

3,4,5,6-Tetramethyloctane, c

Inchi:	InChI=1S/C12H26/c1-7-9(3)11(5)12(6)10(4)8-2/h9-12H,7-8H2,1-6H3
InchiKey:	NADJQGPTQSFHIB-UHFFFAOYSA-N
Formula:	C12H26
SMILES:	CCC(C)C(C)C(C)C(C)CC
Mol. weight [g/mol]:	170.33

Physical Properties

Property code	Value	Unit	Source
gf	40.40	kJ/mol	Joback Method
hf	-312.13	kJ/mol	Joback Method
hfus	12.74	kJ/mol	Joback Method
hvap	40.75	kJ/mol	Joback Method
log10ws	-3.88		Crippen Method
logp	4.351		Crippen Method
mvol	179.940	ml/mol	McGowan Method
pc	1829.41	kPa	Joback Method
rinpol	1108.40		NIST Webbook
rinpol	1108.40		NIST Webbook
tb	472.20	K	Joback Method
tc	646.78	K	Joback Method
tf	165.00	K	Joback Method
vc	0.683	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	407.10	J/molxK	472.20	Joback Method
cpg	425.57	J/molxK	501.30	Joback Method
cpg	443.29	J/molxK	530.39	Joback Method
cpg	460.26	J/molxK	559.49	Joback Method
cpg	476.52	J/molxK	588.59	Joback Method
cpg	492.09	J/molxK	617.68	Joback Method
cpg	506.97	J/molxK	646.78	Joback Method
dvisc	0.0923748	Paxs	165.00	Joback Method

dvisc	0.0094069	Paxs	216.20	Joback Method
dvisc	0.0022975	Paxs	267.40	Joback Method
dvisc	0.0008827	Paxs	318.60	Joback Method
dvisc	0.0004420	Paxs	369.80	Joback Method
dvisc	0.0002619	Paxs	421.00	Joback Method
dvisc	0.0001738	Paxs	472.20	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=R173258&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cp_g:	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
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ 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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