



>>Entry Name: 1-Decanethiol, 9CI

Synonym(s): Decyl mercaptan. 1-Mercaptodecane

CAS Registry Number: 143-10-2

$\text{H}_3\text{C}(\text{CH}_2)_8\text{CH}_2\text{SH}$

Molecular Formula: $\text{C}_{10}\text{H}_{22}\text{S}$

Molecular Weight: 174.35

Accurate Mass: 174.14422

Percentage Composition: C 68.89%; H 12.72%; S 18.39%

Physical Description: Liq.

Melting Point: Mp -26°

Boiling Point: Bp 240° . Bp₁₃ 114°

Refractive Index: n_D^{25} 1.4550

Hazard & Toxicity: Irritant

Aldrich: D160-2

Fluka: 30640

Rare Chemicals Library: S55421-9

>>Derivative: S-Me

Synonym(s): 1-(Methylthio)decane. Decyl methyl sulfide

CAS Registry Number: 22438-39-7

Molecular Formula: $\text{C}_{11}\text{H}_{24}\text{S}$

Molecular Weight: 188.377

Accurate Mass: 188.15987

Percentage Composition: C 70.14%; H 12.84%; S 17.02%

Physical Description: Liq.

Boiling Point: Bp₁₃ 125°

Rare Chemicals Library: S54016-1

>>Derivative: S-Me, S-oxide

Synonym(s): 1-(Methylsulfinyl)decane, 9CI. Decyl methyl sulfoxide, 8CI

CAS Registry Number: 3079-28-5

Molecular Formula: $\text{C}_{11}\text{H}_{24}\text{OS}$

Molecular Weight: 204.376

Accurate Mass: 204.154785

Percentage Composition: C 64.65%; H 11.84%; O 7.83%; S 15.69%

Physical Description: Cryst.

Melting Point: Mp $52-53^\circ$

>>Derivative: S-Et

Synonym(s): 1-(Ethylthio)decane, 9CI. Decyl ethyl sulfide

CAS Registry Number: 19313-61-2

Molecular Formula: $\text{C}_{12}\text{H}_{26}\text{S}$

Molecular Weight: 202.403

Accurate Mass: 202.17552

Percentage Composition: C 71.21%; H 12.95%; S 15.84%

Boiling Point: Bp₁₆ 137°

Refractive Index: n_D^{20} 1.4592

Rare Chemicals Library: S54692-5

Other: PB D01070

References:

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Obolentsev, R.D. *et al.*, *Khim. Seraorg. Soedin., Soederzh. Neftiyakh. Nefteprod.*, 1972, **9**, 89, (synth, pmr)

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Correa, P.E. *et al.*, *J.O.C.*, 1988, **53**, 1695-1702, (S-Me S-oxide)

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