Cyclopentane, 1,2,3,4,5-pentamethoxy-, stereoisomer

Other names: 1,2,3,4,5-Pentamethoxycyclopentane
Inchi: InChI=1S/C10H20O5/c1-11-6-7(12-2)9(14-4)10(15-5)8(6)13-3/h6-10H,1-5H3
InchiKey: FNIWXGXPELOQSR-UHFFFAOYSA-N
Formula: C10H20O5
SMILES: COC1C(OC)C(OC)C(OC)C1OC
Mol. weight [g/mol]: 220.26
CAS: 29887-59-0

Physical Properties

Property code	Value	Unit	Source
gf	-485.97	kJ/mol	Joback Method
hf	-931.71	kJ/mol	Joback Method
hfus	25.82	kJ/mol	Joback Method
hvap	48.92	kJ/mol	Joback Method
log10ws	0.10		Crippen Method
logp	0.075		Crippen Method
mcvol	170.250	ml/mol	McGowan Method
pc	2038.23	kPa	Joback Method
tb	536.90	K	Joback Method
tc	720.17	K	Joback Method
tf	307.55	K	Joback Method
vc	0.623	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	440.98	J/mol×K	536.90	Joback Method
cpg	525.01	J/mol×K	689.63	Joback Method
cpg	509.40	J/mol×K	659.08	Joback Method
cpg	493.16	J/mol×K	628.54	Joback Method
cpg	476.31	J/mol×K	597.99	Joback Method
cpg	458.90	J/mol×K	567.45	Joback Method
cpg	539.92	J/mol×K	720.17	Joback Method
dvisc	0.0001806	Pa×s	536.90	Joback Method

dvisc	0.0002019	Pa×s	498.67	Joback Method
dvisc	0.0002300	Pa×s	460.45	Joback Method
dvisc	0.0002683	Pa×s	422.23	Joback Method
dvisc	0.0003226	Pa×s	384.00	Joback Method
dvisc	0.0004041	Pa×s	345.77	Joback Method
dvisc	0.0005354	Pa×s	307.55	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=C29887590&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