



>>Entry Name: 4,4'-Dimethyldiphenyl sulfide

Synonym(s): 1,1'-Thiobis[4-methylbenzene], 9Cl. *p*-Tolyl sulfide, 8Cl. Di-*p*-tolyl sulfide. Bis(4-methylphenyl) sulfide

CAS Registry Number: 620-94-0

Structure by analogy with 2,2'-Dimethyldiphenyl sulfide, [FBP42-S](#)

Molecular Formula: C₁₄H₁₄S

Molecular Weight: 214.331

Accurate Mass: 214.08162

Percentage Composition: C 78.46%; H 6.58%; S 14.96%

Use/Importance: Has insecticidal props.

Physical Description: Needles (EtOH)

Melting Point: Mp 57.3°

Boiling Point: Bp₁₁ 179°

>>Derivative: S-Oxide

Synonym(s): 4,4'-Dimethyldiphenyl sulfoxide. 1,1'-Sulfinylbis[4-methylbenzene], 9Cl. *p*-Tolyl sulfoxide, 8Cl. Di-*p*-tolyl sulfoxide. Bis(4-methylphenyl) sulfoxide

CAS Registry Number: 1774-35-2

Molecular Formula: C₁₄H₁₄OS

Molecular Weight: 230.33

Accurate Mass: 230.076535

Percentage Composition: C 73.01%; H 6.13%; O 6.95%; S 13.92%

Physical Description: Cryst. (petrol)

Melting Point: Mp 95°

Aldrich: T4280-3

>>Derivative: S,S-Dioxide

Synonym(s): 4,4'-Dimethyldiphenyl sulfone. 1,1'-Sulfonylbis[4-methylbenzene], 9Cl. *p*-Tolyl sulfone, 8Cl. Di-*p*-tolyl sulfone. Bis(4-methylphenyl) sulfone

CAS Registry Number: 599-66-6

Molecular Formula: C₁₄H₁₄O₂S

Molecular Weight: 246.329

Accurate Mass: 246.07145

Percentage Composition: C 68.26%; H 5.73%; O 12.99%; S 13.02%

Physical Description: Prisms (C₆H₆)

Melting Point: Mp 158°

Boiling Point: Bp₁₄ 405°

Aldrich: 39239-1

References:

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Cumper, C.W.N. *et al.*, *J.C.S.(A)*, 1966, 239, (*uv, oxide, dioxide*)
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Still, I. *et al.*, *Synthesis*, 1974, 468, (*oxide*)
Fedoezzhina, R.P., *Zh. Obshch. Khim.*, 1974, **44**, 877; 1351, (*oxide*)
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