1,3-Dicyclohexylurea

Other names: Urea, N,N'-dicyclohexyl-
Urea, 1,3-dicyclohexyl-
N,N'-Dicyclohexylurea
Inchi: InChI=1S/C13H24N2O/c16-13(14-11-7-3-1-4-8-11)15-12-9-5-2-6-10-12/h11-12H,1-10H2
InchiKey: ADFXKUOMJKEIND-UHFFFAOYSA-N
Formula: C13H24N2O
SMILES: O=C(NC1CCCCC1)NC1CCCCC1
Mol. weight [g/mol]: 224.34
CAS: 2387-23-7

Physical Properties

Property code	Value	Unit	Source
gf	157.34	kJ/mol	Joback Method
hf	-208.65	kJ/mol	Joback Method
hfus	24.89	kJ/mol	Joback Method
hvap	65.01	kJ/mol	Joback Method
log10ws	-4.41		Crippen Method
logp	2.951		Crippen Method
mcvol	193.840	ml/mol	McGowan Method
pc	2584.59	kPa	Joback Method
tb	690.15	K	Joback Method
tc	921.88	K	Joback Method
tf	406.28	K	Joback Method
vc	0.706	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	591.50	J/mol×K	690.15	Joback Method
cpg	613.14	J/mol×K	728.77	Joback Method
cpg	633.16	J/mol×K	767.39	Joback Method
cpg	651.63	J/mol×K	806.02	Joback Method
cpg	668.59	J/mol×K	844.64	Joback Method
cpg	684.13	J/mol×K	883.26	Joback Method

cpg	698.28	J/mol×K	921.88	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2387237&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

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
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume