



**>>Entry Name: Diphenyl sulfide**

**Synonym(s):** 1,1'-Thiobisbenzene, 9Cl. Phenyl sulfide, 8Cl. Thiophenol phenyl ether. Diphenyl thioether

**CAS Registry Number:** 139-66-2

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

**Molecular Formula:** C<sub>12</sub>H<sub>10</sub>S

**Molecular Weight:** 186.277

**Accurate Mass:** 186.05032

**Percentage Composition:** C 77.38%; H 5.41%; S 17.21%

**Use/Importance:** Used as a 3% soln. in C<sub>6</sub>H<sub>6</sub> for detn. of Pd

**Physical Description:** Cryst.

**Boiling Point:** Bp<sub>18</sub> 162-163°

**Solubility:** Sol. common org. solvs.

**Density:** d<sub>4</sub><sup>20</sup> 1.113

**Hazard & Toxicity:** Flammable, fl. p. 29°. Eye irritant. LD<sub>50</sub> (rat, orl) 490 mg/kg

**Aldrich:** P3531-6

**Fluka:** 43320

**>>Derivative:** S-Oxide

see Diphenyl sulfoxide, [DSS99-W](#)

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

see Diphenyl sulfone, [DST00-R](#)

**References:**

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Madsen, J.O. *et al.*, *Tet. Lett.*, 1965, 4377, (ms)

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Pitombo, L., *Anal. Chim. Acta*, 1969, **46**, 158, (detn, Pd)

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Shapiro, M.J., *J.O.C.*, 1978, **43**, 742, (cmr)

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