max 0.05 | 0.04 |
| Water Content | wt % | By KF | max 0.1 | 0.002 |
| Acidity (as CH ₃ COOH) | ppm | ASTM D-1613 | max 50.0 | 5.5 |
| Iron (Fe) | ppm | ASTM E-394 | max 0.10 | < 0.01 |
| Ash content | ppm | ASTM D-482 | max 50.0 | < 10.0 |
| Initial Boiling Point (IBP) | °C | ASTM D-1078 | min 243 | 243.4 |
| Dry Point (DP) | °C | ASTM D-1078 | max 250 | 246.4 |
| | Appearance Colour Specific Gravity at 20 °C Purity (DEG content) MEG content TEG content Water Content Acidity (as CH ₃ COOH) Iron (Fe) Ash content Initial Boiling Point (IBP) | Appearance Colour Hazen Specific Gravity at 20 °C Purity (DEG content) MEG content wt % TEG content Water Content Acidity (as CH ₃ COOH) Iron (Fe) Ash content Initial Boiling Point (IBP) — Hazen wt % wt % ppm ppm ppm ppm ppm | Appearance Visual Colour | Appearance Visual Clear Colourless Liquid Colour Hazen ASTM D-1209 max 10 Specific Gravity at 20 °C ASTM D-891 1.117 – 1.124 Purity (DEG content) wt % GC min 99.0 MEG content wt % ASTM E-2409 max 0.05 TEG content wt % ASTM E-2409 max 0.05 Water Content wt % By KF max 0.1 Acidity (as CH ₃ COOH) ppm ASTM D-1613 max 50.0 Iron (Fe) ppm ASTM E-394 max 0.10 Ash content ppm ASTM D-482 max 50.0 Initial Boiling Point (IBP) °C ASTM D-1078 min 243 |

Remark

This certificate refers to the certificate of analysis from supplier and result of analysis refers to the tested sample only

PT. Pancasakti Putra Kencana

Yuvraj Sagvekar Quality Control