



>>Entry Name: Benzenesulphenyl chloride

Synonym(s): Phenylsulphenyl chloride. (Chlorothio)benzene

CAS Registry Number: 931-59-9

PhSCl

Molecular Formula: C₆H₅ClS

Molecular Weight: 144.624

Accurate Mass: 143.980047

Percentage Composition: C 49.83%; H 3.48%; Cl 24.51%; S 22.17%

Use/Importance: Reagent for alkylation of allylic alcohols, chlorosulphenylations, dehydrochlorination, etc.

Physical Description: Hygroscopic dark red liq.

Boiling Point: Bp₉ 73-75°. Bp₄ 49° (also reported as Bp₄ 66°)

References:

Mueller, W.H. *et al.*, *J.A.C.S.*, 1968, **90**, 2075-2081, (*synth*)

Schank, K. *et al.*, *Annalen*, 1972, **760**, 27-36, (*synth*)

Toyoshima, K. *et al.*, *J.O.C.*, 1978, **43**, 2789-2792, (*props*)

Masaki, Y. *et al.*, *Chem. Lett.*, 1979, 1235-1238, (*use*)

Hiroi, K. *et al.*, *Chem. Pharm. Bull.*, 1979, **27**, 2338-2344, (*use*)

Fleming, I. *et al.*, *Tet. Lett.*, 1979, 3205-3208, (*use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 32; 1982, **10**, 3; 1990, **15**, 19; 1982, **10**, 24; 1989, **14**, 27; 1984, **11**, 34; 1981, **9**, 35; 1984, **11**, 39; 1986, **12**, 42; 1981, **9**, 429, (*use*)

Bartels, B. *et al.*, *Tet. Lett.*, 1987, **28**, 2985-2988, (*use*)

Gibbs, R.A. *et al.*, *J.A.C.S.*, 1989, **111**, 3717-3725, (*synth*)