



>>Entry Name: Dibutyl sulfide, 8CI

ENTRY UNDER REVIEW

Synonym(s): 1,1'-Thiobisbutane, 9CI. Butyl sulfide. 5-Thianonane. FEMA 2215

CAS Registry Number: 544-40-1

$\text{H}_3\text{C}(\text{CH}_2)_3\text{S}(\text{CH}_2)_3\text{CH}_3$

Molecular Formula: $\text{C}_8\text{H}_{18}\text{S}$

Molecular Weight: 146.296

Accurate Mass: 146.11292

Percentage Composition: C 65.68%; H 12.40%; S 21.92%

Use/Importance: Inhibits corrosion of iron in acids. Used in extraction of metals

Physical Description: Liq.

Melting Point: Mp -80°

Boiling Point: Bp $185-185.5^\circ$

Solubility: Insol. H_2O , sol. Et_2O

Density: d^{20}_4 0.84

Refractive Index: n^{20}_D 1.4926

Hazard & Toxicity: Skin irritant. LD₅₀ (rat, orl) 2220 mg/kg

Aldrich: W22150-3

Fluka: 34840

>>Derivative: S-Oxide

Synonym(s): 1,1'-Sulfinylbisbutane, 9CI. Dibutyl sulfoxide

CAS Registry Number: 2168-93-6

Molecular Formula: $\text{C}_8\text{H}_{18}\text{OS}$

Molecular Weight: 162.296

Accurate Mass: 162.107835

Percentage Composition: C 59.21%; H 11.18%; O 9.86%; S 19.76%

Physical Description: Needles

Melting Point: Mp 31°

Boiling Point: Bp₃ $102-105^\circ$

Aldrich: B10240-7

>>Derivative: S,S-Dioxide

Synonym(s): 1,1'-Sulfonylbisbutane, 9CI. Dibutyl sulfone

CAS Registry Number: 598-04-9

Molecular Formula: $\text{C}_8\text{H}_{18}\text{O}_2\text{S}$

Molecular Weight: 178.295

Accurate Mass: 178.10275

Percentage Composition: C 53.89%; H 10.18%; O 17.95%; S 17.98%

Physical Description: Plates (H_2O)

Melting Point: Mp 44°

Aldrich: B10220-2

References:

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