Ethylene diacrylate

Other names:	1,2-ethanediyl diacrylate
	2-Propenoic acid, 1,2-ethanediyl ester
	Acrylic acid, diester with ethylene glycol
	Acrylic acid, ethylene ester
	Acrylic acid, ethylene glycol diester
	Ethylene acrylate
	Ethylene glycol diacrylate
Inchi:	InChI=1S/C8H10O4/c1-3-7(9)11-5-6-12-8(10)4-2/h3-4H,1-2,5-6H2
InchiKey:	KUDUQBURMYMBIJ-UHFFFAOYSA-N
Formula:	C8H10O4
SMILES:	C=CC(=O)OCCOC(=O)C=C
Mol. weight [g/mol]:	170.16
CAS:	2274-11-5

Physical Properties

Property code	Value	Unit	Source
gf	-275.68	kJ/mol	Joback Method
hf	-447.19	kJ/mol	Joback Method
hfus	19.49	kJ/mol	Joback Method
hvap	50.37	kJ/mol	Joback Method
log10ws	-0.60		Crippen Method
logp	0.445		Crippen Method
mcvol	129.860	ml/mol	McGowan Method
pc	3052.41	kPa	Joback Method
tb	528.38	K	Joback Method
tc	719.27	K	Joback Method
tf	320.72	K	Joback Method
vc	0.493	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	284.88	J/mol×K	528.38	Joback Method
cpg	295.01	J/mol×K	560.19	Joback Method

cpg	304.70	J/mol×K	592.01	Joback Method
cpg	313.96	J/mol×K	623.82	Joback Method
cpg	322.79	J/mol×K	655.64	Joback Method
cpg	331.18	J/mol×K	687.45	Joback Method
cpg	339.13	J/mol×K	719.27	Joback Method
dvisc	0.0018542	Pa×s	320.72	Joback Method
dvisc	0.0011166	Pa×s	355.33	Joback Method
dvisc	0.0007357	Pa×s	389.94	Joback Method
dvisc	0.0005189	Pa×s	424.55	Joback Method
dvisc	0.0003858	Pa×s	459.16	Joback Method
dvisc	0.0002990	Pa×s	493.77	Joback Method
dvisc	0.0002396	Pa×s	528.38	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2274115&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
KDB:	https://www.cheric.org/files/research/kdb/mol/mol1183.mol
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume