2-Methyltetracosane

Inchi: InChI=1S/C25H52/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25(2)3
InchiKey: YNQOGIZOCQEUJR-UHFFFAOYSA-N
Formula: C25H52
SMILES: CCCCCCCCCCCCCCCCCCCCCCCC(C)C
Mol. weight [g/mol]: 352.68
CAS: 1560-78-7

Physical Properties

Property code	Value	Unit	Source
gf	157.18	kJ/mol	Joback Method
hf	-564.61	kJ/mol	Joback Method
hfus	56.98	kJ/mol	Joback Method
hvap	70.86	kJ/mol	Joback Method
log10ws	-10.05		Crippen Method
logp	9.854		Crippen Method
mcvol	363.110	ml/mol	McGowan Method
pc	767.34	kPa	Joback Method
rinpol	2456.00		NIST Webbook
rinpol	2465.00		NIST Webbook
rinpol	2462.10		NIST Webbook
rinpol	2465.00		NIST Webbook
rinpol	2465.10		NIST Webbook
rinpol	2464.00		NIST Webbook
rinpol	2464.00		NIST Webbook
rinpol	2462.00		NIST Webbook
rinpol	2460.00		NIST Webbook
rinpol	2463.00		NIST Webbook
tb	770.96	K	Joback Method
tc	944.71	K	Joback Method
tf	356.51	K	Joback Method
vc	1.429	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1276.97	J/mol×K	944.71	Joback Method
cpg	1151.89	J/mol×K	770.96	Joback Method
cpg	1175.34	J/mol×K	799.92	Joback Method
cpg	1197.69	J/mol×K	828.88	Joback Method
cpg	1218.99	J/mol×K	857.83	Joback Method
cpg	1239.27	J/mol×K	886.79	Joback Method
cpg	1258.59	J/mol×K	915.75	Joback Method
dvisc	0.0000463	Pa×s	770.96	Joback Method
dvisc	0.0027240	Pa×s	356.51	Joback Method
dvisc	0.0007960	Pa×s	425.58	Joback Method
dvisc	0.0003280	Pa×s	494.66	Joback Method
dvisc	0.0001679	Pa×s	563.73	Joback Method
dvisc	0.0000995	Pa×s	632.81	Joback Method
dvisc	0.0000654	Pa×s	701.88	Joback Method
hvapt	104.60	kJ/mol	547.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.46608e+01
Coeff. B	-5.13223e+03
Coeff. C	-1.59050e+02
Temperature range (K), min.	516.12
Temperature range (K), max.	707.99

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1560787&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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