1-Pentacosene

Inchi: InChI=1S/C25H50/c1-3-5-7-9-11-13-15-17-19-21-23-25-24-22-20-18-16-14-12-10-8-6-4-2

InchiKey: BDWBGSCECOPTTH-UHFFFAOYSA-N

Formula: C25H50

SMILES: C=CCCCCCCCCCCCCCCCCCCCCCCC

Mol. weight [g/mol]: 350.66

CAS: 16980-85-1

Physical Properties

Property code	Value	Unit	Source
gf	247.46	kJ/mol	Joback Method
hf	-433.90	kJ/mol	Joback Method
hfus	59.23	kJ/mol	Joback Method
hvap	70.57	kJ/mol	Joback Method
log10ws	-10.14		Crippen Method
logp	9.775		Crippen Method
mcvol	358.810	ml/mol	McGowan Method
pc	782.00	kPa	Joback Method
rinpol	2492.00		NIST Webbook
rinpol	2496.00		NIST Webbook
rinpol	2488.00		NIST Webbook
rinpol	2486.00		NIST Webbook
rinpol	2496.00		NIST Webbook
rinpol	2483.70		NIST Webbook
rinpol	2492.00		NIST Webbook
rinpol	2492.00		NIST Webbook
ripol	2488.00		NIST Webbook
ripol	2488.00		NIST Webbook
tb	768.08	K	Joback Method
tc	941.27	K	Joback Method
tf	369.75	K	Joback Method
vc	1.417	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1246.59	J/mol×K	941.27	Joback Method
cpg	1228.63	J/mol×K	912.41	Joback Method
cpg	1209.78	J/mol×K	883.54	Joback Method
cpg	1190.02	J/mol×K	854.68	Joback Method
cpg	1169.29	J/mol×K	825.81	Joback Method
cpg	1147.55	J/mol×K	796.95	Joback Method
cpg	1124.75	J/mol×K	768.08	Joback Method
dvisc	0.0020492	Pa×s	369.75	Joback Method
dvisc	0.0000535	Pa×s	768.08	Joback Method
dvisc	0.0000737	Pa×s	701.69	Joback Method
dvisc	0.0001085	Pa×s	635.30	Joback Method
dvisc	0.0001749	Pa×s	568.91	Joback Method
dvisc	0.0003198	Pa×s	502.53	Joback Method
dvisc	0.0007028	Pa×s	436.14	Joback Method
hvapt	103.70	kJ/mol	550.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.33819e+01
Coeff. B	-4.09824e+03
Coeff. C	-2.00116e+02
Temperature range (K), min.	513.09
Temperature range (K), max.	707.92

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=C16980851&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
hvapt:	Enthalpy of vaporization at a given temperature
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume