Cyclohexene,1-cyclohexyl-

Inchi: InChI=1S/C12H20/c1-3-7-11(8-4-1)12-9-5-2-6-10-12/h7,12H,1-6,8-10H2
InchiKey: RFFCUDDJJDOFLS-UHFFFAOYSA-N
Formula: C12H20
SMILES: C1=C(C2CCCCC2)CCCC1
Mol. weight [g/mol]: 164.29
CAS: 3282-54-0

Physical Properties

Property code	Value	Unit	Source
gf	127.10	kJ/mol	Joback Method
hf	-115.72	kJ/mol	Joback Method
hfus	10.27	kJ/mol	Joback Method
hvap	44.43	kJ/mol	Joback Method
ie	8.30 ± 0.01	eV	NIST Webbook
log10ws	-4.25		Crippen Method
logp	4.067		Crippen Method
mcvol	153.920	ml/mol	McGowan Method
pc	2752.67	kPa	Joback Method
tb	521.87	K	Joback Method
tc	757.67	K	Joback Method
tf	257.28	K	Joback Method
vc	0.560	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	368.53	J/mol×K	521.87	Joback Method
cpg	473.13	J/mol×K	718.37	Joback Method
cpg	455.07	J/mol×K	679.07	Joback Method
cpg	435.63	J/mol×K	639.77	Joback Method
cpg	414.77	J/mol×K	600.47	Joback Method
cpg	392.42	J/mol×K	561.17	Joback Method
cpg	489.87	J/mol×K	757.67	Joback Method
dvisc	0.0002266	Pa×s	521.87	Joback Method

dvisc	0.0003110	Pa×s	477.77	Joback Method
dvisc	0.0004552	Pa×s	433.67	Joback Method
dvisc	0.0007262	Pa×s	389.57	Joback Method
dvisc	0.0013053	Pa×s	345.48	Joback Method
dvisc	0.0027853	Pa×s	301.38	Joback Method
dvisc	0.0077070	Pa×s	257.28	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3282540&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
dvisc:	Dynamic viscosity
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume