

Cyclopentane, (2-hexyloctyl)-

Other names:	1-Cyclopentyl-2-n-hexyloctane 7-(Cyclopentylmethyl)tridecane
Inchi:	InChI=1S/C19H38/c1-3-5-7-9-13-18(14-10-8-6-4-2)17-19-15-11-12-16-19/h18-19H,3-17H
InchiKey:	XANJIFLJGFYUDD-UHFFFAOYSA-N
Formula:	C19H38
SMILES:	CCCCCCC(CCCCC)CC1CCCC1
Mol. weight [g/mol]:	266.50
CAS:	55044-77-4

Physical Properties

Property code	Value	Unit	Source
gf	143.21	kJ/mol	Joback Method
hf	-380.29	kJ/mol	Joback Method
hfus	35.38	kJ/mol	Joback Method
hvap	57.76	kJ/mol	Joback Method
log10ws	-7.19		Crippen Method
logp	7.124		Crippen Method
mvol	267.710	ml/mol	McGowan Method
pc	1227.70	kPa	Joback Method
tb	648.96	K	Joback Method
tc	826.50	K	Joback Method
tf	299.79	K	Joback Method
vc	1.034	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	775.73	J/molxK	648.96	Joback Method
cpg	798.46	J/molxK	678.55	Joback Method
cpg	820.10	J/molxK	708.14	Joback Method
cpg	840.68	J/molxK	737.73	Joback Method
cpg	860.25	J/molxK	767.32	Joback Method
cpg	878.85	J/molxK	796.91	Joback Method
cpg	896.52	J/molxK	826.50	Joback Method

dvisc	0.0057104	Paxs	299.79	Joback Method
dvisc	0.0018807	Paxs	357.98	Joback Method
dvisc	0.0008450	Paxs	416.18	Joback Method
dvisc	0.0004620	Paxs	474.38	Joback Method
dvisc	0.0002882	Paxs	532.57	Joback Method
dvisc	0.0001973	Paxs	590.77	Joback Method
dvisc	0.0001446	Paxs	648.96	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55044774&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
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
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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