3,7,11,15-tetramethyl-tritriacontane

Inchi: InChI=1S/C37H76/c1-7-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-27-35(4)30-25-31
InchiKey: KLFUOQIKYGVIOC-UHFFFAOYSA-N
Formula: C37H76
SMILES: CCCCCCCCCCCCCCCCCCC(C)CCCC(C)CCCC(C)CCCC(C)CC
Mol. weight [g/mol]: 521.00

Physical Properties

Property code	Value	Unit	Source
gf	250.90	kJ/mol	Joback Method
hf	-828.13	kJ/mol	Joback Method
hfus	77.49	kJ/mol	Joback Method
hvap	96.40	kJ/mol	Joback Method
log10ws	-14.34		Crippen Method
logp	14.103		Crippen Method
mcvol	532.190	ml/mol	McGowan Method
pc	445.46	kPa	Joback Method
rinpol	3460.00		NIST Webbook
rinpol	3459.00		NIST Webbook
rinpol	3460.00		NIST Webbook
rinpol	3459.00		NIST Webbook
rinpol	3459.00		NIST Webbook
rinpol	3460.00		NIST Webbook
tb	1044.20	K	Joback Method
tc	1329.98	K	Joback Method
tf	446.75	K	Joback Method
vc	2.083	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1965.23	J/mol×K	1044.20	Joback Method
cpg	2114.11	J/mol×K	1282.35	Joback Method
cpg	2088.70	J/mol×K	1234.72	Joback Method
cpg	2061.38	J/mol×K	1187.09	Joback Method

cpg	2031.88	J/mol×K	1139.46	Joback Method
cpg	1999.92	J/mol×K	1091.83	Joback Method
cpg	2137.90	J/mol×K	1329.98	Joback Method
dvisc	0.0000055	Pa×s	1044.20	Joback Method
dvisc	0.0000082	Pa×s	944.62	Joback Method
dvisc	0.0000135	Pa×s	845.05	Joback Method
dvisc	0.0000251	Pa×s	745.47	Joback Method
dvisc	0.0000568	Pa×s	645.90	Joback Method
dvisc	0.0001729	Pa×s	546.32	Joback Method
dvisc	0.0008645	Pa×s	446.75	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R272310&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

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