

Eicosane, 2,6,10,14,19-pentamethyl-

Inchi:	InChI=1S/C25H52/c1-21(2)13-8-9-15-23(5)17-11-19-25(7)20-12-18-24(6)16-10-14-22(3)
InchiKey:	MLDHLQOKNLGQFD-UHFFFAOYSA-N
Formula:	C25H52
SMILES:	CC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]:	352.68
CAS:	55268-60-5

Physical Properties

Property code	Value	Unit	Source
gf	147.42	kJ/mol	Joback Method
hf	-585.73	kJ/mol	Joback Method
hfus	42.89	kJ/mol	Joback Method
hvap	69.30	kJ/mol	Joback Method
log10ws	-9.08		Crippen Method
logp	9.278		Crippen Method
mcvol	363.110	ml/mol	McGowan Method
pc	781.12	kPa	Joback Method
rinpol	2226.00		NIST Webbook
rinpol	2200.00		NIST Webbook
rinpol	2226.00		NIST Webbook
rinpol	2242.00		NIST Webbook
rinpol	2200.00		NIST Webbook
tb	769.20	K	Joback Method
tc	945.36	K	Joback Method
tf	296.51	K	Joback Method
vc	1.405	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1153.43	J/molxK	769.20	Joback Method
cpg	1177.26	J/molxK	798.56	Joback Method
cpg	1199.94	J/molxK	827.92	Joback Method
cpg	1221.49	J/molxK	857.28	Joback Method

cpg	1241.98	J/molxK	886.64	Joback Method
cpg	1261.43	J/molxK	916.00	Joback Method
cpg	1279.90	J/molxK	945.36	Joback Method
dvisc	0.0123062	Paxs	296.51	Joback Method
dvisc	0.0016321	Paxs	375.29	Joback Method
dvisc	0.0004363	Paxs	454.07	Joback Method
dvisc	0.0001723	Paxs	532.86	Joback Method
dvisc	0.0000864	Paxs	611.64	Joback Method
dvisc	0.0000508	Paxs	690.42	Joback Method
dvisc	0.0000332	Paxs	769.20	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55268605&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
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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