7-Norbornyl t-butyl ether

Other names: 7-tert-Butoxynorbornane
Inchi: InChI=1S/C11H20O/c1-11(2,3)12-10-8-4-5-9(10)7-6-8/h8-10H,4-7H2,1-3H3
InchiKey: XFWPUNKKVHXJGD-UHFFFAOYSA-N
Formula: C11H20O
SMILES: CC(C)(C)OC1C2CCC1CC2
Mol. weight [g/mol]: 168.28
CAS: 3391-07-9

Physical Properties

Property code	Value	Unit	Source
gf	41.27	kJ/mol	Joback Method
hf	-292.24	kJ/mol	Joback Method
hfus	13.26	kJ/mol	Joback Method
hvap	40.88	kJ/mol	Joback Method
log10ws	-3.04		Crippen Method
logp	2.990		Crippen Method
mcvol	150.000	ml/mol	McGowan Method
pc	2450.74	kPa	Joback Method
tb	483.35	K	Joback Method
tc	689.38	K	Joback Method
tf	266.50	K	Joback Method
vc	0.564	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	363.66	J/mol×K	483.35	Joback Method
cpg	384.63	J/mol×K	517.69	Joback Method
cpg	404.32	J/mol×K	552.03	Joback Method
cpg	422.79	J/mol×K	586.36	Joback Method
cpg	440.12	J/mol×K	620.70	Joback Method
cpg	456.36	J/mol×K	655.04	Joback Method
cpg	471.60	J/mol×K	689.38	Joback Method
dvisc	0.0017656	Pa×s	266.50	Joback Method

dvisc	0.0013237	Pa×s	302.64	Joback Method
dvisc	0.0010553	Pa×s	338.78	Joback Method
dvisc	0.0008789	Pa×s	374.93	Joback Method
dvisc	0.0007559	Pa×s	411.07	Joback Method
dvisc	0.0006662	Pa×s	447.21	Joback Method
dvisc	0.0005983	Pa×s	483.35	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	353.50 ± 0.50	K	2.00	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3391079&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

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
tbrp: Boiling point at reduced pressure
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume

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