>>**Entry Name: Tris(2-hydroxyethyl)amine**
Synonym(s): 2,2',2"-Nitrilotrisethanol, 9CI. 2,2',2"-Nitritotriethanol, 8CI. 2,2',2"-Trihydroxytriethylamine. Triethanolamine. Tricolamine. **Trolamine,** USAN**.** Alkanolamine 244. Daltogen. Sting-Kill. TEA

CAS Registry Number: 102-71-6
Related CAS Registry Numbers(s): 2224-49-9 2717-15-9 27323-41-7 41669-40-3

$N(CH_2CH_2OH)_3$

Molecular Formula: $C_6H_{15}NO_3$
Molecular Weight: 149.189
Accurate Mass: 149.105194
Percentage Composition: C 48.31%; H 10.13%; N 9.39%; O 32.17%
Source/Synthesis: Manuf. by reaction of Oxirane CWG30-E with ammonia
Use/Importance: Emulsifying agent in pharmaceutical formulations. Catalyst for condensation reacns. Used as 10% aq. soln. of chloride salt for photometric detn. of CS_2; as a masking agent for Fe(*III*), Al. Used in manuf. of detergents
Physical Description: Hygroscopic, viscous liq.
Melting Point: Mp 21.6°
Boiling Point: Bp 335.4°
Solubility: Misc. H_2O, MeOH, Me_2CO
pKa Value: pK_a 7.76 (25°)
Calculated Log P Data: Log P –1.51 (calc)
Other Data: Not volatile in steam. Darkens in air
Hazard & Toxicity: Skin and eye irritant. LD_{50} (rat, orl) 8000 mg/kg. Fl. p. 179°

Aldrich: T5830-0
Fluka: 90279
Sigma: T1377

>>**Derivative:** Hydrochloride

CAS Registry Number: 637-39-8
Physical Description: Cryst. (EtOH)
Melting Point: Mp 177°
Solubility: Spar. sol. H_2O, EtOH
Aldrich: 15891-7
Fluka: 90290
Sigma: T9534

>>**Derivative:** Hydrobromide

CAS Registry Number: 25114-70-9
Physical Description: Cryst. (EtOH)
Melting Point: Mp 196-197°

>>**Derivative:** Octadecanoate salt

CAS Registry Number: 4568-28-9
Melting Point: Mp 42-44°

>>**Derivative:** Phosphate salt

CAS Registry Number: 10017-56-8
Physical Description: Cryst.
Melting Point: Mp 106-107°

>>**Derivative:** Dodecylsulfonium salt

CAS Registry Number: 139-96-8
Use/Importance: Surfactant
Physical Description: Cryst.
Melting Point: Mp 72-74°