1-Tridecene, 4,8,12-trimethyl

Inchi: InChI=1S/C16H32/c1-6-9-15(4)12-8-13-16(5)11-7-10-14(2)3/h6,14-16H,1,7-13H2,2-5H3
InchiKey: DEQOCZHCEVDSLM-UHFFFAOYSA-N
Formula: C16H32
SMILES: C=CCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]: 224.43

Physical Properties

Property code	Value	Unit	Source
gf	164.36	kJ/mol	Joback Method
hf	-263.98	kJ/mol	Joback Method
hfus	25.35	kJ/mol	Joback Method
hvap	49.38	kJ/mol	Joback Method
log10ws	-5.65		Crippen Method
logp	5.831		Crippen Method
mcvol	232.000	ml/mol	McGowan Method
pc	1384.02	kPa	Joback Method
rinpol	1456.00		NIST Webbook
rinpol	1456.00		NIST Webbook
tb	560.84	K	Joback Method
tc	730.04	K	Joback Method
tf	223.32	K	Joback Method
vc	0.894	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	591.57	J/mol×K	560.84	Joback Method
cpg	611.43	J/mol×K	589.04	Joback Method
cpg	630.44	J/mol×K	617.24	Joback Method
cpg	648.63	J/mol×K	645.44	Joback Method
cpg	666.02	J/mol×K	673.64	Joback Method
cpg	682.64	J/mol×K	701.84	Joback Method
cpg	698.51	J/mol×K	730.04	Joback Method
dvisc	0.0197453	Pa×s	223.32	Joback Method

dvisc	0.0036777	Pa×s	279.57	Joback Method
dvisc	0.0012028	Pa×s	335.83	Joback Method
dvisc	0.0005421	Pa×s	392.08	Joback Method
dvisc	0.0002985	Pa×s	448.33	Joback Method
dvisc	0.0001877	Pa×s	504.59	Joback Method
dvisc	0.0001295	Pa×s	560.84	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R47116&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