3,11-Dimethyltricosane

Other names: Tricosane, 3,11-dimethyl
Inchi: InChI=1S/C25H52/c1-5-7-8-9-10-11-12-13-15-19-22-25(4)23-20-17-14-16-18-21-24(3)6-
InchiKey: DOKZTNHNVIATRD-UHFFFAOYSA-N
Formula: C25H52
SMILES: CCCCCCCCCCCCC(C)CCCCCCCC(C)CC
Mol. weight [g/mol]: 352.68

Physical Properties

Property code	Value	Unit	Source
gf	154.74	kJ/mol	Joback Method
hf	-569.89	kJ/mol	Joback Method
hfus	53.46	kJ/mol	Joback Method
hvap	70.47	kJ/mol	Joback Method
log10ws	-9.80		Crippen Method
logp	9.710		Crippen Method
mcvol	363.110	ml/mol	McGowan Method
pc	770.75	kPa	Joback Method
rinpol	2405.00		NIST Webbook
rinpol	2410.00		NIST Webbook
rinpol	2405.00		NIST Webbook
tb	770.52	K	Joback Method
tc	944.69	K	Joback Method
tf	341.51	K	Joback Method
vc	1.423	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1152.28	J/mol×K	770.52	Joback Method
cpg	1175.79	J/mol×K	799.55	Joback Method
cpg	1198.20	J/mol×K	828.58	Joback Method
cpg	1219.55	J/mol×K	857.60	Joback Method
cpg	1239.86	J/mol×K	886.63	Joback Method
cpg	1259.20	J/mol×K	915.66	Joback Method

cpg	1277.59	J/mol×K	944.69	Joback Method
dvisc	0.0037128	Pa×s	341.51	Joback Method
dvisc	0.0009256	Pa×s	413.01	Joback Method
dvisc	0.0003477	Pa×s	484.51	Joback Method
dvisc	0.0001680	Pa×s	556.01	Joback Method
dvisc	0.0000958	Pa×s	627.52	Joback Method
dvisc	0.0000613	Pa×s	699.02	Joback Method
dvisc	0.0000426	Pa×s	770.52	Joback Method

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=R195392&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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