13-Methylheptatriacontane

Inchi: InChI=1S/C38H78/c1-4-6-8-10-12-14-16-17-18-19-20-21-22-23-24-25-26-27-29-31-33-35
InchiKey: XBGZSXCXMVDZHG-UHFFFAOYSA-N
Formula: C38H78
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCCC(C)CCCCCCCCCCCC
Mol. weight [g/mol]: 535.03
CAS: 56987-87-2

Physical Properties

Property code	Value	Unit	Source
gf	266.64	kJ/mol	Joback Method
hf	-832.93	kJ/mol	Joback Method
hfus	90.65	kJ/mol	Joback Method
hvap	99.79	kJ/mol	Joback Method
log10ws	-15.49		Crippen Method
logp	14.926		Crippen Method
mcvol	546.280	ml/mol	McGowan Method
pc	423.73	kPa	Joback Method
rinpol	3722.00		NIST Webbook
rinpol	3735.00		NIST Webbook
rinpol	3729.00		NIST Webbook
rinpol	3730.00		NIST Webbook
rinpol	3735.00		NIST Webbook
rinpol	3730.00		NIST Webbook
rinpol	3733.00		NIST Webbook
rinpol	3735.00		NIST Webbook
tb	1068.40	K	Joback Method
tc	1389.46	K	Joback Method
tf	503.02	K	Joback Method
vc	2.158	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2035.08	J/mol×K	1068.40	Joback Method

cpg	2200.09	J/mol×K	1335.95	Joback Method
cpg	2171.93	J/mol×K	1282.44	Joback Method
cpg	2141.75	J/mol×K	1228.93	Joback Method
cpg	2109.16	J/mol×K	1175.42	Joback Method
cpg	2073.73	J/mol×K	1121.91	Joback Method
cpg	2226.65	J/mol×K	1389.46	Joback Method
dvisc	0.0000063	Pa×s	1068.40	Joback Method
dvisc	0.0000089	Pa×s	974.17	Joback Method
dvisc	0.0000138	Pa×s	879.94	Joback Method
dvisc	0.0000235	Pa×s	785.71	Joback Method
dvisc	0.0000464	Pa×s	691.48	Joback Method
dvisc	0.0001137	Pa×s	597.25	Joback Method
dvisc	0.0003897	Pa×s	503.02	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C56987872&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

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