

Phosphorodiamidous chloride, tetramethyl-

Other names:	Bis(dimethylamino)chlorophosphine Bis(dimethylamino)phosphorus chloride Chlorobis(dimethylamino)phosphine Phosphine, chlorobis(dimethylamino)- Tetramethyldiaminochlorophosphine Tetramethylphosphorodiamidous chloride (CH ₃) ₂ N) ₂ PCl N,N,N',N'-Tetramethylphosphorodiamidous chloride
Inchi:	InChI=1S/C4H12ClN2P/c1-6(2)8(5)7(3)4/h1-4H3
InchiKey:	MAJFLEHNBOUSIY-UHFFFAOYSA-N
Formula:	C ₄ H ₁₂ ClN ₂ P
SMILES:	CN(C)P(Cl)N(C)C
Mol. weight [g/mol]:	154.58
CAS:	3348-44-5

Physical Properties

Property code	Value	Unit	Source
hvap	45.90 ± 1.20	kJ/mol	NIST Webbook
ie	7.60	eV	NIST Webbook
ie	8.25	eV	NIST Webbook
log10ws	2.38		Crippen Method
logp	1.575		Crippen Method
mcvol	119.880	ml/mol	McGowan Method
tf	240.00	K	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	457.00	K	96.80	NIST Webbook
tbrp	337.00	K	1.30	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3348445&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
tbrp:	Boiling point at reduced pressure
tf:	Normal melting (fusion) point

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