2-methyl-1-nonadecene

Inchi: InChI=1S/C20H40/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20(2)3/h2,4-19H2,1,3H
InchiKey: HVUWESKTPPGVAP-UHFFFAOYSA-N
Formula: C20H40
SMILES: C=C(C)CCCCCCCCCCCCCCCCC
Mol. weight [g/mol]: 280.53
CAS: 52254-50-9

Physical Properties

Property code	Value	Unit	Source
gf	196.81	kJ/mol	Joback Method
hf	-340.49	kJ/mol	Joback Method
hfus	44.97	kJ/mol	Joback Method
hvap	59.52	kJ/mol	Joback Method
log10ws	-8.05		Crippen Method
logp	7.824		Crippen Method
mcvol	288.360	ml/mol	McGowan Method
pc	1046.65	kPa	Joback Method
rinpol	1989.00		NIST Webbook
tb	653.56	K	Joback Method
tc	816.75	K	Joback Method
tf	299.44	K	Joback Method
vc	1.137	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	816.51	J/mol×K	653.56	Joback Method
cpg	837.14	J/mol×K	680.76	Joback Method
cpg	856.91	J/mol×K	707.96	Joback Method
cpg	875.84	J/mol×K	735.16	Joback Method
cpg	893.96	J/mol×K	762.36	Joback Method
cpg	911.30	J/mol×K	789.56	Joback Method
cpg	927.89	J/mol×K	816.75	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.48647e+01
Coeff. B	-5.19759e+03
Coeff. C	-9.91300e+01
Temperature range (K), min.	455.69
Temperature range (K), max.	643.20

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R205815&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
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