Docosane, 3,7,11,15,19-pentamethyl

Inchi: InChI=1S/C27H56/c1-8-14-24(4)16-11-18-26(6)20-13-22-27(7)21-12-19-25(5)17-10-15-2
InchiKey: FHNVUYSTRHJXCS-UHFFFAOYSA-N
Formula: C27H56
SMILES: CCCC(C)CCCC(C)CCCC(C)CCCC(C)CCCC(C)CC
Mol. weight [g/mol]: 380.73

Physical Properties

Property code	Value	Unit	Source
gf	164.26	kJ/mol	Joback Method
hf	-627.01	kJ/mol	Joback Method
hfus	48.07	kJ/mol	Joback Method
hvap	73.76	kJ/mol	Joback Method
log10ws	-9.92		Crippen Method
logp	10.058		Crippen Method
mcvol	391.290	ml/mol	McGowan Method
pc	703.59	kPa	Joback Method
rinpol	2396.00		NIST Webbook
rinpol	2396.00		NIST Webbook
tb	814.96	K	Joback Method
tc	998.15	K	Joback Method
tf	319.05	K	Joback Method
vc	1.518	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1283.71	J/mol×K	814.96	Joback Method
cpg	1395.00	J/mol×K	967.62	Joback Method
cpg	1375.07	J/mol×K	937.09	Joback Method
cpg	1354.03	J/mol×K	906.55	Joback Method
cpg	1331.82	J/mol×K	876.02	Joback Method
cpg	1308.40	J/mol×K	845.49	Joback Method
cpg	1413.86	J/mol×K	998.15	Joback Method
dvisc	0.0000247	Pa×s	814.96	Joback Method

dvisc	0.0000376	Pa×s	732.31	Joback Method
dvisc	0.0000637	Pa×s	649.66	Joback Method
dvisc	0.0001261	Pa×s	567.00	Joback Method
dvisc	0.0003151	Pa×s	484.35	Joback Method
dvisc	0.0011472	Pa×s	401.70	Joback Method
dvisc	0.0081580	Pa×s	319.05	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R215322&Units=SI

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