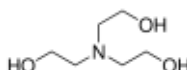


Certificate of Analysis

Product Name:

Triethanolamine - ≥99.0% (GC)

Product Number: 90279
Batch Number: BCCK1542
Brand: SIGMA
CAS Number: 102-71-6
Formula: C₆H₁₅NO₃
Formula Weight: 149,19 g/mol
Quality Release Date: 15 MAR 2023



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid or Viscous Liquid	Viscous Liquid
Purity (GC)	≥ 99.0 %	99.5 %
GC Minor Component 1 Ethanolamine	≤ 0.10 %	0.00 %
GC Minor Component 2 Diethanolamine	≤ 0.30 %	0.18 %
Refractive index at 20 °C	1.484 - 1.486	1.484
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity) 1.5g in 10ml Water	Clear	Clear
Water	≤ 0.2 %	0.1 %
Infrared Spectrum	Conforms to Structure	Conforms
Metal Trace Analysis (ICP)	Corresponds to Requirements	Pass
Calcium (Ca)	≤ 5 mg/kg	< 5 mg/kg
Cadmium (Cd)	≤ 1 mg/kg	< 1 mg/kg
Cobalt (Co)	≤ 1 mg/kg	< 1 mg/kg
Chromium (Cr)	≤ 1 mg/kg	< 1 mg/kg
Copper (Cu)	≤ 1 mg/kg	< 1 mg/kg
Iron (Fe)	≤ 1 mg/kg	< 1 mg/kg
Potassium (K)	≤ 20 mg/kg	< 20 mg/kg
Magnesium (Mg)	≤ 1 mg/kg	< 1 mg/kg
Manganese (Mn)	≤ 1 mg/kg	< 1 mg/kg
Nickel (Ni)	≤ 1 mg/kg	< 1 mg/kg

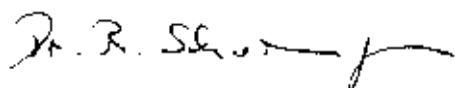
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Certificate of Analysis

Product Number: 90279
Batch Number: BCCK1542

Test	Specification	Result
Lead (Pb)	≤ 1 mg/kg	< 1 mg/kg
Zinc (Zn)	≤ 1 mg/kg	< 1 mg/kg
Total Sulfur as SO ₄ (ICP)	≤ 20 mg/kg	< 20 mg/kg
Chloride (Cl)	≤ 5 mg/kg	< 5 mg/kg



Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland CH

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