Tridecane, 3,7,11-trimethyl

Inchi: InChI=1S/C16H34/c1-6-14(3)10-8-12-16(5)13-9-11-15(4)7-2/h14-16H,6-13H2,1-5H3
InchiKey: OKWGUZVUQHVSCA-UHFFFAOYSA-N
Formula: C16H34
SMILES: CCC(C)CCCC(C)CCCC(C)CC
Mol. weight [g/mol]: 226.44

Physical Properties

Property code	Value	Unit	Source
gf	76.52	kJ/mol	Joback Method
hf	-389.41	kJ/mol	Joback Method
hfus	26.63	kJ/mol	Joback Method
hvap	50.05	kJ/mol	Joback Method
log10ws	-5.79		Crippen Method
logp	6.055		Crippen Method
mcvol	236.300	ml/mol	McGowan Method
pc	1341.76	kPa	Joback Method
rinpol	1466.00		NIST Webbook
rinpol	1476.00		NIST Webbook
rinpol	1483.00		NIST Webbook
rinpol	1485.00		NIST Webbook
rinpol	1471.00		NIST Webbook
rinpol	1468.00		NIST Webbook
rinpol	1470.00		NIST Webbook
rinpol	1470.00		NIST Webbook
rinpol	1485.00		NIST Webbook
rinpol	1468.00		NIST Webbook
tb	564.16	K	Joback Method
tc	730.75	K	Joback Method
tf	225.08	K	Joback Method
vc	0.913	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	612.41	J/mol×K	564.16	Joback Method
cpg	632.67	J/mol×K	591.92	Joback Method
cpg	652.10	J/mol×K	619.69	Joback Method
cpg	670.73	J/mol×K	647.45	Joback Method
cpg	688.56	J/mol×K	675.22	Joback Method
cpg	705.63	J/mol×K	702.98	Joback Method
cpg	721.96	J/mol×K	730.75	Joback Method
dvisc	0.0217376	Pa×s	225.08	Joback Method
dvisc	0.0038875	Pa×s	281.59	Joback Method
dvisc	0.0012360	Pa×s	338.11	Joback Method
dvisc	0.0005456	Pa×s	394.62	Joback Method
dvisc	0.0002956	Pa×s	451.13	Joback Method
dvisc	0.0001836	Pa×s	507.65	Joback Method
dvisc	0.0001254	Pa×s	564.16	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=R12127&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