

Cyclopentene, 3-undecyl-

Other names: Undecane, 1-(2-cyclopenten-1-yl)-

1-Undecylcyclopent-2-ene

Hydnocarpyl hydrocarbon

3-n-Undecylcyclopentene

Inchi: InChI=1S/C16H30/c1-2-3-4-5-6-7-8-9-10-13-16-14-11-12-15-16/h11,14,16H,2-10,12-13,15H

InchiKey: ORDYQBBWOHTMIZ-UHFFFAOYSA-N

Formula: C16H30

SMILES: CCCCCCCCCCCC1C=CCC1

Mol. weight [g/mol]: 222.41

CAS: 24828-58-8

Physical Properties

Property code	Value	Unit	Source
gf	150.35	kJ/mol	Joback Method
hf	-255.31	kJ/mol	Joback Method
hfus	32.35	kJ/mol	Joback Method
hvap	51.76	kJ/mol	Joback Method
log10ws	-6.03		Crippen Method
logp	5.873		Crippen Method
mcvol	221.140	ml/mol	McGowan Method
pc	1552.45	kPa	Joback Method
tb	579.92	K	Joback Method
tc	759.52	K	Joback Method
tf	281.74	K	Joback Method
vc	0.859	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	583.42	J/molxK	579.92	Joback Method
cpg	604.15	J/molxK	609.85	Joback Method
cpg	623.89	J/molxK	639.79	Joback Method
cpg	642.67	J/molxK	669.72	Joback Method
cpg	660.53	J/molxK	699.65	Joback Method

cpg	677.51	J/mol×K	729.58	Joback Method
cpg	693.63	J/mol×K	759.52	Joback Method
dvisc	0.0042434	Paxs	281.74	Joback Method
dvisc	0.0017802	Paxs	331.44	Joback Method
dvisc	0.0009367	Paxs	381.13	Joback Method
dvisc	0.0005716	Paxs	430.83	Joback Method
dvisc	0.0003863	Paxs	480.53	Joback Method
dvisc	0.0002810	Paxs	530.22	Joback Method
dvisc	0.0002158	Paxs	579.92	Joback Method

Sources

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=C24828588&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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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