

Hexamethylphosphoramide

Other names:	ENT 50,882 ENT 50882 Eastman Inhibitor HPT HEMPA HMPA HMPT HMPTA HPT Hexametapol Hexamethylfosforamid Hexamethylorthophosphoric triamide Hexamethylphosphotriamide Hexamethyltriamidophosphate Hexmethylphosphoramid N,N,N',N',N'',N''-Hexamethylphosphoric triamide N,N,N',N',N'',N''-Hexamethylphosphorotriamide N,N,N',N',N'',N'-Hexamethylphosphorotriamide NSC 113131 NSC 7967 Phosphoric acid hexamethyltriamide Phosphoric hexamethyltriamide Phosphoryl hexamethyltriamide Tri(dimethylamino)phosphineoxide Tris(dimethylamino)phosphorus oxide Tris-(dimethylamid) kyseliny fosforecne hexamethylphosphoric acid triamide hexamethylphosphoric triamide hexamethylphosphorotriamide phosphoric triamide, hexamethyl- phosphoric tris(dimethylamide) tris(dimethylamino)phosphine oxide
Inchi:	InChI=1S/C6H18N3OP/c1-7(2)11(10,8(3)4)9(5)6/h1-6H3
InchiKey:	GNOIPBMMFNIUFM-UHFFFAOYSA-N
Formula:	C6H18N3OP
SMILES:	CN(C)P(=O)(N(C)C)N(C)C
Mol. weight [g/mol]:	179.20
CAS:	680-31-9

Physical Properties

Property code	Value	Unit	Source
affp	958.60	kJ/mol	NIST Webbook
basg	928.70	kJ/mol	NIST Webbook
ie	7.89	eV	NIST Webbook
ie	7.82	eV	NIST Webbook
ie	7.90	eV	NIST Webbook
ie	8.26	eV	NIST Webbook
log10ws	-1.31		Crippen Method
logp	0.779		Crippen Method
mcvol	151.670	ml/mol	McGowan Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	321.30	J/molxK	298.15	NIST Webbook
rho1	1028.54	kg/m ³	288.15	Volumetric properties of the (water + hexamethylphosphoric triamide) mixtures from (288.15 to 308.15) K
rho1	1024.33	kg/m ³	293.15	Volumetric properties of the (water + hexamethylphosphoric triamide) mixtures from (288.15 to 308.15) K
rho1	1020.03	kg/m ³	298.15	Volumetric properties of the (water + hexamethylphosphoric triamide) mixtures from (288.15 to 308.15) K

rho1	1015.86	kg/m3	303.15	Volumetric properties of the (water + hexamethylphosphoric triamide) mixtures from (288.15 to 308.15) K
rho1	1011.61	kg/m3	308.15	Volumetric properties of the (water + hexamethylphosphoric triamide) mixtures from (288.15 to 308.15) K

Sources

Volumetric properties of the (water + hexamethylphosphoric triamide) mixtures from (288.15 to 308.15) K:

NIST Webbook:

Crippen Method:

Crippen Method:

<https://www.doi.org/10.1016/j.jct.2010.04.003>

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

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C680319&Units=SI>

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

https://www.cheméo.com/doc/models/crippen_log10ws

Legend

affp:	Proton affinity
basg:	Gas basicity
cpl:	Liquid phase heat capacity
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
rho1:	Liquid Density

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