



>>Entry Name: 4-Methyldiphenyl sulfide

Synonym(s): 1-Methyl-4-(phenylthio)benzene, 9Cl. Phenyl *p*-tolyl sulfide, 8Cl. (4-Methylphenyl)phenyl sulfide

CAS Registry Number: 3699-01-2

Molecular Formula: C₁₃H₁₂S

Molecular Weight: 200.304

Accurate Mass: 200.06597

Percentage Composition: C 77.95%; H 6.04%; S 16.01%

Use/Importance: Shows insecticidal props.

Physical Description: Oil

Melting Point: Fp 15.7°

Boiling Point: Bp 311.5°. Bp₁₁ 167.5°

Density: d^{15.7} 1.09

Rare Chemicals Library: S81159-9

>>Derivative: S-Oxide, (±)-form

Synonym(s): 4-Methyldiphenyl sulfoxide. 1-Methyl-4-(phenylsulfinyl)benzene, 9Cl. Phenyl *p*-tolyl sulfoxide, 8Cl. (4-Methylphenyl)phenyl sulfoxide

CAS Registry Number: 948-56-1

Molecular Formula: C₁₃H₁₂OS

Molecular Weight: 216.303

Accurate Mass: 216.060885

Percentage Composition: C 72.19%; H 5.59%; O 7.40%; S 14.82%

Melting Point: Mp 73°

>>Derivative: S,S-Dioxide

Synonym(s): 4-Methyldiphenyl sulfone. 1-Methyl-4-(phenylsulfonyl)benzene, 9Cl. Phenyl *p*-tolyl sulfone, 8Cl. (4-Methylphenyl)phenyl sulfone

CAS Registry Number: 640-57-3

Molecular Formula: C₁₃H₁₂O₂S

Molecular Weight: 232.303

Accurate Mass: 232.0558

Percentage Composition: C 67.22%; H 5.21%; O 13.77%; S 13.80%

Physical Description: Plates (EtOH)

Melting Point: Mp 124.5°

Rare Chemicals Library: S45050-2

References:

- Bourgeois, E., *Ber.*, 1895, **28**, 2312-2330, (*synth*)
Courtot, C. *et al.*, *C. R. Hebd. Seances Acad. Sci.*, 1934, **199**, 557, (*oxide, synth*)
Burton, H. *et al.*, *J.C.S.*, 1948, 528, (*oxide, synth*)
Leandri, G. *et al.*, *J.C.S.*, 1957, 1356, (*oxide, uv*)
Kekkawa, S. *et al.*, *Nippon Kagaku Zasshi*, 1971, **92**, 440; *CA*, **76**, 33706k, (*nmr, ms*)
Bunnett, J.P. *et al.*, *J.O.C.*, 1974, **39**, 3173, (*synth*)
Olah, G.A. *et al.*, *Synthesis*, 1974, 342, (*dioxide, synth*)
Khodaar, A.I. *et al.*, *Z. Naturforsch., B*, 1978, **33**, 403, (*dioxide, synth*)
Efremov, Yu.A. *et al.*, *Zh. Org. Khim.*, 1980, **16**, 101, (*dioxide, ms*)
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