Glycidaldehyde

Other names: 2,3-epoxypropionaldehyde
Inchi: InChI=1S/C3H4O2/c4-1-3-2-5-3/h1,3H,2H2
InchiKey: IWYRWIUNAVNFPE-UHFFFAOYSA-N
Formula: C3H4O2
SMILES: O=CC1CO1
Mol. weight [g/mol]: 72.06
CAS: 765-34-4

Physical Properties

Property code	Value	Unit	Source
gf	-150.51	kJ/mol	Joback Method
hf	-250.03	kJ/mol	Joback Method
hfus	11.93	kJ/mol	Joback Method
hvap	33.42	kJ/mol	Joback Method
log10ws	0.55		Crippen Method
logp	-0.416		Crippen Method
mcvol	49.710	ml/mol	McGowan Method
pc	5818.28	kPa	Joback Method
tb	350.39	K	Joback Method
tc	541.92	K	Joback Method
tf	210.08	K	Joback Method
vc	0.199	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	86.00	J/mol×K	350.39	Joback Method
cpg	92.66	J/mol×K	382.31	Joback Method
cpg	98.89	J/mol×K	414.23	Joback Method
cpg	104.71	J/mol×K	446.16	Joback Method
cpg	110.16	J/mol×K	478.08	Joback Method
cpg	115.25	J/mol×K	510.00	Joback Method
cpg	119.99	J/mol×K	541.92	Joback Method
dvisc	0.0011435	Pa×s	210.08	Joback Method

dvisc	0.0009024	Pa×s	233.46	Joback Method
dvisc	0.0007435	Pa×s	256.85	Joback Method
dvisc	0.0006327	Pa×s	280.24	Joback Method
dvisc	0.0005520	Pa×s	303.62	Joback Method
dvisc	0.0004911	Pa×s	327.00	Joback Method
dvisc	0.0004438	Pa×s	350.39	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=C765344&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