3,7-dimethyl-heptacosane

Inchi: InChI=1S/C29H60/c1-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-25-29(4)27-2
InchiKey: JVMGJGOHLJIIKD-UHFFFAOYSA-N
Formula: C29H60
SMILES: CCCCCCCCCCCCCCCCCCCCCC(C)CCCC(C)CC
Mol. weight [g/mol]: 408.79

Physical Properties

Property code	Value	Unit	Source
gf	188.42	kJ/mol	Joback Method
hf	-652.45	kJ/mol	Joback Method
hfus	63.82	kJ/mol	Joback Method
hvap	79.37	kJ/mol	Joback Method
log10ws	-11.48		Crippen Method
logp	11.271		Crippen Method
mcvol	419.470	ml/mol	McGowan Method
pc	629.40	kPa	Joback Method
rinpol	2810.00		NIST Webbook
rinpol	2800.00		NIST Webbook
rinpol	2808.00		NIST Webbook
rinpol	2809.00		NIST Webbook
rinpol	2808.00		NIST Webbook
rinpol	2809.00		NIST Webbook
rinpol	2811.00		NIST Webbook
rinpol	2811.00		NIST Webbook
tb	862.04	K	Joback Method
tc	1057.60	K	Joback Method
tf	386.59	K	Joback Method
vc	1.647	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1415.45	J/mol×K	862.04	Joback Method
cpg	1441.54	J/mol×K	894.63	Joback Method

cpg	1466.21	J/mol×K	927.23	Joback Method
cpg	1489.54	J/mol×K	959.82	Joback Method
cpg	1511.59	J/mol×K	992.41	Joback Method
cpg	1532.42	J/mol×K	1025.01	Joback Method
cpg	1552.12	J/mol×K	1057.60	Joback Method
dvisc	0.0020179	Pa×s	386.59	Joback Method
dvisc	0.0005120	Pa×s	465.83	Joback Method
dvisc	0.0001936	Pa×s	545.07	Joback Method
dvisc	0.0000937	Pa×s	624.31	Joback Method
dvisc	0.0000534	Pa×s	703.56	Joback Method
dvisc	0.0000341	Pa×s	782.80	Joback Method
dvisc	0.0000236	Pa×s	862.04	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R404507&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