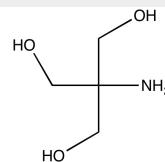


**Tris-(hydroxymethyl)-aminomethane, buffer subs., ExpertQ®, ACS,
Reag. Ph Eur****Identification**

C₄H₁₁NO₃
M = 121,14 g/mol
CAS [77-86-1]
EC number: 201-064-4
Taric code: 2922 19 85

**Synonyms**

2-Amino-2-(hydroxymethyl)-1,3-propanediol, Tromethamine, THAM, TRIS buffer

Applications

analytical chemistry, in buffer solutions, in biochemistry, laboratory reagent, in the pharmaceuticals industry, emulsifier (cosmetics), for the synthesis of: tensioactives.

Specifications

assay (acidimetric, on dried sample).....	99,8 - 100,1 %	lead (Pb).....	max. 0,1 ppm
assay (acidimetric, referred to dried sample).....	99,0 - 100,5 %	magnesium (Mg).....	max. 0,3 ppm
identification.....	passes test	potassium (K).....	max. 0,3 ppm
appearance of solution.....	clear	sodium (Na).....	max. 1 ppm
insoluble in water.....	max. 0,003 %	zinc (Zn).....	max. 0,1 ppm
pH (5 %, H ₂ O).....	10,3 - 10,9	related substances (TLC).....	passes test
chlorides (Cl).....	max. 0,0005 %	loss on drying (105 °C).....	max. 0,5 %
sulfates (SO ₄).....	max. 0,0005 %	residue on ignition.....	max. 0,1 %
arsenic (As).....	max. 0,2 ppm	water (K.F.).....	max. 0,5 %
cadmium (Cd).....	max. 0,1 ppm	absorbance (40 %, 1 cm, H ₂ O):	
calcium (Ca).....	max. 1 ppm	at wavelength :	
copper (Cu).....	max. 0,1 ppm	290 nm.....	max. 0,20 AU
heavy metals (as Pb).....	max. 5 ppm		
iron (Fe).....	max. 5 ppm		

Physical data

- Appearance: bright elongate crystals, colourless
- Spec. Density: 1,353 g/cm³
- Bulk density: ~ 840 kg/m³
- Solub. in water: (20 °C): 800 g/l
- Melting point: 172 - 173 °C
- Boiling point: (13,3 hPa) 219 - 220 °C
- pH(6 g/l H₂O, 20 °C) 10,2 - 10,6

Safety - GHS

Signal Word: Warning

**Hazard Statements:**

H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary Statements:

- P280: Wear protective gloves / protective clothing / eye protection / face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see on this label).
P362: Take off contaminated clothing and wash before reuse.
P332+P313: If skin irritation occurs: Get medical advice / attention.
P337+P313: If eye irritation persists: Get medical advice / attention.

Toxicological data

- LD 50 (oral, rat): 5900 mg/kg
- WGK: 1

Transport/storage

- Store between 15°C and 25°C