Undecane, 1-cyclohexyl-3-(2-cyclohexylethyl)-

Other names:	1-Cyclohexyl-3-(2-cyclohexylethyl)hendecane
	1,5-Dicyclohexyl-3-n-octylpentane
	Cyclohexane, 1,1'-(3-octyl-1,5-pentanediyl)bis-
	1-Cyclohexyl-3-(2-cyclohexylethyl)undecane
Inchi:	InChI=1S/C25H48/c1-2-3-4-5-6-9-18-25(21-19-23-14-10-7-11-15-23)22-20-24-16-12-8-13
InchiKey:	GOJKWWYXSCQHJD-UHFFFAOYSA-N
Formula:	C25H48
SMILES:	CCCCCCCCC(CCC1CCCCC1)CCC1CCCCC1
Mol. weight [g/mol]:	348.65
CAS:	7225-69-6

Physical Properties

Property code	Value	Unit	Source
gf	206.08	kJ/mol	Joback Method
hf	-455.97	kJ/mol	Joback Method
hfus	40.65	kJ/mol	Joback Method
hvap	71.71	kJ/mol	Joback Method
log10ws	-9.35		Crippen Method
logp	9.074		Crippen Method
mcvol	341.390	ml/mol	McGowan Method
pc	976.56	kPa	Joback Method
tb	810.06	K	Joback Method
tc	1009.45	K	Joback Method
tf	233.15 ± 1.00	K	NIST Webbook
vc	1.296	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1153.76	J/mol×K	810.06	Joback Method
cpg	1179.42	J/mol×K	843.29	Joback Method
cpg	1203.46	J/mol×K	876.52	Joback Method
cpg	1225.96	J/mol×K	909.75	Joback Method
cpg	1246.98	J/mol×K	942.99	Joback Method

cpg	1266.59	J/mol×K	976.22	Joback Method
cpg	1284.85	J/mol×K	1009.45	Joback Method
dvisc	0.0037014	Pa×s	371.27	Joback Method
dvisc	0.0010008	Pa×s	444.40	Joback Method
dvisc	0.0003916	Pa×s	517.53	Joback Method
dvisc	0.0001933	Pa×s	590.66	Joback Method
dvisc	0.0001115	Pa×s	663.80	Joback Method
dvisc	0.0000717	Pa×s	736.93	Joback Method
dvisc	0.0000500	Pa×s	810.06	Joback Method
hvapt	95.20	kJ/mol	498.00	NIST Webbook

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=C7225696&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
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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