

Trans-1,4-cyclohexane-dimethanol diformate

Inchi:	InChI=1S/C10H16O4/c11-7-13-5-9-1-2-10(4-3-9)6-14-8-12/h7-10H,1-6H2
InchiKey:	ZZJUPUVRKUZDCB-UHFFFAOYSA-N
Formula:	C10H16O4
SMILES:	O=C OCC1CCC(COC=O)CC1
Mol. weight [g/mol]:	200.23
CAS:	86218-05-5

Physical Properties

Property code	Value	Unit	Source
gf	-358.98	kJ/mol	Joback Method
hf	-651.35	kJ/mol	Joback Method
hfus	21.52	kJ/mol	Joback Method
hvap	56.23	kJ/mol	Joback Method
log10ws	-1.14		Crippen Method
logp	1.139		Crippen Method
mvol	155.780	ml/mol	McGowan Method
pc	2793.56	kPa	Joback Method
tb	585.24	K	Joback Method
tc	787.23	K	Joback Method
tf	334.06	K	Joback Method
vc	0.598	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	407.22	J/molxK	585.24	Joback Method
cpg	478.59	J/molxK	753.56	Joback Method
cpg	465.95	J/molxK	719.90	Joback Method
cpg	452.49	J/molxK	686.23	Joback Method
cpg	438.21	J/molxK	652.57	Joback Method
cpg	423.12	J/molxK	618.90	Joback Method
cpg	490.40	J/molxK	787.23	Joback Method
dvisc	0.0002789	Paxs	585.24	Joback Method
dvisc	0.0003516	Paxs	543.38	Joback Method

dvisc	0.0004606	Paxs	501.51	Joback Method
dvisc	0.0006338	Paxs	459.65	Joback Method
dvisc	0.0009299	Paxs	417.79	Joback Method
dvisc	0.0014857	Paxs	375.92	Joback Method
dvisc	0.0026697	Paxs	334.06	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=C86218055&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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