Cyclohexane, 1,3-dimethyl-2-methylene-, trans-

Other names: trans-1,3-Dimethyl-2-methylenecyclohexane
Inchi: InChI=1S/C9H16/c1-7-5-4-6-8(2)9(7)3/h7-8H,3-6H2,1-2H3/t7-,8-/m0/s1
InchiKey: UTQSTOKTRPNZHE-YUMQZZPRSA-N
Formula: C9H16
SMILES: C=C1C(C)CCCC1C
Mol. weight [g/mol]: 124.22
CAS: 20348-74-7

Physical Properties

Property code	Value	Unit	Source
gf	94.72	kJ/mol	Joback Method
hf	-110.87	kJ/mol	Joback Method
hfus	10.81	kJ/mol	Joback Method
hvap	35.91	kJ/mol	Joback Method
log10ws	-2.85		Crippen Method
logp	2.999		Crippen Method
mcvol	122.510	ml/mol	McGowan Method
pc	2796.51	kPa	Joback Method
tb	390.77 ± 0.15	K	NIST Webbook
tc	619.71	K	Joback Method
tf	215.31 ± 0.05	K	NIST Webbook
tf	215.37 ± 0.02	K	NIST Webbook
vc	0.456	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	241.69	J/mol×K	419.36	Joback Method
cpg	258.94	J/mol×K	452.75	Joback Method
cpg	275.44	J/mol×K	486.14	Joback Method
cpg	291.21	J/mol×K	519.53	Joback Method
cpg	306.26	J/mol×K	552.93	Joback Method
cpg	320.59	J/mol×K	586.32	Joback Method
cpg	334.23	J/mol×K	619.71	Joback Method

dvisc	0.0022507	Pa×s	208.01	Joback Method
dvisc	0.0012179	Pa×s	243.23	Joback Method
dvisc	0.0007698	Pa×s	278.46	Joback Method
dvisc	0.0005394	Pa×s	313.69	Joback Method
dvisc	0.0004061	Pa×s	348.91	Joback Method
dvisc	0.0003221	Pa×s	384.13	Joback Method
dvisc	0.0002656	Pa×s	419.36	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C20348747&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
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