1-Pentadecene, 2-methyl-

Other names: 2-Methyl-1-pentadecene
2-Methylpentadec-1-ene
Inchi: InChI=1S/C16H32/c1-4-5-6-7-8-9-10-11-12-13-14-15-16(2)3/h2,4-15H2,1,3H3
InchiKey: FWQJRKLMXMTXDY-UHFFFAOYSA-N
Formula: C16H32
SMILES: C=C(C)CCCCCCCCCCCCC
Mol. weight [g/mol]: 224.43
CAS: 29833-69-0

Physical Properties

Property code	Value	Unit	Source
gf	163.13	kJ/mol	Joback Method
hf	-257.93	kJ/mol	Joback Method
hfus	34.61	kJ/mol	Joback Method
hvap	50.62	kJ/mol	Joback Method
log10ws	-6.37		Crippen Method
logp	6.264		Crippen Method
mcvol	232.000	ml/mol	McGowan Method
pc	1364.66	kPa	Joback Method
rinpol	1587.00		NIST Webbook
rinpol	1587.00		NIST Webbook
tb	562.04	K	Joback Method
tc	725.23	K	Joback Method
tf	254.36	K	Joback Method
vc	0.913	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	590.66	J/mol×K	562.04	Joback Method
cpg	609.62	J/mol×K	589.24	Joback Method
cpg	627.82	J/mol×K	616.44	Joback Method
cpg	645.26	J/mol×K	643.63	Joback Method
cpg	661.99	J/mol×K	670.83	Joback Method

cpg	678.01	J/mol×K	698.03	Joback Method
cpg	693.36	J/mol×K	725.23	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.53836e+01
Coeff. B	-4.96157e+03
Coeff. C	-8.81100e+01
Temperature range (K), min.	416.78
Temperature range (K), max.	580.71

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=C29833690&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/ci990307l

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