

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME : GLYCEROL AR**

**CAS No : 56-81-5**  
**Mol. Formula : C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>**  
**Mol. wt : 92.09**  
**Date of analysis : 12/07/23**

**Product code : 23420**  
**Batch No. : MCRT-28746**  
**Mfd. : July 2023**  
**Exp. : June 2028**

| S.R | Test                                          | Specification                                                         | Observation                                                      |
|-----|-----------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------|
| 1   | Description                                   | Clear colourless viscous liquid, Colour not more than 20 Hazen units. | Clear colourless viscous liquid, Colour less than 20 Hazen unit. |
| 2   | Assay (GC)                                    | 99 % min                                                              | 99.27%                                                           |
| 3   | Wt. per ml (at 20 <sup>0</sup> c)             | 1.257-1.261g                                                          | 1.258g                                                           |
| 4   | Refractive index                              | 1.471 – 1.473                                                         | 1.472                                                            |
| 5   | Reaction pH                                   | 6.0 -7.0                                                              | 6.80                                                             |
| 6   | Sulphated ash                                 | 0.005% max                                                            | 0.0006%                                                          |
| 7   | Chloride (Cl)                                 | 0.0001% max                                                           | < 0.0001%                                                        |
| 8   | Sulphate (SO <sub>4</sub> )                   | 0.0005% max                                                           | < 0.0005%                                                        |
| 9   | Ammonium (NH <sub>4</sub> )                   | 0.0005% max                                                           | < 0.0005%                                                        |
| 10  | Arsenic (As)                                  | 0.00004% max                                                          | < 0.00004%                                                       |
| 11  | Copper (Cu)                                   | 0.00005% max                                                          | < 0.00005%                                                       |
| 12  | Iron (Fe)                                     | 0.00005% max                                                          | < 0.00005%                                                       |
| 13  | Lead (Pb)                                     | 0.00005% max                                                          | < 0.00005%                                                       |
| 14  | Ester of volatile acids (glycerol tributyrat) | Passes Test                                                           | Passes Test                                                      |
| 15  | Fatty acids                                   | Passes Test                                                           | Passes Test                                                      |
| 16  | Organic impurities                            | Passes Test                                                           | Passes Test                                                      |
| 17  | Reducing substances                           | No reaction                                                           | No reaction                                                      |
| 19  | Sugar (glucose)                               | 0.004% max                                                            | < 0.004%                                                         |

**REMARK: THE PRODUCT COMPLIES WITH THE ABOVE SPECIFICATIONS**

**[Tested By]**

**[QC Incharge]**

**CHEMIST**  
**(Deepa)**

**HEAD-QUALITY ASSRANCE**  
**(G.G.Salian)**

**Note:** Computer generated image requires no sign.