

«alpha»-n-Butyldecalin

Inchi:	InChI=1S/C14H26/c1-2-3-7-12-9-6-10-13-8-4-5-11-14(12)13/h12-14H,2-11H2,1H3
InchiKey:	SVAKAMBIIAHLSL-UHFFFAOYSA-N
Formula:	C14H26
SMILES:	CCCCC1CCCC2CCCCC12
Mol. weight [g/mol]:	194.36
CAS:	92369-80-7

Physical Properties

Property code	Value	Unit	Source
gf	132.39	kJ/mol	Joback Method
hf	-231.67	kJ/mol	Joback Method
hfus	20.96	kJ/mol	Joback Method
hvap	46.96	kJ/mol	Joback Method
log10ws	-4.75		Crippen Method
logp	4.783		Crippen Method
mcvol	186.400	ml/mol	McGowan Method
pc	2001.91	kPa	Joback Method
tb	545.61	K	Joback Method
tc	753.90	K	Joback Method
tf	265.10	K	Joback Method
vc	0.701	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	614.98	J/mol×K	753.90	Joback Method
cpg	486.63	J/mol×K	545.61	Joback Method
cpg	596.73	J/mol×K	719.18	Joback Method
cpg	577.29	J/mol×K	684.47	Joback Method
cpg	556.61	J/mol×K	649.75	Joback Method
cpg	534.64	J/mol×K	615.04	Joback Method
cpg	511.33	J/mol×K	580.32	Joback Method
cpl	356.90	J/mol×K	311.00	NIST Webbook
cpl	361.90	J/mol×K	313.00	NIST Webbook

dvisc	0.0004665	Pa×s	498.86	Joback Method
dvisc	0.0005986	Pa×s	452.11	Joback Method
dvisc	0.0008136	Pa×s	405.36	Joback Method
dvisc	0.0011979	Pa×s	358.60	Joback Method
dvisc	0.0019806	Pa×s	311.85	Joback Method
dvisc	0.0039102	Pa×s	265.10	Joback Method
dvisc	0.0003794	Pa×s	545.61	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C92369807&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
cpl:	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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