4,8,12-Trimethyldotriacontane

Inchi: InChI=1S/C35H72/c1-6-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-28-34(4)30-
InchiKey: BTBIBLQFGOLTNC-UHFFFAOYSA-N
Formula: C35H72
SMILES: CCCCCCCCCCCCCCCCCCCCCC(C)CCCC(C)CCCC(C)CCC
Mol. weight [g/mol]: 492.95
CAS: 28171-02-0

Physical Properties

Property code	Value	Unit	Source
gf	236.50	kJ/mol	Joback Method
hf	-781.57	kJ/mol	Joback Method
hfus	75.84	kJ/mol	Joback Method
hvap	92.34	kJ/mol	Joback Method
log10ws	-13.75		Crippen Method
logp	13.467		Crippen Method
mcvol	504.010	ml/mol	McGowan Method
pc	482.19	kPa	Joback Method
rinpol	3320.00		NIST Webbook
rinpol	3320.00		NIST Webbook
tb	998.88	K	Joback Method
tc	1256.37	K	Joback Method
tf	439.21	K	Joback Method
vc	1.978	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1825.75	J/mol×K	998.88	Joback Method
cpg	1858.01	J/mol×K	1041.80	Joback Method
cpg	1887.94	J/mol×K	1084.71	Joback Method
cpg	1915.76	J/mol×K	1127.63	Joback Method
cpg	1941.65	J/mol×K	1170.54	Joback Method
cpg	1965.80	J/mol×K	1213.46	Joback Method
cpg	1988.40	J/mol×K	1256.37	Joback Method

dvisc	0.0009683	Pa×s	439.21	Joback Method
dvisc	0.0002197	Pa×s	532.49	Joback Method
dvisc	0.0000775	Pa×s	625.77	Joback Method
dvisc	0.0000359	Pa×s	719.05	Joback Method
dvisc	0.0000198	Pa×s	812.32	Joback Method
dvisc	0.0000124	Pa×s	905.60	Joback Method
dvisc	0.0000084	Pa×s	998.88	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C28171020&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