

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME : DIETHANOLAMINE AR**

**CAS No : 111-42-2**

**Product code : 22975**

**Formula : C<sub>4</sub>H<sub>11</sub>NO<sub>2</sub>**

**Batch No : MCAR-00421**

**Mol. WT : 105.14**

**Mfd. : July 2024**

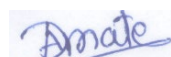
**Date of Analysis : 27/07/24**

**Exp. : June 2029**

| S.R | Test  | Specification  | Observation   |
|-----|---|--|---|
| 1   | <b>Description</b>  | Clear, colourless to faint yellow colour viscous liquid with an amine like odour | Clear, colourless viscous liquid with an amine like odour |
| 2   | <b>Assay (acidimetric)</b>  | 99.0% min  | 99.95%  |
| 3   | <b>Refractive index</b>   | 1.477 – 1.478  | 1.477   |
| 4   | <b>Wt. per ml at 20<sup>0</sup>C</b>  | 1.095 – 1.097g   | 1.097g  |
| 5   | <b>Suitability for use as buffer for alkaline phosphate (test for inhibition)</b> | Passes test  | Passes test   |
| 6   | <b>Sulphated ash</b>  | 0.01% max.   | 0.008%  |
| 7   | <b>Water</b>  | 0.2% max.  | 0.06%   |
| 8   | <b>Triethanolamine</b>  | 1.0% max.  | <1.0%   |
| 9   | <b>Ethanolamine</b>   | 0.5% max.  | <0.5%   |
| 10  | <b>Cadmium(Cd)</b>  | 0.0001% max.   | <0.0001%  |
| 11  | <b>Cobalt (Co)</b>  | 0.0001% max.   | <0.0001%  |
| 12  | <b>Copper (Cu)</b>  | 0.0001% max.   | <0.0001%  |
| 13  | <b>Iron (Fe)</b>  | 0.0001% max.   | <0.0001%  |
| 14  | <b>Lead (Pb)</b>  | 0.0001% max.   | <0.0001%  |
| 15  | <b>Magnesium (Mg)</b>   | 0.0001% max.   | <0.0001%  |
| 16  | <b>Manganese (Mn)</b>   | 0.0001% max.   | <0.0001%  |
| 17  | <b>Nickel (Ni)</b>  | 0.0001% max.   | <0.0001%  |
| 18  | <b>Zinc(Zn)</b>   | 0.0005% max.   | <0.0005%  |

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

**[Tested By]**



**CHEMIST  
(Deepa)**

**[QC Incharge]**



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

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