

Decane, 2,3,5,8-tetramethyl-

Other names:	2,3,5,8-Tetramethyl-decane
Inchi:	InChI=1S/C14H30/c1-7-12(4)8-9-13(5)10-14(6)11(2)3/h11-14H,7-10H2,1-6H3
InchiKey:	XTIADNINQBIUNR-UHFFFAOYSA-N
Formula:	C14H30
SMILES:	CCC(C)CCC(C)CC(C)C(C)C
Mol. weight [g/mol]:	198.39
CAS:	192823-15-7

Physical Properties

Property code	Value	Unit	Source
gf	57.24	kJ/mol	Joback Method
hf	-353.41	kJ/mol	Joback Method
hfus	17.92	kJ/mol	Joback Method
hvap	45.21	kJ/mol	Joback Method
log10ws	-4.72		Crippen Method
logp	5.131		Crippen Method
mcvol	208.120	ml/mol	McGowan Method
pc	1562.28	kPa	Joback Method
rinpol	1318.00		NIST Webbook
tb	517.96	K	Joback Method
tc	689.78	K	Joback Method
tf	187.54	K	Joback Method
vc	0.795	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	506.52	J/molxK	517.96	Joback Method
cpg	526.25	J/molxK	546.60	Joback Method
cpg	545.15	J/molxK	575.23	Joback Method
cpg	563.26	J/molxK	603.87	Joback Method
cpg	580.60	J/molxK	632.50	Joback Method
cpg	597.18	J/molxK	661.14	Joback Method
cpg	613.03	J/molxK	689.78	Joback Method

dvisc	0.0618743	Paxs	187.54	Joback Method
dvisc	0.0071759	Paxs	242.61	Joback Method
dvisc	0.0018468	Paxs	297.68	Joback Method
dvisc	0.0007261	Paxs	352.75	Joback Method
dvisc	0.0003674	Paxs	407.82	Joback Method
dvisc	0.0002186	Paxs	462.89	Joback Method
dvisc	0.0001452	Paxs	517.96	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=C192823157&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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