6,10,14-trimethyloctadecane

Inchi: InChI=1S/C21H44/c1-6-8-10-14-20(4)16-12-18-21(5)17-11-15-19(3)13-9-7-2/h19-21H,6-
InchiKey: WXLHDOWVIKZRAD-UHFFFAOYSA-N
Formula: C21H44
SMILES: CCCCCC(C)CCCC(C)CCCC(C)CCCC
Mol. weight [g/mol]: 296.57

Physical Properties

Property code	Value	Unit	Source
gf	118.62	kJ/mol	Joback Method
hf	-492.61	kJ/mol	Joback Method
hfus	39.58	kJ/mol	Joback Method
hvap	61.18	kJ/mol	Joback Method
log10ws	-7.89		Crippen Method
logp	8.006		Crippen Method
mcvol	306.750	ml/mol	McGowan Method
pc	970.49	kPa	Joback Method
rinpol	1928.00		NIST Webbook
tb	678.56	K	Joback Method
tc	844.93	K	Joback Method
tf	281.43	K	Joback Method
vc	1.194	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	901.77	J/mol×K	678.56	Joback Method
cpg	1002.74	J/mol×K	817.20	Joback Method
cpg	984.35	J/mol×K	789.47	Joback Method
cpg	965.09	J/mol×K	761.75	Joback Method
cpg	944.93	J/mol×K	734.02	Joback Method
cpg	923.83	J/mol×K	706.29	Joback Method
cpg	1020.29	J/mol×K	844.93	Joback Method
dvisc	0.0000683	Pa×s	678.56	Joback Method
dvisc	0.0001001	Pa×s	612.37	Joback Method

dvisc	0.0001610	Pa×s	546.18	Joback Method
dvisc	0.0002952	Pa×s	479.99	Joback Method
dvisc	0.0006570	Pa×s	413.81	Joback Method
dvisc	0.0019834	Pa×s	347.62	Joback Method
dvisc	0.0100687	Pa×s	281.43	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=R301092&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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