



**>>Entry Name: Dioctyl sulfide**

**Synonym(s):** 1,1'-Thiobisoctane, 9Cl. Octyl sulfide, 8Cl

**CAS Registry Number:** 2690-08-6

**Type of Compound Code(s):** PA3150 PS7700

$\text{H}_3\text{C}(\text{CH}_2)_7\text{S}(\text{CH}_2)_7\text{CH}_3$

**Molecular Formula:**  $\text{C}_{16}\text{H}_{34}\text{S}$

**Molecular Weight:** 258.511

**Accurate Mass:** 258.23812

**Percentage Composition:** C 74.34%; H 13.26%; S 12.40%

**Use/Importance:** Used in extraction-separation of Pd

**Physical Description:** Liq. with strong odour

**Boiling Point:** Bp<sub>10</sub> 180°. Bp<sub>4</sub> 160-162°

**Aldrich:** O-700-7

**Fluka:** 42440

**>>Derivative: S-Oxide**

**Synonym(s):** 1,1'-Sulfinylbisoctane, 9Cl. Octyl sulfoxide, 8Cl. Dioctyl sulfoxide

**CAS Registry Number:** 1986-89-6

**Type of Compound Code(s):** PS7700 PA4550

**Molecular Formula:**  $\text{C}_{16}\text{H}_{34}\text{OS}$

**Molecular Weight:** 274.51

**Accurate Mass:** 274.233035

**Percentage Composition:** C 70.01%; H 12.48%; O 5.83%; S 11.68%

**Use/Importance:** Used as  $\text{C}_6\text{H}_6$  soln. for extraction-sepn. of Te(IV) from Se(IV) (9M HCl)

**Physical Description:** Cryst. (EtOH aq.)

**Melting Point:** Mp 71-72°

**>>Derivative: S,S-Dioxide**

**Synonym(s):** 1,1'-Sulfonylbisoctane, 9Cl. Octyl sulfone. Dioctyl sulfone

**CAS Registry Number:** 7726-20-7

**Molecular Formula:**  $\text{C}_{16}\text{H}_{34}\text{O}_2\text{S}$

**Molecular Weight:** 290.509

**Accurate Mass:** 290.22795

**Percentage Composition:** C 66.15%; H 11.80%; O 11.01%; S 11.04%

**Physical Description:** Cryst.

**Melting Point:** Mp 78-79°

**References:**

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Laurence, G., *C. R. Hebd. Seances Acad. Sci.*, 1969, **269**, 352, (*oxide, synth*)  
Landini, D. *et al.*, *Synthesis*, 1974, 565, (*synth*)  
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Venier, C.G. *et al.*, *J.O.C.*, 1982, **47**, 3773, (*oxides, synth*)  
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