

Hydrogen azide

Other names:	Azoimide Diazoimide HN3 Hydrazoic acid Hydronitric acid Stickstoffwasserstoffsaeure Triazoic acid
Inchi:	InChI=1S/HN3/c1-3-2/h1H
InchiKey:	JUINSXZKUKVTMD-UHFFFAOYSA-N
Formula:	HN3
SMILES:	[N-]=[N+]=N
Mol. weight [g/mol]:	43.03
CAS:	7782-79-8

Physical Properties

Property code	Value	Unit	Source
affp	756.00	kJ/mol	NIST Webbook
basg	723.50	kJ/mol	NIST Webbook
ie	10.72 ± 0.02	eV	NIST Webbook
ie	10.74 ± 0.01	eV	NIST Webbook
ie	10.72	eV	NIST Webbook
ie	10.72 ± 0.02	eV	NIST Webbook
ie	10.74	eV	NIST Webbook
ie	10.70	eV	NIST Webbook
log10ws	-6.66		Crippen Method
logp	0.875		Crippen Method
mcvol	32.200	ml/mol	McGowan Method
ripol	1213.00		NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$

Coeff. A	1.33050e+01
Coeff. B	-2.25466e+03
Coeff. C	-4.96900e+01
Temperature range (K), min.	194.15
Temperature range (K), max.	308.85

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7782798&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

affp:	Proton affinity
basg:	Gas basicity
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pvap:	Vapor pressure
ripol:	Polar retention indices

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