1,13-Tetradecadiene

Other names:	Tetradeca-1,13-diene
	Tetradecadiene-1,13
Inchi:	InChI=1S/C14H26/c1-3-5-7-9-11-13-14-12-10-8-6-4-2/h3-4H,1-2,5-14H2
InchiKey:	XMRSTLBCBDIKFI-UHFFFAOYSA-N
Formula:	C14H26
SMILES:	C=CCCCCCCCCCCC=C
Mol. weight [g/mol]:	194.36
CAS:	21964-49-8

Physical Properties

Property code	Value	Unit	Source
gf	242.68	kJ/mol	Joback Method
hf	-81.43	kJ/mol	Joback Method
hfus	29.46	kJ/mol	Joback Method
hvap	45.42	kJ/mol	Joback Method
log10ws	-5.39		Crippen Method
logp	5.259		Crippen Method
mcvol	199.520	ml/mol	McGowan Method
pc	1628.54	kPa	Joback Method
rinpol	1385.00		NIST Webbook
rinpol	1385.00		NIST Webbook
rinpol	1373.00		NIST Webbook
rinpol	1385.00		NIST Webbook
rinpol	1380.00		NIST Webbook
tb	513.08	K	Joback Method
tc	678.02	K	Joback Method
tf	244.02	K	Joback Method
vc	0.781	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	467.41	J/mol×K	513.08	Joback Method
cpg	484.63	J/mol×K	540.57	Joback Method

cpg	501.14	J/mol×K	568.06	Joback Method
cpg	516.95	J/mol×K	595.55	Joback Method
cpg	532.09	J/mol×K	623.04	Joback Method
cpg	546.59	J/mol×K	650.53	Joback Method
cpg	560.46	J/mol×K	678.02	Joback Method
dvisc	0.0047769	Pa×s	244.02	Joback Method
dvisc	0.0018415	Pa×s	288.86	Joback Method
dvisc	0.0009172	Pa×s	333.71	Joback Method
dvisc	0.0005388	Pa×s	378.55	Joback Method
dvisc	0.0003543	Pa×s	423.39	Joback Method
dvisc	0.0002525	Pa×s	468.24	Joback Method
dvisc	0.0001909	Pa×s	513.08	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	404.20	K	2.30	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.65575e+01
Coeff. B	-5.18082e+03
Coeff. C	-9.00450e+01
Temperature range (K), min.	408.48
Temperature range (K), max.	550.73

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=C21964498&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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