



>>Entry Name: 2,2'-Oxybisethanol, 9CI

ENTRY UNDER REVIEW

Synonym(s): Diethylene glycol, 8CI. Bis(2-hydroxyethyl) ether. Diglycol. Digol. 2,2'-Dihydroxydiethyl ether. Ethylene diglycol. 3-Oxa-1,5-pentanediol

CAS Registry Number: 111-46-6

Related CAS Registry Numbers(s): 3088-31-1

HOCH₂CH₂OCH₂CH₂OH

Molecular Formula: C₄H₁₀O₃

Molecular Weight: 106.121

Accurate Mass: 106.062995

Percentage Composition: C 45.27%; H 9.50%; O 45.23%

Source/Synthesis: Formed as by-product of ethylene glycol manuf. by hydrol. of ethylene oxide

Use/Importance: Antifreeze, lubricating agent, softeners, finishing agent for fabrics, solv. for vat dyes. Used in the manuf. of unsatd. polyester resins and polyurethanes

Physical Description: Extremely hygroscopic syrupy liq.

Melting Point: Mp -6.5°

Boiling Point: Bp 244°. Bp₁₄ 133°. Bp₇ 119-120°

Solubility: Sol. H₂O, EtOH, Me₂CO, Et₂O; insol. C₆H₆, toluene, CCl₄

Density: d₄¹⁵ 1.12

Refractive Index: n_D²⁰ 1.4472

Other Data: Vp 0.01 mmHg (30°)

Hazard & Toxicity: Fl. p. 124°, autoignition temp. 224/229°. Eye and human skin irritant. Exp. reprod. and teratogenic effects. OES: long-term 23 ppm

Aldrich: H2645-6

Fluka: 32170

Sigma: D3381

>>Derivative: Di-Ac

CAS Registry Number: 628-68-2

Molecular Formula: C₈H₁₄O₅

Molecular Weight: 190.196

Accurate Mass: 190.084125

Percentage Composition: C 50.52%; H 7.42%; O 42.06%

Boiling Point: Bp 250°. Bp₁₆ 110-135°

Hazard & Toxicity: Fl. p. 135° (oc)

Rare Chemicals Library: S62254-0

>>Derivative: Bis(chloroformyl)

Synonym(s): Oxydi-2,1-ethanediyl carbonochloridate

CAS Registry Number: 106-75-2

Molecular Formula: C₆H₈Cl₂O₅

Molecular Weight: 231.032

Accurate Mass: 229.974879

Percentage Composition: C 31.19%; H 3.49%; Cl 30.69%; O 34.63%

Physical Description: Liq.

Boiling Point: Bp₅ 125-127°

Density: d₄²⁰ 1.39

Refractive Index: n_D²⁰ 1.4542

Rare Chemicals Library: S34626-8

>>Derivative: Di-2-propenoyl

CAS Registry Number: 4074-88-8

Molecular Formula: C₁₀H₁₄O₅

Molecular Weight: 214.218

Accurate Mass: 214.084125

Percentage Composition: C 56.07%; H 6.59%; O 37.34%

Use/Importance: Cross-linking agent. Used in photopolymerisable compds.

Boiling Point: Bp₂ 94°

Refractive Index: n_D²⁰ 1.4572

Aldrich: 43743-3