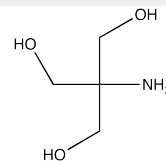


**Tris-(hydroxymethyl)-aminomethane, buffer substance, for analysis,
ExpertQ®, ACS, Reag. Ph Eur**
Identification

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: tensoactives.

Specifications

assay (acidimetric, on dried sample)..... 99,8 - 100,1 %
assay (acidimetric, referred to dried sample)..... 99,0 - 100,5 %
identification..... passes test
appearance of solution..... clear
insoluble in water..... max. 0,003 %
pH (5 %, H₂O)..... 10,3 - 10,9
chlorides (Cl)..... max. 0,0005 %
sulfates (SO₄)..... max. 0,0005 %
arsenic (As)..... max. 0,2 ppm
cadmium (Cd)..... max. 0,1 ppm
calcium (Ca)..... max. 1 ppm
copper (Cu)..... max. 0,1 ppm
heavy metals (as Pb)..... max. 5 ppm

iron (Fe)..... max. 5 ppm
lead (Pb)..... max. 0,1 ppm
magnesium (Mg)..... max. 0,3 ppm
potassium (K)..... max. 0,3 ppm
sodium (Na)..... max. 1 ppm
zinc (Zn)..... max. 0,1 ppm
related substances (TLC)..... passes test
loss on drying (105 °C)..... max. 0,5 %
residue on ignition..... max. 0,1 %
water (K.F.)..... max. 0,5 %

absorbance (40 %, 1 cm, H₂O): at wavelegth :
290 nm..... max. 0,20 AU

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.
P264: Wash thoroughly after handling.
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).
P332+P313: If skin irritation occurs: Get medical advice / attention.
P337+P313: If eye irritation persists: Get medical advice / attention.

Transport/storage

- 10°C - 30°C