

1,2-Cyclohexanediamine

Other names:	1,2-Diaminocyclohexane 1,2-Diaminocyclohexane,c&t Cyclohexanediamine1,2-cyclohexanediamine DACH DCH-99 Diaminocyclohexane cyclohex-1,2-ylenediamine
Inchi:	InChI=1S/C6H14N2/c7-5-3-1-2-4-6(5)8/h5-6H,1-4,7-8H2
InchiKey:	SSJXIUAEKJCMH-UHFFFAOYSA-N
Formula:	C6H14N2
SMILES:	NC1CCCCC1N
Mol. weight [g/mol]:	114.19
CAS:	694-83-7

Physical Properties

Property code	Value	Unit	Source
gf	149.28	kJ/mol	Joback Method
hf	-65.61	kJ/mol	Joback Method
hfus	14.60	kJ/mol	Joback Method
hvap	50.35	kJ/mol	Joback Method
log10ws	-1.32		Crippen Method
logp	0.215		Crippen Method
mvol	104.500	ml/mol	McGowan Method
pc	4397.41	kPa	Joback Method
rinpol	972.00		NIST Webbook
tb	496.62	K	Joback Method
tc	730.03	K	Joback Method
tf	327.04	K	Joback Method
vc	0.361	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	250.11	J/mol×K	496.62	Joback Method

cpg	266.28	J/mol×K	535.52	Joback Method
cpg	281.50	J/mol×K	574.42	Joback Method
cpg	295.80	J/mol×K	613.32	Joback Method
cpg	309.20	J/mol×K	652.22	Joback Method
cpg	321.72	J/mol×K	691.13	Joback Method
cpg	333.38	J/mol×K	730.03	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	365.20	K	2.40	NIST Webbook

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C694837&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume

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