Glycerol, 1-tert-butyl ether

Inchi: InChI=1S/C7H16O3/c1-7(2,3)10-5-6(9)4-8/h6,8-9H,4-5H2,1-3H3
InchiKey: JPWDLYMEUNBLIR-UHFFFAOYSA-N
Formula: C7H16O3
SMILES: CC(C)(C)OCC(O)CO
Mol. weight [g/mol]: 148.20

Physical Properties

Property code	Value	Unit	Source
gf	-370.18	kJ/mol	Joback Method
hf	-638.52	kJ/mol	Joback Method
hfus	12.31	kJ/mol	Joback Method
hvap	65.26	kJ/mol	Joback Method
log10ws	-0.59		Crippen Method
logp	0.155		Crippen Method
mcvol	127.100	ml/mol	McGowan Method
pc	3476.55	kPa	Joback Method
rinpol	1094.00		NIST Webbook
rinpol	1094.00		NIST Webbook
tb	562.67	K	Joback Method
tc	729.90	K	Joback Method
tf	299.94	K	Joback Method
vc	0.467	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	326.36	J/mol×K	562.67	Joback Method
cpg	336.33	J/mol×K	590.54	Joback Method
cpg	345.85	J/mol×K	618.41	Joback Method
cpg	354.94	J/mol×K	646.29	Joback Method
cpg	363.60	J/mol×K	674.16	Joback Method
cpg	371.86	J/mol×K	702.03	Joback Method
cpg	379.72	J/mol×K	729.90	Joback Method
dvisc	0.0651812	Pa×s	299.94	Joback Method

dvisc	0.0084535	Pa×s	343.73	Joback Method
dvisc	0.0017395	Pa×s	387.52	Joback Method
dvisc	0.0004934	Pa×s	431.30	Joback Method
dvisc	0.0001766	Pa×s	475.09	Joback Method
dvisc	0.0000751	Pa×s	518.88	Joback Method
dvisc	0.0000365	Pa×s	562.67	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U381758&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume