tert-Butyl glycidyl ether

Other names:	(tert-Butoxymethyl)oxirane
	t-Butyl glycidyl ether
	Oxirane, [(1,1-dimethylethoxy)methyl]-
	t-Bge
	1,1-Dimethylethyl glycidyl ether
	Propane, 1-tert-butoxy-2,3-epoxy-
	((1,1-Dimethylethoxy)methyl)oxirane
	Ageflex TBGE
	Glycidyl tert-butyl ether
	2-(tert-Butoxymethyl)oxirane
	2,3-Epoxypropyl-t-butyl ether
	Oxirane, 2-((1,1-dimethylethoxy)methyl)-
Inchi:	InChI=1S/C7H14O2/c1-7(2,3)9-5-6-4-8-6/h6H,4-5H2,1-3H3
InchiKey:	SFJRUJUEMVAZLM-UHFFFAOYSA-N
Formula:	C7H14O2
SMILES:	CC(C)(C)OCC1CO1
Mol. weight [g/mol]:	130.18
CAS:	7665-72-7

Physical Properties

Property code	Value	Unit	Source
chl	-4387.00 ± 1.00	kJ/mol	NIST Webbook
chl	-4385.00 ± 3.00	kJ/mol	NIST Webbook
chl	-4387.00 ± 1.00	kJ/mol	NIST Webbook
gf	-119.47	kJ/mol	Joback Method
hf	-319.70 ± 2.70	kJ/mol	NIST Webbook
hf	-319.80 ± 3.00	kJ/mol	NIST Webbook
hf	-318.80 ± 1.10	kJ/mol	NIST Webbook
hf	-322.00 ± 2.00	kJ/mol	NIST Webbook
hf	-318.80 ± 1.10	kJ/mol	NIST Webbook
hfl	-369.00 ± 1.00	kJ/mol	NIST Webbook
hfl	-370.00 ± 3.00	kJ/mol	NIST Webbook
hfl	-369.00 ± 1.00	kJ/mol	NIST Webbook
hfus	13.77	kJ/mol	Joback Method
hvap	50.22 ± 0.35	kJ/mol	NIST Webbook
log10ws	-1.05		Crippen Method
logp	1.200		Crippen Method

mcvol	110.370	ml/mol	McGowan Method
pc	3202.78	kPa	Joback Method
tb	412.44	K	Joback Method
tc	603.87	K	Joback Method
tf	237.81	K	Joback Method
vc	0.412	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	233.77	J/mol×K	412.44	Joback Method
cpg	247.92	J/mol×K	444.34	Joback Method
cpg	261.29	J/mol×K	476.25	Joback Method
cpg	273.92	J/mol×K	508.15	Joback Method
cpg	285.83	J/mol×K	540.06	Joback Method
cpg	297.07	J/mol×K	571.96	Joback Method
cpg	307.66	J/mol×K	603.87	Joback Method
dvisc	0.0027913	Pa×s	237.81	Joback Method
dvisc	0.0017301	Pa×s	266.92	Joback Method
dvisc	0.0011781	Pa×s	296.02	Joback Method
dvisc	0.0008593	Pa×s	325.12	Joback Method
dvisc	0.0006602	Pa×s	354.23	Joback Method
dvisc	0.0005279	Pa×s	383.34	Joback Method
dvisc	0.0004357	Pa×s	412.44	Joback Method

Sources

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=C7665727&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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