

Cyclohexane, (1-octylnonyl)-

Other names:	9-Cyclohexylheptadecane
Inchi:	InChI=1S/C23H46/c1-3-5-7-9-11-14-18-22(23-20-16-13-17-21-23)19-15-12-10-8-6-4-2/h2
InchiKey:	QQUZVPOZCFYGDY-UHFFFAOYSA-N
Formula:	C23H46
SMILES:	CCCCCCCCC(CCCCCCCC)C1CCCCC1
Mol. weight [g/mol]:	322.61
CAS:	55124-77-1

Physical Properties

Property code	Value	Unit	Source
gf	164.79	kJ/mol	Joback Method
hf	-469.01	kJ/mol	Joback Method
hfus	43.64	kJ/mol	Joback Method
hvap	66.83	kJ/mol	Joback Method
log10ws	-8.86		Crippen Method
logp	8.684		Crippen Method
mcvol	324.070	ml/mol	McGowan Method
pc	968.68	kPa	Joback Method
tb	744.75	K	Joback Method
tc	925.77	K	Joback Method
tf	341.35	K	Joback Method
vc	1.250	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1150.95	J/molxK	925.77	Joback Method
cpg	1132.73	J/molxK	895.60	Joback Method
cpg	1113.46	J/molxK	865.43	Joback Method
cpg	1093.08	J/molxK	835.26	Joback Method
cpg	1071.55	J/molxK	805.09	Joback Method
cpg	1048.83	J/molxK	774.92	Joback Method
cpg	1024.87	J/molxK	744.75	Joback Method
dvisc	0.0041996	Paxs	341.35	Joback Method

dvisc	0.0000638	Paxs	744.75	Joback Method
dvisc	0.0000907	Paxs	677.52	Joback Method
dvisc	0.0001393	Paxs	610.28	Joback Method
dvisc	0.0002380	Paxs	543.05	Joback Method
dvisc	0.0004728	Paxs	475.82	Joback Method
dvisc	0.0011773	Paxs	408.58	Joback Method
hvapt	83.90	kJ/mol	474.00	NIST Webbook

Sources

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=C55124771&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws

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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