

Diethyl phenyl orthoformate

Other names:	Benzene, (diethoxymethoxy)- (diethoxymethoxy)benzene
Inchi:	InChI=1S/C11H16O3/c1-3-12-11(13-4-2)14-10-8-6-5-7-9-10/h5-9,11H,3-4H2,1-2H3
InchiKey:	QTURWMMVIBRRP-UHFFFAOYSA-N
Formula:	C11H16O3
SMILES:	CCOC(OCC)Oc1ccccc1
Mol. weight [g/mol]:	196.24
CAS:	14444-77-0

Physical Properties

Property code	Value	Unit	Source
gf	-163.29	kJ/mol	Joback Method
hf	-435.78	kJ/mol	Joback Method
hfus	18.33	kJ/mol	Joback Method
hvap	49.20	kJ/mol	Joback Method
log10ws	-2.54		Crippen Method
logp	2.422		Crippen Method
mvol	159.700	ml/mol	McGowan Method
pc	2535.37	kPa	Joback Method
tb	544.58	K	Joback Method
tc	745.86	K	Joback Method
tf	291.84	K	Joback Method
vc	0.592	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	376.94	J/mol×K	544.58	Joback Method
cpg	392.29	J/mol×K	578.13	Joback Method
cpg	406.95	J/mol×K	611.67	Joback Method
cpg	420.91	J/mol×K	645.22	Joback Method
cpg	434.16	J/mol×K	678.77	Joback Method
cpg	446.69	J/mol×K	712.32	Joback Method
cpg	458.51	J/mol×K	745.86	Joback Method

dvisc	0.0019978	Paxs	291.84	Joback Method
dvisc	0.0009242	Paxs	333.96	Joback Method
dvisc	0.0005081	Paxs	376.09	Joback Method
dvisc	0.0003151	Paxs	418.21	Joback Method
dvisc	0.0002133	Paxs	460.33	Joback Method
dvisc	0.0001541	Paxs	502.46	Joback Method
dvisc	0.0001171	Paxs	544.58	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14444770&Units=SI

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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