

2-Methyl-n-1-tridecene

Other names:	1-Tridecene, 2-methyl- 2-Methyl-1-tridecene
Inchi:	InChI=1S/C14H28/c1-4-5-6-7-8-9-10-11-12-13-14(2)3/h2,4-13H2,1,3H3
InchiKey:	VNBHQOHLCLRDN-UHFFFAOYSA-N
Formula:	C14H28
SMILES:	<chem>C=C(C)CCCCCCCCCCC</chem>
Mol. weight [g/mol]:	196.37
CAS:	18094-01-4

Physical Properties

Property code	Value	Unit	Source
gf	146.29	kJ/mol	Joback Method
hf	-216.65	kJ/mol	Joback Method
hfus	29.43	kJ/mol	Joback Method
hvap	46.17	kJ/mol	Joback Method
log10ws	-5.54		Crippen Method
logp	5.483		Crippen Method
mcvol	203.820	ml/mol	McGowan Method
pc	1580.97	kPa	Joback Method
rinpol	1386.00		NIST Webbook
rinpol	1386.00		NIST Webbook
tb	516.28	K	Joback Method
tc	681.02	K	Joback Method
tf	231.82	K	Joback Method
vc	0.801	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	486.39	J/molxK	516.28	Joback Method
cpg	504.30	J/molxK	543.74	Joback Method
cpg	521.48	J/molxK	571.19	Joback Method
cpg	537.97	J/molxK	598.65	Joback Method
cpg	553.77	J/molxK	626.11	Joback Method

cpg	568.92	J/mol×K	653.56	Joback Method
cpg	583.44	J/mol×K	681.02	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.55791e+01
Coeff. B	-4.76568e+03
Coeff. C	-8.16500e+01
Temperature range (K), min.	393.30
Temperature range (K), max.	545.80

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C18094014&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
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
pvap:	Vapor 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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