

Cyclohexane, 1,3-didecyl-

Other names:	1,3-Di-n-decylcyclohexane 1,3-didecylcyclohexane
Inchi:	InChI=1S/C26H52/c1-3-5-7-9-11-13-15-17-20-25-22-19-23-26(24-25)21-18-16-14-12-10
InchiKey:	CVGVPWAGZNTBSN-UHFFFAOYSA-N
Formula:	C26H52
SMILES:	CCCCCCCCCCC1CCCC(CCCCCCCCCC)C1
Mol. weight [g/mol]:	364.69
CAS:	55334-19-5

Physical Properties

Property code	Value	Unit	Source
gf	184.78	kJ/mol	Joback Method
hf	-545.99	kJ/mol	Joback Method
hfus	56.00	kJ/mol	Joback Method
hvap	73.59	kJ/mol	Joback Method
log10ws	-10.12		Crippen Method
logp	9.854		Crippen Method
mvol	366.340	ml/mol	McGowan Method
pc	797.08	kPa	Joback Method
rinpol	2634.00		NIST Webbook
tb	809.16	K	Joback Method
tc	993.64	K	Joback Method
tf	385.92	K	Joback Method
vc	1.423	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1219.56	J/molxK	809.16	Joback Method
cpg	1330.25	J/molxK	962.90	Joback Method
cpg	1310.61	J/molxK	932.15	Joback Method
cpg	1289.77	J/molxK	901.40	Joback Method
cpg	1267.68	J/molxK	870.65	Joback Method
cpg	1244.29	J/molxK	839.91	Joback Method

cpg	1348.74	J/molxK	993.64	Joback Method
dvisc	0.0000579	Paxs	809.16	Joback Method
dvisc	0.0000791	Paxs	738.62	Joback Method
dvisc	0.0001152	Paxs	668.08	Joback Method
dvisc	0.0001836	Paxs	597.54	Joback Method
dvisc	0.0003313	Paxs	527.00	Joback Method
dvisc	0.0007174	Paxs	456.46	Joback Method
dvisc	0.0020609	Paxs	385.92	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55334195&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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

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