Heptadecane, 9-(2-cyclohexylethyl)-

Other names:	9-(2-Cyclohexylethyl)heptadecane
	1-Cyclohexyl-3-n-octylundecane
	9-(2'-Cyclohexylethyl)heptadecane
	Cyclohexane, (3-octylundecyl)-
Inchi:	InChI=1S/C25H50/c1-3-5-7-9-11-14-18-24(19-15-12-10-8-6-4-2)22-23-25-20-16-13-17-21
InchiKey:	XILMXSAQVLYDBO-UHFFFAOYSA-N
Formula:	C25H50
SMILES:	CCCCCCCCC(CCCCCCCC)CCC1CCCCC1
Mol. weight [g/mol]:	350.66
CAS:	25446-35-9

Physical Properties

Property code	Value	Unit	Source
gf	181.63	kJ/mol	Joback Method
hf	-510.29	kJ/mol	Joback Method
hfus	48.82	kJ/mol	Joback Method
hvap	71.28	kJ/mol	Joback Method
log10ws	-9.70		Crippen Method
logp	9.464		Crippen Method
mcvol	352.250	ml/mol	McGowan Method
pc	862.51	kPa	Joback Method
tb	790.51	K	Joback Method
tc	974.21	K	Joback Method
tf	363.89	K	Joback Method
vc	1.363	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1152.87	J/mol×K	790.51	Joback Method
cpg	1177.15	J/mol×K	821.13	Joback Method
cpg	1200.14	J/mol×K	851.74	Joback Method
cpg	1221.88	J/mol×K	882.36	Joback Method
cpg	1242.42	J/mol×K	912.98	Joback Method

cpg	1261.82	J/mol×K	943.60	Joback Method
cpg	1280.12	J/mol×K	974.21	Joback Method
dvisc	0.0031872	Pa×s	363.89	Joback Method
dvisc	0.0008954	Pa×s	434.99	Joback Method
dvisc	0.0003594	Pa×s	506.10	Joback Method
dvisc	0.0001806	Pa×s	577.20	Joback Method
dvisc	0.0001056	Pa×s	648.30	Joback Method
dvisc	0.0000686	Pa×s	719.41	Joback Method
dvisc	0.0000482	Pa×s	790.51	Joback Method
hvapt	88.60	kJ/mol	501.50	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C25446359&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
hvapt: Enthalpy of vaporization at a given temperature
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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