Triacontane, 5-methyl

Inchi: InChI=1S/C31H64/c1-4-6-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-
InchiKey: ISOFMGGSUGTXSI-UHFFFAOYSA-N
Formula: C31H64
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCCCC(C)CCCC
Mol. weight [g/mol]: 436.84

Physical Properties

Property code	Value	Unit	Source
gf	207.70	kJ/mol	Joback Method
hf	-688.45	kJ/mol	Joback Method
hfus	72.52	kJ/mol	Joback Method
hvap	84.21	kJ/mol	Joback Method
log10ws	-12.56		Crippen Method
logp	12.195		Crippen Method
mcvol	447.650	ml/mol	McGowan Method
pc	570.69	kPa	Joback Method
rinpol	3145.00		NIST Webbook
rinpol	3145.00		NIST Webbook
tb	908.24	K	Joback Method
tc	1122.22	K	Joback Method
tf	424.13	K	Joback Method
vc	1.766	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1550.16	J/mol×K	908.24	Joback Method
cpg	1675.10	J/mol×K	1086.56	Joback Method
cpg	1653.05	J/mol×K	1050.89	Joback Method
cpg	1629.63	J/mol×K	1015.23	Joback Method
cpg	1604.74	J/mol×K	979.57	Joback Method
cpg	1578.28	J/mol×K	943.90	Joback Method
cpg	1695.88	J/mol×K	1122.22	Joback Method
dvisc	0.0000191	Pa×s	908.24	Joback Method

dvisc	0.0000271	Pa×s	827.56	Joback Method
dvisc	0.0000415	Pa×s	746.87	Joback Method
dvisc	0.0000704	Pa×s	666.18	Joback Method
dvisc	0.0001384	Pa×s	585.50	Joback Method
dvisc	0.0003377	Pa×s	504.81	Joback Method
dvisc	0.0011568	Pa×s	424.13	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R283706&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