



>>Entry Name: Diphenyldisulfimide

Synonym(s): *N*-(Phenylsulfonyl)benzenesulfonamide, 9CI. Dibenzenesulfonamide, 8CI. Dibenzenesulfimide

CAS Registry Number: 2618-96-4

Type of Compound Code(s): PM5990

PhSO₂NHSO₂Ph

Molecular Formula: C₁₂H₁₁NO₄S₂

Molecular Weight: 297.355

Accurate Mass: 297.012949

Percentage Composition: C 48.47%; H 3.73%; N 4.71%; O 21.52%; S 21.57%

Use/Importance: Used as an acidimetric standard

Physical Description: Cryst. (C₆H₆ or MeOH aq.)

Melting Point: Mp 157.5-158.5° (156-157°)

Solubility: Sol. H₂O

pKa Value: p*K*_a 1.45

Fluka: 33532

Rare Chemicals Library: S44087-6

>>Derivative: N-Fluoro

Synonym(s): *N*-Fluoro-*N*-(phenylsulfonyl)benzenesulfonamide, 9CI

CAS Registry Number: 133745-75-2

Molecular Formula: C₁₂H₁₀FNO₄S₂

Molecular Weight: 315.346

Accurate Mass: 315.003527

Percentage Composition: C 45.71%; H 3.20%; F 6.02%; N 4.44%; O 20.29%; S 20.34%

Use/Importance: Reagent for fluorination of enolates

Melting Point: Mp 114-116° (110° dec.)

Aldrich: 39271-5

Fluka: 46836

References:

Runge, F. *et al.*, *Fresenius' Z. Anal. Chem.*, 1957, **158**, 266, (*use*)

Pettit, G.R. *et al.*, *J.O.C.*, 1962, **27**, 4566, (*synth*)

Dyneson, E. *et al.*, *J.C.S.(B)*, 1968, 15, (*ms*)

Cotton, F.A. *et al.*, *J.A.C.S.*, 1970, **92**, 294, (*cryst struct*)

Tanaka, Y. *et al.*, *Chem. Pharm. Bull.*, 1974, **22**, 2546, (*synth, ir*)

De Christopher, P.J. *et al.*, *J.O.C.*, 1974, **39**, 3525, (*synth, ir, pmr*)

Differding, E. *et al.*, *Synlett*, 1991, 187, (*synth, use*)

Padova, A. *et al.*, *Tetrahedron*, 1996, **52**, 263, (*use*)