Dotriacontane, 2,6,10,14,19,23,27,31-octamethyl

Other names: 2,6,10,14,19,23,27,31-octamethyldotriacontane
Inchi: InChI=1S/C40H82/c1-33(2)19-13-23-37(7)27-17-31-39(9)29-15-25-35(5)21-11-12-22-36(
InchiKey: VZVGMMPGAFGVOS-UHFFFAOYSA-N
Formula: C40H82
SMILES: CC(C)CCCC(C)CCCC(C)CCCC(C)CCCCC(C)CCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]: 563.08

Physical Properties

Property code	Value	Unit	Source
gf	266.40	kJ/mol	Joback Method
hf	-911.17	kJ/mol	Joback Method
hfus	71.17	kJ/mol	Joback Method
hvap	101.53	kJ/mol	Joback Method
log10ws	-14.63		Crippen Method
logp	14.697		Crippen Method
mcvol	574.460	ml/mol	McGowan Method
pc	400.96	kPa	Joback Method
rinpol	3445.00		NIST Webbook
rinpol	3445.00		NIST Webbook
rinpol	3445.00		NIST Webbook
tb	1111.08	K	Joback Method
tc	1434.44	K	Joback Method
tf	420.56	K	Joback Method
vc	2.228	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2175.62	J/mol×K	1111.08	Joback Method
cpg	2331.60	J/mol×K	1380.54	Joback Method
cpg	2305.26	J/mol×K	1326.65	Joback Method
cpg	2276.93	J/mol×K	1272.76	Joback Method
cpg	2246.17	J/mol×K	1218.87	Joback Method
cpg	2212.54	J/mol×K	1164.97	Joback Method

cpg	2356.37	J/mol×K	1434.44	Joback Method
dvisc	0.0000023	Pa×s	1111.08	Joback Method
dvisc	0.0000036	Pa×s	995.99	Joback Method
dvisc	0.0000063	Pa×s	880.91	Joback Method
dvisc	0.0000134	Pa×s	765.82	Joback Method
dvisc	0.0000368	Pa×s	650.73	Joback Method
dvisc	0.0001562	Pa×s	535.65	Joback Method
dvisc	0.0014630	Pa×s	420.56	Joback Method

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=R213737&Units=SI

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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