

# Pentamethylphosphonic diamide

<b>Other names:</b>	Phosphonic diamide, pentamethyl- N,N,N',N'-Tetramethylmethylphosphonamide Phosphorodiamidous acid, tetramethyl-, methyl ester N,N,N',N'-Tetramethyl methanephosphorodiamide
<b>Inchi:</b>	InChI=1S/C5H15N2OP/c1-6(2)9(5,8)7(3)4/h1-5H3
<b>InchiKey:</b>	YRWJRJCUZYGLPN-UHFFFAOYSA-N
<b>Formula:</b>	C5H15N2OP
<b>SMILES:</b>	CN(C)P(C)(=O)N(C)C
<b>Mol. weight [g/mol]:</b>	150.16
<b>CAS:</b>	2511-17-3

## Physical Properties

Property code	Value	Unit	Source
affp	951.30	kJ/mol	NIST Webbook
basg	918.90	kJ/mol	NIST Webbook
ie	7.80	eV	NIST Webbook
ie	7.20	eV	NIST Webbook
log10ws	-1.33		Crippen Method
logp	0.933		Crippen Method
mcvol	127.600	ml/mol	McGowan Method

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C2511173&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C2511173&amp;Units=SI</a>

## Legend

**affp:** Proton affinity

<b>basg:</b>	Gas basicity
<b>ie:</b>	Ionization energy
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume

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