

## Certificate of Analysis

Date of Testing: 2023-12-28 16:56:46  
Date of Next Testing: 2027-12-27 16:56:46  
Product Name: **Diethanolamine**  
CAS Number: 111-42-2  
Specifications & Purity: 99%  
Lot #: L2322280  
SKU #: **D112360**  
**Analysis:** **312693**  
Storage Temperature: Room temperature, Argon charged, Desiccated

| Parameter  | Limit Values                              | Result                                    |
|--|---|---|
| Purity(Titration by HClO <sub>4</sub> )  | 98.5-101.5 (%)                            | 99.50 %                                   |
| Refractive index n <sub>20</sub> /D  | 1.474-1.479                               | 1.48                                      |
| Purity(GC)   | 99-100 (%)                                | 99.04 %                                   |
| Appearance (D112360)   | White solid or colorless to yellow liquid | White solid or colorless to yellow liquid |
| Infrared spectrum  | Conforms to Structure                     | Conforms to Structure                     |
| Solubility in H <sub>2</sub> O , Colorless ,Clear ,50 mg/mL in pass H <sub>2</sub> O |   | Pass                                      |



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