

Dotriacontane, 2,6,10,14,18,22,26,30-octamethyl

Inchi: InChI=1S/C40H82/c1-11-34(4)20-13-22-36(6)24-15-26-38(8)28-17-30-40(10)32-18-31-33
InchiKey: OTWVBTPAKJZTME-UHFFFAOYSA-N
Formula: C40H82
SMILES: CCC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(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	3444.00		NIST Webbook
rinpol	3454.00		NIST Webbook
rinpol	3444.00		NIST Webbook
rinpol	3454.00		NIST Webbook
rinpol	3444.00		NIST Webbook
tb	1111.08	K	Joback Method
tc	1434.44	K	Joback Method
tf	420.56	K	Joback Method
vc	2.228	m ³ /kmol	Joback Method

Temperature Dependent Properties

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

cpg	2331.60	J/molxK	1380.54	Joback Method
cpg	2356.37	J/molxK	1434.44	Joback Method
dvisc	0.0014630	Paxs	420.56	Joback Method
dvisc	0.0001562	Paxs	535.65	Joback Method
dvisc	0.0000368	Paxs	650.73	Joback Method
dvisc	0.0000134	Paxs	765.82	Joback Method
dvisc	0.0000063	Paxs	880.91	Joback Method
dvisc	0.0000036	Paxs	995.99	Joback Method
dvisc	0.0000023	Paxs	1111.08	Joback Method

Sources

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=R213722&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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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