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

CAS Registry Number: 2618-96-4
Type of Compound Code(s): PM5990
$PhSO_2NHSO_2Ph$

Molecular Formula: $C_{12}H_{11}NO_4S_2$
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. (C_6H_6 or MeOH aq.)
Melting Point: Mp 157.5-158.5° (156-157°)
Solubility: Sol. H_2O
pKa Value: pK_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: $C_{12}H_{10}FNO_4S_2$
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)*