



>>Entry Name: Didecyl sulfide

Synonym(s): 1,1'-Thiobisdecane, 9Cl. Decyl sulfide, 8Cl

CAS Registry Number: 693-83-4

$\text{H}_3\text{C}(\text{CH}_2)_9\text{S}(\text{CH}_2)_9\text{CH}_3$

Molecular Formula:  $\text{C}_{20}\text{H}_{42}\text{S}$

Molecular Weight: 314.618

Accurate Mass: 314.30072

Percentage Composition: C 76.35%; H 13.45%; S 10.19%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 27-27.5°

Boiling Point: Bp<sub>1.5</sub> 178-180° (lit. gives a pressure range)

Refractive Index: n<sub>D</sub><sup>26</sup> 1.4612

Rare Chemicals Library: S35997-1

>>Derivative: S-Oxide

Synonym(s): Didecyl sulfoxide

CAS Registry Number: 2168-95-8

Molecular Formula:  $\text{C}_{20}\text{H}_{42}\text{OS}$

Molecular Weight: 330.617

Accurate Mass: 330.295635

Percentage Composition: C 72.66%; H 12.80%; O 4.84%; S 9.70%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 79-80°

Rare Chemicals Library: S54035-8

Other: PB D18740

>>Derivative: S,S-Dioxide

Synonym(s): Didecyl sulfone

CAS Registry Number: 111530-37-1

Molecular Formula:  $\text{C}_{20}\text{H}_{42}\text{O}_2\text{S}$

Molecular Weight: 346.617

Accurate Mass: 346.29055

Percentage Composition: C 69.30%; H 12.21%; O 9.23%; S 9.25%

Melting Point: Mp 88-89°

References:

Kharasch, M.S. *et al.*, *J.A.C.S.*, 1951, **73**, 967, (*synth, dioxide*)

Ostrowski, Z. *et al.*, *Rocz. Chem.*, 1957, **31**, 1327, (*oxide*)