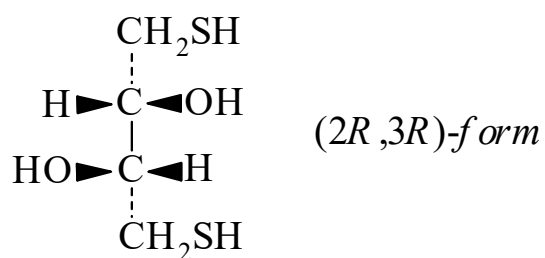




>>Entry Name: 1,4-Dimercapto-2,3-butanediol, 9CI

Synonym(s): 2,3-Dihydroxy-1,4-butanedithiol



CAS Registry Number: 7634-42-6

Related CAS Registry Numbers(s): 3483-12-3

Molecular Formula: $\text{C}_4\text{H}_{10}\text{O}_2\text{S}_2$

Molecular Weight: 154.254

Accurate Mass: 154.01222

Percentage Composition: C 31.15%; H 6.53%; O 20.74%; S 41.58%

>>Variant: (2R,3R)-form

Synonym(s): (–)-threo-form

CAS Registry Number: 16096-97-2

Molecular Formula: $\text{C}_4\text{H}_{10}\text{O}_2\text{S}_2$

Molecular Weight: 154.254

Accurate Mass: 154.01222

Percentage Composition: C 31.15%; H 6.53%; O 20.74%; S 41.58%

Physical Description: Needles (Et_2O) or by subl.

Melting Point: Mp 48.2-49.8°

Optical Rotation: $[\alpha]_{\text{D}}^{22} -11.9$ (c, 2.4 in CHCl_3)

Aldrich: 21925-8

Fluka: 43818

Sigma: D9760

>>Variant: (2RS,3RS)-form

Synonym(s): (±)-threo-form. Dithiothreitol. Cleland's reagent. DTT

CAS Registry Number: 27565-41-9

Molecular Formula: $\text{C}_4\text{H}_{10}\text{O}_2\text{S}_2$

Molecular Weight: 154.254

Accurate Mass: 154.01222

Percentage Composition: C 31.15%; H 6.53%; O 20.74%; S 41.58%

Use/Importance: Protective reagent for -SH groups

Melting Point: Mp 42-44°

Boiling Point: Bp₁ 115-116°

Aldrich: 45777-9

Fluka: 43817

Sigma: D5545

>>Variant: (2RS,3SR)-form

Synonym(s): erythro-form. meso-form. Dithioerythritol

CAS Registry Number: 6892-68-8

Molecular Formula: $\text{C}_4\text{H}_{10}\text{O}_2\text{S}_2$

Molecular Weight: 154.254

Accurate Mass: 154.01222

Percentage Composition: C 31.15%; H 6.53%; O 20.74%; S 41.58%

Physical Description: Small plates (Et_2O /petrol)

Melting Point: Mp 82-83°

Aldrich: 16176-4

Fluka: 43794

Sigma: D9680