Naphthalene, 2-butyldecahydro-

Other names:	2-n-Butyldecahydronaphthalene
	3-n-Butylbicyclo(4.4.0)decane
	3-butylbicyclo[4.4.0]decane
Inchi:	InChI=1S/C14H26/c1-2-3-6-12-9-10-13-7-4-5-8-14(13)11-12/h12-14H,2-11H2,1H3
InchiKey:	VYMIQGUNEIJWAR-UHFFFAOYSA-N
Formula:	C14H26
SMILES:	CCCCC1CCC2CCCCC2C1
Mol. weight [g/mol]:	194.36
CAS:	6305-52-8

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
rinpol	1432.00		NIST Webbook
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	486.63	J/mol×K	545.61	Joback Method
cpg	511.33	J/mol×K	580.32	Joback Method
cpg	534.64	J/mol×K	615.04	Joback Method
cpg	556.61	J/mol×K	649.75	Joback Method
cpg	577.29	J/mol×K	684.47	Joback Method

cpg	596.73	J/mol×K	719.18	Joback Method
cpg	614.98	J/mol×K	753.90	Joback Method
dvisc	0.0039102	Pa×s	265.10	Joback Method
dvisc	0.0019806	Pa×s	311.85	Joback Method
dvisc	0.0011979	Pa×s	358.60	Joback Method
dvisc	0.0008136	Pa×s	405.36	Joback Method
dvisc	0.0005986	Pa×s	452.11	Joback Method
dvisc	0.0004665	Pa×s	498.86	Joback Method
dvisc	0.0003794	Pa×s	545.61	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6305528&Units=SI

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