3,7,15-trimethyl-pentatriacontane

Inchi: InChI=1S/C38H78/c1-6-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-24-27-31-37(4)32-
InchiKey: QBJBVGIHNZYYBW-UHFFFAOYSA-N
Formula: C38H78
SMILES: CCCCCCCCCCCCCCCCCCCCC(C)CCCCCCCC(C)CCCC(C)CC
Mol. weight [g/mol]: 535.03

Physical Properties

Property code	Value	Unit	Source
gf	261.76	kJ/mol	Joback Method
hf	-843.49	kJ/mol	Joback Method
hfus	83.61	kJ/mol	Joback Method
hvap	99.02	kJ/mol	Joback Method
log10ws	-15.00		Crippen Method
logp	14.637		Crippen Method
mcvol	546.280	ml/mol	McGowan Method
pc	426.53	kPa	Joback Method
rinpol	3636.00		NIST Webbook
rinpol	3636.00		NIST Webbook
rinpol	3637.00		NIST Webbook
rinpol	3637.00		NIST Webbook
rinpol	3637.00		NIST Webbook
tb	1067.52	K	Joback Method
tc	1377.25	K	Joback Method
tf	473.02	K	Joback Method
vc	2.146	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2035.18	J/mol×K	1067.52	Joback Method
cpg	2193.56	J/mol×K	1325.63	Joback Method
cpg	2166.59	J/mol×K	1274.01	Joback Method
cpg	2137.62	J/mol×K	1222.39	Joback Method
cpg	2106.31	J/mol×K	1170.76	Joback Method

cpg	2072.28	J/mol×K	1119.14	Joback Method
cpg	2218.90	J/mol×K	1377.25	Joback Method
dvisc	0.0000052	Pa×s	1067.52	Joback Method
dvisc	0.0000076	Pa×s	968.44	Joback Method
dvisc	0.0000121	Pa×s	869.35	Joback Method
dvisc	0.0000219	Pa×s	770.27	Joback Method
dvisc	0.0000472	Pa×s	671.19	Joback Method
dvisc	0.0001326	Pa×s	572.10	Joback Method
dvisc	0.0005738	Pa×s	473.02	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R272365&Units=SI
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

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