8-Oxabicyclo[5.1.0]octane

Other names:	Cycloheptane, 1,2-epoxy-
	Cycloheptene epoxide
	Cycloheptene oxide
	Epoxycycloheptane
	1,2-Epoxycycloheptane
	cis-1,2-Epoxycycloheptane
Inchi:	InChI=1S/C7H12O/c1-2-4-6-7(8-6)5-3-1/h6-7H,1-5H2
InchiKey:	MLOZFLXCWGERSM-UHFFFAOYSA-N
Formula:	C7H12O
SMILES:	C1CCC2OC2CC1
Mol. weight [g/mol]:	112.17
CAS:	286-45-3

Physical Properties

Property code	Value	Unit	Source
chl	-4272.10 ± 3.10	kJ/mol	NIST Webbook
gf	19.24	kJ/mol	Joback Method
hf	-152.30 ± 3.10	kJ/mol	NIST Webbook
hfl	-197.50 ± 3.10	kJ/mol	NIST Webbook
hfus	13.93	kJ/mol	Joback Method
hvap	45.20 ± 0.40	kJ/mol	NIST Webbook
hvap	45.20	kJ/mol	NIST Webbook
log10ws	-1.85		Crippen Method
logp	1.718		Crippen Method
mcvol	93.640	ml/mol	McGowan Method
pc	3960.52	kPa	Joback Method
tb	408.53	K	Joback Method
tc	620.71	K	Joback Method
tf	224.06	K	Joback Method
vc	0.346	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	189.08	J/mol×K	408.53	Joback Method
cpg	205.70	J/mol×K	443.89	Joback Method
cpg	221.26	J/mol×K	479.26	Joback Method
cpg	235.82	J/mol×K	514.62	Joback Method
cpg	249.44	J/mol×K	549.98	Joback Method
cpg	262.16	J/mol×K	585.35	Joback Method
cpg	274.04	J/mol×K	620.71	Joback Method
dvisc	0.0018676	Pa×s	224.06	Joback Method
dvisc	0.0013582	Pa×s	254.81	Joback Method
dvisc	0.0010578	Pa×s	285.55	Joback Method
dvisc	0.0008649	Pa×s	316.29	Joback Method
dvisc	0.0007328	Pa×s	347.04	Joback Method
dvisc	0.0006379	Pa×s	377.78	Joback Method
dvisc	0.0005670	Pa×s	408.53	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C286453&Units=SI

Legend

chl: Standard liquid enthalpy of combustion
cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfl: Liquid phase 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