Hentriacontane, 2,6,10,14,18,22,26-heptamethyl

Inchi: InChI=1S/C38H78/c1-10-11-12-20-33(4)22-14-24-35(6)26-16-28-37(8)30-18-31-38(9)29-

InchiKey: HYWOCBILVMRQRY-UHFFFAOYSA-N

Formula: C38H78

SMILES: CCCCCC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)C

Mol. weight [g/mol]: 535.03

Physical Properties

Property code	Value	Unit	Source
gf	252.00	kJ/mol	Joback Method
hf	-864.61	kJ/mol	Joback Method
hfus	69.52	kJ/mol	Joback Method
hvap	97.47	kJ/mol	Joback Method
log10ws	-14.04		Crippen Method
logp	14.061		Crippen Method
mcvol	546.280	ml/mol	McGowan Method
pc	432.22	kPa	Joback Method
rinpol	3298.00		NIST Webbook
rinpol	3288.00		NIST Webbook
rinpol	3288.00		NIST Webbook
rinpol	3298.00		NIST Webbook
rinpol	3288.00		NIST Webbook
rinpol	3298.00		NIST Webbook
tb	1065.76	K	Joback Method
tc	1355.62	K	Joback Method
tf	413.02	K	Joback Method
vc	2.122	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2035.41	J/mol×K	1065.76	Joback Method
cpg	2182.07	J/mol×K	1307.31	Joback Method
cpg	2157.19	J/mol×K	1259.00	Joback Method
cpg	2130.38	J/mol×K	1210.69	Joback Method

cpg	2101.34	J/mol×K	1162.38	Joback Method
cpg	2069.78	J/mol×K	1114.07	Joback Method
cpg	2205.32	J/mol×K	1355.62	Joback Method
dvisc	0.0000035	Pa×s	1065.76	Joback Method
dvisc	0.0000055	Pa×s	956.97	Joback Method
dvisc	0.0000095	Pa×s	848.18	Joback Method
dvisc	0.0000196	Pa×s	739.39	Joback Method
dvisc	0.0000515	Pa×s	630.60	Joback Method
dvisc	0.0002034	Pa×s	521.81	Joback Method
dvisc	0.0016552	Pa×s	413.02	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=R213782&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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