

# Phosphorothioic acid, O,O-dimethyl O-[3-methyl-4-(methylsulfonyl)phenyl] ester

**Other names:** m-Cresol, 4-(methylsulfonyl)-, O-ester with O,O-dimethyl phosphorothioate  
Fenthion sulfone  
Phosphorothioic acid, O,O-dimethyl O-[4-(methylsulfonyl)-m-tolyl] ester  
O,O-Dimethyl O-(4-(methylsulfonyl)-m-tolyl) phosphorothioate  
O,O-Dimethyl O-((4-methylthio)-m-tolyl)phosphorothioate sulfone  
Fenthione sulfone

**Inchi:** InChI=1S/C10H15O5PS2/c1-8-7-9(15-16(17,13-2)14-3)5-6-10(8)18(4,11)12/h5-7H,1-4H3

**InchiKey:** ZDHYERRNXRANLI-UHFFFAOYSA-N

**Formula:** C10H15O5PS2

**SMILES:** COP(=S)(OC)Oc1ccc(S(C)(=O)=O)c(C)c1

**Mol. weight [g/mol]:** 310.33

**CAS:** 3761-42-0

## Physical Properties

Property code	Value	Unit	Source
log10ws	1.39		Crippen Method
logp	2.295		Crippen Method
mcvol	210.510	ml/mol	McGowan Method

## Sources

**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

**Crippen Method:** [https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**McGowan Method:** <http://link.springer.com/article/10.1007/BF02311772>

**NIST Webbook:** <http://webbook.nist.gov/cgi/cbook.cgi?ID=C3761420&Units=SI>

## Legend

**log10ws:** Log10 of Water solubility in mol/l

**logp:** Octanol/Water partition coefficient

**mcvol:** McGowan's characteristic volume

Latest version available from:

<https://www.cheméo.com/cid/117-886-9/Phosphorothioic-acid-O-O-dimethyl-O-3-methyl-4-methylsulfonyl-phenyl-ester>

Generated by Cheméo on 2024-04-28 08:55:32.181013486 +0000 UTC m=+16583781.101590798.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.