

# Phosphonothioic dichloride, phenyl-

<b>Other names:</b>	Benzenephosphorus thiodichloride NSC 62217 Phenyl phosphorus thiodichloride Phenylphosphonothionodichloridate Phenylphosphonothioyl dichloride Phenylthionophosphonic dichloride Phenylthiophosphonyl dichloride Phosphine sulfide, dichlorophenyl- Phosphonodichloridothioic acid, phenyl- Phosphonothioic dichloride, P-phenyl- UN 2799 benzene phosphorus thiodichloride dichloro(phenyl)phosphine sulphide dichlorophenylphosphine sulfide phenylphosphonothioic dichloride
<b>Inchi:</b>	InChI=1S/C6H5Cl2PS/c7-9(8,10)6-4-2-1-3-5-6/h1-5H
<b>InchiKey:</b>	SXIWNIQDOJKDGB-UHFFFAOYSA-N
<b>Formula:</b>	C6H5Cl2PS
<b>SMILES:</b>	S=P(Cl)(Cl)c1ccccc1
<b>Mol. weight [g/mol]:</b>	211.05
<b>CAS:</b>	3497-00-5

## Physical Properties

Property code	Value	Unit	Source
log10ws	-3.39		Crippen Method
logp	3.099		Crippen Method
mcvol	132.930	ml/mol	McGowan Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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dvisc	0.0036340	Paxs	303.16	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0029570	Paxs	313.12	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0024390	Paxs	323.25	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0020820	Paxs	332.85	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0017910	Paxs	343.00	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0015560	Paxs	353.19	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0013560	Paxs	363.25	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0011990	Paxs	374.75	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0010820	Paxs	383.20	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0009720	Paxs	393.26	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide

dvisc	0.0008720	Paxs	403.85	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0007980	Paxs	412.65	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide
dvisc	0.0007290	Paxs	423.40	Density, Viscosity, and Vapor Pressure of Dichlorophenylphosphine Sulfide

## Sources

**Density, Viscosity, and Vapor Pressure  
of Dichlorophenylphosphine Sulfide:  
McGowan Method:**

<https://www.doi.org/10.1021/je600566v>

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

**NIST Webbook:**

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C3497005&Units=SI>

**Crippen Method:**

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

**Crippen Method:**

[https://www.cheméo.com/doc/models/crippen\\_log10ws](https://www.cheméo.com/doc/models/crippen_log10ws)

## Legend

**dvisc:** Dynamic viscosity  
**log10ws:** Log10 of Water solubility in mol/l  
**logp:** Octanol/Water partition coefficient  
**mcvol:** McGowan's characteristic volume

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