

Cyclohexane, 1,2-dimethoxy-, trans-

Other names:	trans-1,2-Dimethoxycyclohexane (E)-1,2-Dimethoxycyclohexane
Inchi:	InChI=1S/C8H16O2/c1-9-7-5-3-4-6-8(7)10-2/h7-8H,3-6H2,1-2H3/t7-,8-/m1/s1
InchiKey:	BSGBGTJQKZSUTQ-HTQZYQBOSA-N
Formula:	C8H16O2
SMILES:	COC1CCCCC1OC
Mol. weight [g/mol]:	144.21
CAS:	29887-60-3

Physical Properties

Property code	Value	Unit	Source
gf	-176.78	kJ/mol	Joback Method
hf	-438.91	kJ/mol	Joback Method
hfus	11.76	kJ/mol	Joback Method
hvap	38.34	kJ/mol	Joback Method
ie	8.70	eV	NIST Webbook
ie	9.31	eV	NIST Webbook
log10ws	-1.46		Crippen Method
logp	1.590		Crippen Method
mcvol	124.460	ml/mol	McGowan Method
pc	2928.17	kPa	Joback Method
tb	442.16	K	Joback Method
tc	640.94	K	Joback Method
tf	227.52	K	Joback Method
vc	0.452	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	265.22	J/molxK	442.16	Joback Method
cpg	343.15	J/molxK	607.81	Joback Method
cpg	328.82	J/molxK	574.68	Joback Method
cpg	313.85	J/molxK	541.55	Joback Method
cpg	298.26	J/molxK	508.42	Joback Method

cpg	282.04	J/molxK	475.29	Joback Method
cpg	356.83	J/molxK	640.94	Joback Method
dvisc	0.0002135	Paxs	442.16	Joback Method
dvisc	0.0002703	Paxs	406.39	Joback Method
dvisc	0.0003581	Paxs	370.61	Joback Method
dvisc	0.0005038	Paxs	334.84	Joback Method
dvisc	0.0007692	Paxs	299.07	Joback Method
dvisc	0.0013175	Paxs	263.29	Joback Method
dvisc	0.0026727	Paxs	227.52	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C29887603&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

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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	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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