2-Propenoic acid, 1,4-butanediyl ester

Other names:	Acrylic acid, tetramethylene ester
	Butylene diacrylate
	Tetramethylene acrylate
	Tetramethylene diacrylate
	Tetramethylene glycol diacrylate
	1,4-Butanediol diacrylate
	1,4-Butylene diacrylate
	1,4-Butylene glycol diacrylate
	1,4-butanediyl diacrylate
Inchi:	InChI=1S/C10H14O4/c1-3-9(11)13-7-5-6-8-14-10(12)4-2/h3-4H,1-2,5-8H2
InchiKey:	JHWGFJBTMHEZME-UHFFFAOYSA-N
Formula:	C10H14O4
SMILES:	C=CC(=O)OCCCCOC(=O)C=C
Mol. weight [g/mol]:	198.22
CAS:	1070-70-8

Physical Properties

Property code	Value	Unit	Source
gf	-258.84	kJ/mol	Joback Method
hf	-488.47	kJ/mol	Joback Method
hfus	24.67	kJ/mol	Joback Method
hvap	54.83	kJ/mol	Joback Method
log10ws	-1.44		Crippen Method
logp	1.225		Crippen Method
mcvol	158.040	ml/mol	McGowan Method
pc	2495.01	kPa	Joback Method
tb	574.14	K	Joback Method
tc	760.60	K	Joback Method
tf	343.26	K	Joback Method
vc	0.606	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	375.22	J/mol×K	574.14	Joback Method
cpg	387.19	J/mol×K	605.22	Joback Method
cpg	398.63	J/mol×K	636.29	Joback Method
cpg	409.53	J/mol×K	667.37	Joback Method
cpg	419.89	J/mol×K	698.44	Joback Method
cpg	429.73	J/mol×K	729.52	Joback Method
cpg	439.03	J/mol×K	760.60	Joback Method
dvisc	0.0017838	Pa×s	343.26	Joback Method
dvisc	0.0010336	Pa×s	381.74	Joback Method
dvisc	0.0006618	Pa×s	420.22	Joback Method
dvisc	0.0004567	Pa×s	458.70	Joback Method
dvisc	0.0003338	Pa×s	497.18	Joback Method
dvisc	0.0002552	Pa×s	535.66	Joback Method
dvisc	0.0002023	Pa×s	574.14	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1070708&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