

Cyanamide, dimethyl-

Other names:	N-Cyano-N-methylmethanamine Dimethylcyanamide (CH ₃) ₂ NC«equiv»N Dimethylkyanamid
Inchi:	InChI=1S/C3H6N2/c1-5(2)3-4/h1-2H3
InchiKey:	OAGOUCJGXNLJNL-UHFFFAOYSA-N
Formula:	C ₃ H ₆ N ₂
SMILES:	CN(C)C#N
Mol. weight [g/mol]:	70.09
CAS:	1467-79-4

Physical Properties

Property code	Value	Unit	Source
affp	852.10	kJ/mol	NIST Webbook
basg	821.40	kJ/mol	NIST Webbook
gf	218.34	kJ/mol	Joback Method
hf	127.16	kJ/mol	Joback Method
hfus	8.05	kJ/mol	Joback Method
hvap	34.79	kJ/mol	Joback Method
ie	9.00	eV	NIST Webbook
ie	9.44	eV	NIST Webbook
log10ws	-9.99e-03		Crippen Method
logp	0.029		Crippen Method
mcvol	64.490	ml/mol	McGowan Method
pc	4255.16	kPa	Joback Method
rinpol	726.00		NIST Webbook
rinpol	729.00		NIST Webbook
tb	435.20	K	NIST Webbook
tb	436.70	K	NIST Webbook
tc	574.05	K	Joback Method
tf	231.20 ± 0.30	K	NIST Webbook
tf	232.05 ± 0.20	K	NIST Webbook
vc	0.247	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	110.19	J/mol×K	382.56	Joback Method
cpg	116.51	J/mol×K	414.48	Joback Method
cpg	122.52	J/mol×K	446.39	Joback Method
cpg	128.23	J/mol×K	478.31	Joback Method
cpg	133.65	J/mol×K	510.22	Joback Method
cpg	138.79	J/mol×K	542.14	Joback Method
cpg	143.67	J/mol×K	574.05	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1467794&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

affp:	Proton affinity
basg:	Gas basicity
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
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
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume

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