Triacontane, 11,20-didecyl-

Other names: 11,20-Di-n-decyltriacontane
Inchi: InChI=1S/C50H102/c1-5-9-13-17-21-25-31-37-43-49(44-38-32-26-22-18-14-10-6-2)47-41
InchiKey: HQHVJHJHPQGYKH-UHFFFAOYSA-N
Formula: C50H102
SMILES: CCCCCCCCCCC(CCCCCCCCCC)CCCCCCCCC(CCCCCCCCCC)CCCCCCCCCC
Mol. weight [g/mol]: 703.34
CAS: 55256-09-2

Physical Properties

Property code	Value	Unit	Source
gf	365.24	kJ/mol	Joback Method
hf	-1085.89	kJ/mol	Joback Method
hfus	118.21	kJ/mol	Joback Method
hvap	126.12	kJ/mol	Joback Method
log10ws	-20.27		Crippen Method
logp	19.463		Crippen Method
mcvol	715.360	ml/mol	McGowan Method
pc	277.59	kPa	Joback Method
tb	1342.52	K	Joback Method
tc	2149.07	K	Joback Method
tf	623.26	K	Joback Method
vc	2.824	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2891.24	J/mol×K	1342.52	Joback Method
cpg	3351.50	J/mol×K	2014.64	Joback Method
cpg	3234.17	J/mol×K	1880.22	Joback Method
cpg	3137.97	J/mol×K	1745.79	Joback Method
cpg	3054.41	J/mol×K	1611.37	Joback Method
cpg	2975.00	J/mol×K	1476.94	Joback Method
cpg	3498.46	J/mol×K	2149.07	Joback Method
dvisc	0.0000007	Pa×s	1342.52	Joback Method

dvisc	0.0000011	Pa×s	1222.64	Joback Method
dvisc	0.0000017	Pa×s	1102.77	Joback Method
dvisc	0.0000030	Pa×s	982.89	Joback Method
dvisc	0.0000061	Pa×s	863.01	Joback Method
dvisc	0.0000159	Pa×s	743.14	Joback Method
dvisc	0.0000594	Pa×s	623.26	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=C55256092&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume