1,4-Dioxane-2,3-diyl diethyl dicarbonate

Inchi: InChI=1S/C10H16O8/c1-3-13-9(11)17-7-8(16-6-5-15-7)18-10(12)14-4-2/h7-8H,3-6H2,1-2
InchiKey: AJIDUSGIWLUMQS-UHFFFAOYSA-N
Formula: C10H16O8
SMILES: CCOC(=O)OC1OCCOC1OC(=O)OCC
Mol. weight [g/mol]: 264.23

Physical Properties

Property code	Value	Unit	Source
gf	-800.02	kJ/mol	Joback Method
hf	-1233.79	kJ/mol	Joback Method
hfus	38.47	kJ/mol	Joback Method
hvap	70.13	kJ/mol	Joback Method
log10ws	-1.15		Crippen Method
logp	1.032		Crippen Method
mcvol	179.260	ml/mol	McGowan Method
pc	2587.22	kPa	Joback Method
rinpol	1704.00		NIST Webbook
tb	694.40	K	Joback Method
tc	898.32	K	Joback Method
tf	447.52	K	Joback Method
vc	0.653	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	522.57	J/mol×K	694.40	Joback Method
cpg	537.23	J/mol×K	728.39	Joback Method
cpg	550.96	J/mol×K	762.37	Joback Method
cpg	563.74	J/mol×K	796.36	Joback Method
cpg	575.52	J/mol×K	830.35	Joback Method
cpg	586.27	J/mol×K	864.33	Joback Method
cpg	595.94	J/mol×K	898.32	Joback Method
dvisc	0.0009323	Pa×s	447.52	Joback Method
dvisc	0.0005756	Pa×s	488.67	Joback Method

dvisc	0.0003830	Pa×s	529.81	Joback Method
dvisc	0.0002703	Pa×s	570.96	Joback Method
dvisc	0.0001999	Pa×s	612.11	Joback Method
dvisc	0.0001535	Pa×s	653.25	Joback Method
dvisc	0.0001217	Pa×s	694.40	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U373806&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume