1,3,7,9 Tetraoxacyclododecane

Inchi: InChI=1S/C8H16O4/c1-3-9-7-11-5-2-6-12-8-10-4-1/h1-8H2
InchiKey: CWZGOKFRNJKAMG-UHFFFAOYSA-N
Formula: C8H16O4
SMILES: C1COCOCCCOCOC1
Mol. weight [g/mol]: 176.21
CAS: 294-84-8

Physical Properties

Property code	Value	Unit	Source
gf	-368.44	kJ/mol	Joback Method
hf	-698.75	kJ/mol	Joback Method
hfus	26.56	kJ/mol	Joback Method
hvap	53.21	kJ/mol	Joback Method
log10ws	-0.41		Crippen Method
logp	0.762		Crippen Method
mcvol	136.200	ml/mol	McGowan Method
pc	3745.38	kPa	Joback Method
tb	540.08	K	Joback Method
tc	788.65	K	Joback Method
tf	276.70	K	Joback Method
vc	0.454	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	340.89	J/mol×K	540.08	Joback Method
cpg	434.46	J/mol×K	747.22	Joback Method
cpg	418.48	J/mol×K	705.79	Joback Method
cpg	401.09	J/mol×K	664.36	Joback Method
cpg	382.34	J/mol×K	622.94	Joback Method
cpg	362.26	J/mol×K	581.51	Joback Method
cpg	449.00	J/mol×K	788.65	Joback Method
dvisc	0.0000736	Pa×s	540.08	Joback Method
dvisc	0.0001332	Pa×s	496.18	Joback Method

dvisc	0.0002705	Pa×s	452.29	Joback Method
dvisc	0.0006401	Pa×s	408.39	Joback Method
dvisc	0.0018632	Pa×s	364.49	Joback Method
dvisc	0.0072676	Pa×s	320.60	Joback Method
dvisc	0.0436594	Pa×s	276.70	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C294848&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
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