



>>Entry Name: Dipropyl sulfide

Synonym(s): 1,1'-Thiobispropane, 9Cl. Propyl sulfide, 8Cl

CAS Registry Number: 111-47-7

H3CCH2CH2SCH2CH2CH3

Molecular Formula: C₆H₁₄S

Molecular Weight: 118.243

Accurate Mass: 118.08162

Percentage Composition: C 60.95%; H 11.93%; S 27.12%

Physical Description: Liq.

Melting Point: Mp -101.9°

Boiling Point: Bp 141-142°

Solubility: Insol. H₂O

Density: d₄²⁰ 0.84

Other Data: Forms molecular compds. with Pt salts

Hazard & Toxicity: Flammable, fl. p. 31°

Aldrich: P5428-0

Fluka: 43590

Rare Chemicals Library: S40995-2

>>Derivative: HgCl₂ addn. compd.

Melting Point: Mp 88-89°

>>Derivative: S-Oxide

Synonym(s): Dipropyl sulfoxide. 1,1'-Sulfinylbispropane, 9Cl. Propyl sulfoxide, 8Cl

CAS Registry Number: 4253-91-2

Molecular Formula: C₆H₁₄OS

Molecular Weight: 134.242

Accurate Mass: 134.076535

Percentage Composition: C 53.68%; H 10.51%; O 11.92%; S 23.89%

Physical Description: Needles

Melting Point: Mp 14.5-15°

Boiling Point: Bp₁₅ 82°. Bp_{0.3} 63°

Hazard & Toxicity: LD₅₀ (rat,orl) >500 mg/kg

Rare Chemicals Library: S44097-3

>>Derivative: S,S-Dioxide

Synonym(s): Dipropyl sulfone. 1,1'-Sulfonylbispropane, 9Cl. Propyl sulfone, 8Cl

CAS Registry Number: 598-03-8

Molecular Formula: C₆H₁₄O₂S

Molecular Weight: 150.241

Accurate Mass: 150.07145

Percentage Composition: C 47.97%; H 9.39%; O 21.30%; S 21.34%

Melting Point: Mp 29-30°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 428A, (nmr)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 349C, (ir)

Aldrich Library of Infrared Spectra, 3rd edn., 1981, 156F, (ir)

Wood, A.E. *et al.*, *J.A.C.S.*, 1928, **50**, 1226, (sulfone)

Org. Synth., Coll. Vol., 2, 1943, 547, (synth)

Harville, R. *et al.*, *J.O.C.*, 1968, **33**, 3976, (sulfoxide)

Olah, G.A. *et al.*, *Synthesis*, 1979, 61, (synth)

Sax, N.I., *Dangerous Properties of Industrial Materials*, 5th edn., Van Nostrand Reinhold, 1979, 945