2,2-Dimethylicosane

Inchi: InChI=1S/C23H48/c1-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23(2,3)4/h5-22
InchiKey: VETCPNQQOCGTCK-UHFFFAOYSA-N
Formula: C23H48
SMILES: CCCCCCCCCCCCCCCCCCCC(C)(C)C
Mol. weight [g/mol]: 324.63

Physical Properties

Property code	Value	Unit	Source
gf	145.62	kJ/mol	Joback Method
hf	-526.80	kJ/mol	Joback Method
hfus	47.91	kJ/mol	Joback Method
hvap	65.50	kJ/mol	Joback Method
log10ws	-9.21		Crippen Method
logp	9.074		Crippen Method
mcvol	334.930	ml/mol	McGowan Method
pc	861.50	kPa	Joback Method
rinpol	2117.00		NIST Webbook
rinpol	2117.00		NIST Webbook
tb	722.41	K	Joback Method
tc	891.28	K	Joback Method
tf	351.39	K	Joback Method
vc	1.312	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1025.52	J/mol×K	722.41	Joback Method
cpg	1047.98	J/mol×K	750.55	Joback Method
cpg	1069.41	J/mol×K	778.70	Joback Method
cpg	1089.86	J/mol×K	806.84	Joback Method
cpg	1109.38	J/mol×K	834.99	Joback Method
cpg	1128.01	J/mol×K	863.13	Joback Method
cpg	1145.80	J/mol×K	891.28	Joback Method
dvisc	0.0029114	Pa×s	351.39	Joback Method

dvisc	0.0009155	Pa×s	413.23	Joback Method
dvisc	0.0003891	Pa×s	475.06	Joback Method
dvisc	0.0002014	Pa×s	536.90	Joback Method
dvisc	0.0001194	Pa×s	598.74	Joback Method
dvisc	0.0000781	Pa×s	660.57	Joback Method
dvisc	0.0000549	Pa×s	722.41	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R415062&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