

Methane, diazo-

Other names:	Azimethylene Diazomethane Acomethylene Diazirine Diazonium methylide
Inchi:	InChI=1S/CH2N2/c1-3-2/h1H2
InchiKey:	YXHKONLOYHBTNS-UHFFFAOYSA-N
Formula:	CH2N2
SMILES:	C=[N+]=[N-]
Mol. weight [g/mol]:	42.04
CAS:	334-88-3

Physical Properties

Property code	Value	Unit	Source
affp	858.90	kJ/mol	NIST Webbook
basg	826.70	kJ/mol	NIST Webbook
hf	215.00	kJ/mol	NIST Webbook
hf	206.00 ± 9.60	kJ/mol	NIST Webbook
ie	9.00 ± 0.00	eV	NIST Webbook
ie	9.03 ± 0.05	eV	NIST Webbook
ie	9.00	eV	NIST Webbook
ie	9.00 ± 0.00	eV	NIST Webbook
ie	9.20 ± 0.30	eV	NIST Webbook
log10ws	-1.88		Crippen Method
logp	-0.083		Crippen Method
mcvol	36.310	ml/mol	McGowan Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C334883&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

Legend

affp:	Proton affinity
basg:	Gas basicity
hf:	Enthalpy of formation at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume

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