Cyclooctanemethanol

Other names: Cyclooctylmethanol
Inchi: InChI=1S/C9H18O/c10-8-9-6-4-2-1-3-5-7-9/h9-10H,1-8H2
InchiKey: ZHPBLHYKDKSZCQ-UHFFFAOYSA-N
Formula: C9H18O
SMILES: OCC1CCCCCCC1
Mol. weight [g/mol]: 142.24
CAS: 3637-63-6

Physical Properties

Property code	Value	Unit	Source
gf	-111.67	kJ/mol	Joback Method
hf	-339.32	kJ/mol	Joback Method
hfus	10.79	kJ/mol	Joback Method
hvap	53.08	kJ/mol	Joback Method
log10ws	-2.51		Crippen Method
logp	2.339		Crippen Method
mcvol	132.680	ml/mol	McGowan Method
pc	3322.01	kPa	Joback Method
tb	525.59	K	Joback Method
tc	727.59	K	Joback Method
tf	252.35	K	Joback Method
vc	0.475	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	321.73	J/mol×K	525.59	Joback Method
cpg	339.21	J/mol×K	559.26	Joback Method
cpg	355.80	J/mol×K	592.92	Joback Method
cpg	371.52	J/mol×K	626.59	Joback Method
cpg	386.37	J/mol×K	660.26	Joback Method
cpg	400.38	J/mol×K	693.92	Joback Method
cpg	413.55	J/mol×K	727.59	Joback Method
dvisc	0.1054772	Pa×s	252.35	Joback Method

dvisc	0.0132169	Pa×s	297.89	Joback Method
dvisc	0.0028729	Pa×s	343.43	Joback Method
dvisc	0.0008927	Pa×s	388.97	Joback Method
dvisc	0.0003544	Pa×s	434.51	Joback Method
dvisc	0.0001677	Pa×s	480.05	Joback Method
dvisc	0.0000903	Pa×s	525.59	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3637636&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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