1,8-Dimethoxyoctane

Inchi: InChI=1S/C10H22O2/c1-11-9-7-5-3-4-6-8-10-12-2/h3-10H2,1-2H3
InchiKey: HDFIOFYQNHYFKS-UHFFFAOYSA-N
Formula: C10H22O2
SMILES: COCCCCCCCCOC
Mol. weight [g/mol]: 174.28
CAS: 51306-09-3

Physical Properties

Property code	Value	Unit	Source
gf	-176.68	kJ/mol	Joback Method
hf	-514.17	kJ/mol	Joback Method
hfus	24.03	kJ/mol	Joback Method
hvap	42.67	kJ/mol	Joback Method
log10ws	-2.18		Crippen Method
logp	2.620		Crippen Method
mcvol	163.500	ml/mol	McGowan Method
pc	2043.76	kPa	Joback Method
tb	473.04	K	Joback Method
tc	635.66	K	Joback Method
tf	246.92	K	Joback Method
vc	0.631	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	369.29	J/mol×K	473.04	Joback Method
cpg	383.82	J/mol×K	500.14	Joback Method
cpg	397.90	J/mol×K	527.25	Joback Method
cpg	411.54	J/mol×K	554.35	Joback Method
cpg	424.74	J/mol×K	581.45	Joback Method
cpg	437.50	J/mol×K	608.55	Joback Method
cpg	449.81	J/mol×K	635.66	Joback Method
dvisc	0.0030771	Pa×s	246.92	Joback Method
dvisc	0.0013793	Pa×s	284.61	Joback Method

dvisc	0.0007459	Pa×s	322.29	Joback Method
dvisc	0.0004588	Pa×s	359.98	Joback Method
dvisc	0.0003094	Pa×s	397.67	Joback Method
dvisc	0.0002234	Pa×s	435.35	Joback Method
dvisc	0.0001699	Pa×s	473.04	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=C51306093&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