

tert-Butyldecalin

Inchi:	InChI=1S/C14H26/c1-14(2,3)13-10-6-8-11-7-4-5-9-12(11)13/h11-13H,4-10H2,1-3H3
InchiKey:	WB LIUUUYEJA FDN-UHFFFAOYSA-N
Formula:	C14H26
SMILES:	CC(C)(C)C1CCCC2CCCCC21
Mol. weight [g/mol]:	194.36
CAS:	27193-30-2

Physical Properties

Property code	Value	Unit	Source
gf	135.23	kJ/mol	Joback Method
hf	-240.42	kJ/mol	Joback Method
hfus	13.54	kJ/mol	Joback Method
hvap	45.67	kJ/mol	Joback Method
log10ws	-4.51		Crippen Method
logp	4.639		Crippen Method
mcvol	186.400	ml/mol	McGowan Method
pc	2036.39	kPa	Joback Method
tb	542.38	K	Joback Method
tc	763.98	K	Joback Method
tf	267.52	K	Joback Method
vc	0.690	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	488.97	J/mol×K	542.38	Joback Method
cpg	515.38	J/mol×K	579.31	Joback Method
cpg	540.09	J/mol×K	616.25	Joback Method
cpg	563.17	J/mol×K	653.18	Joback Method
cpg	584.71	J/mol×K	690.11	Joback Method
cpg	604.80	J/mol×K	727.04	Joback Method
cpg	623.52	J/mol×K	763.98	Joback Method
cpl	352.30	J/mol×K	313.00	NIST Webbook
dvisc	0.0054070	Pa×s	267.52	Joback Method

dvisc	0.0024569	Pa×s	313.33	Joback Method
dvisc	0.0013652	Pa×s	359.14	Joback Method
dvisc	0.0008665	Pa×s	404.95	Joback Method
dvisc	0.0006032	Pa×s	450.76	Joback Method
dvisc	0.0004489	Pa×s	496.57	Joback Method
dvisc	0.0003512	Pa×s	542.38	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C27193302&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

cp_g:	Ideal gas heat capacity
cp_l:	Liquid phase 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

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