

F-QC-001 Rev.00

Certificate Of Analysis

Product Name : Diethanolamine 99 % AR

Catalog Number : B-3027

Batch Number : 3027-00000000

CAS Number : 111-42-2

Molecular Weight : 105.14 g/mol

Mol. Formula : $C_4H_{11}NO_2$

Expire Date : 60 Months

SAMPLE

No	Test	Specifications	Results
1	Appearance	Clear viscous liquid	Clear viscous liquid
2	Assay (by GC)	min 99.0 %	99.69%
3	Wt. per ml at 20°C	1.095 – 1.097 g/cm ³	1.097 g/cm ³
4	Refractive index (n_D^{20})	1.477 – 1.478	1.478
5	Apparent equivalent weight	104 – 106	105
6	Freezing point	27 – 28 °C	27.6 °C
7	Colour	max 15 APHA	7 APHA
8	Residu on ignition (as SO ₄)	max 0.005 %	0.0029%
9	Water (H ₂ O)	max 0.15 %	0.099%
10	Ethanolamine (GC)	max 0.3 %	0.11%
11	Triethanolamine (GC)	max 0.3 %	0.07%
12	Chloride (Cl)	max 0.001 %	0.0005%
13	Heavy metals (as Pb)	max 0.0001 %	0.00008%
14	Iron (Fe)	max 0.0001 %	0.00006%

Corresponds to AR / ACS Grade

LABOTIQ Standard of Product Reference to Analar standard and ACS specification

SUDIRO S.Si.
Manager QC