

2,2-Dimethoxy-4,4-dimethylpentane

Inchi:	InChI=1S/C9H20O2/c1-8(2,3)7-9(4,10-5)11-6/h7H2,1-6H3
InchiKey:	GMAZEGHMGUXQHI-UHFFFAOYSA-N
Formula:	C9H20O2
SMILES:	COC(C)(CC(C)(C)C)OC
Mol. weight [g/mol]:	160.25
CAS:	72409-07-5

Physical Properties

Property code	Value	Unit	Source
gf	-179.42	kJ/mol	Joback Method
hf	-511.03	kJ/mol	Joback Method
hfus	6.61	kJ/mol	Joback Method
hvap	37.86	kJ/mol	Joback Method
log10ws	-2.13		Crippen Method
logp	2.432		Crippen Method
mcvol	149.410	ml/mol	McGowan Method
pc	2315.84	kPa	Joback Method
tb	443.70	K	Joback Method
tc	627.95	K	Joback Method
tf	240.49	K	Joback Method
vc	0.553	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	329.14	J/molxK	443.70	Joback Method
cpg	345.32	J/molxK	474.41	Joback Method
cpg	360.75	J/molxK	505.12	Joback Method
cpg	375.44	J/molxK	535.83	Joback Method
cpg	389.42	J/molxK	566.53	Joback Method
cpg	402.71	J/molxK	597.24	Joback Method
cpg	415.33	J/molxK	627.95	Joback Method
dvisc	0.0069724	Paxs	240.49	Joback Method
dvisc	0.0026520	Paxs	274.36	Joback Method

dvisc	0.0012475	Paxs	308.23	Joback Method
dvisc	0.0006813	Paxs	342.10	Joback Method
dvisc	0.0004149	Paxs	375.96	Joback Method
dvisc	0.0002743	Paxs	409.83	Joback Method
dvisc	0.0001931	Paxs	443.70	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C72409075&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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