1,2-Propanediol diacrylate

Other names: 1-methyl-1,2-ethanediyl diacrylate
Inchi: InChI=1S/C9H12O4/c1-4-8(10)12-6-7(3)13-9(11)5-2/h4-5,7H,1-2,6H2,3H3
InchiKey: VFZKVQVQOMDJEG-UHFFFAOYSA-N
Formula: C9H12O4
SMILES: C=CC(=O)OCC(C)OC(=O)C=C
Mol. weight [g/mol]: 184.19
CAS: 25151-33-1

Physical Properties

Property code	Value	Unit	Source
gf	-269.70	kJ/mol	Joback Method
hf	-473.11	kJ/mol	Joback Method
hfus	18.56	kJ/mol	Joback Method
hvap	52.21	kJ/mol	Joback Method
log10ws	-1.13		Crippen Method
logp	0.833		Crippen Method
mcvol	143.950	ml/mol	McGowan Method
pc	2775.92	kPa	Joback Method
rinpol	1100.00		NIST Webbook
rinpol	1100.00		NIST Webbook
tb	550.82	K	Joback Method
tc	743.22	K	Joback Method
tf	316.99	K	Joback Method
vc	0.543	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	329.50	J/mol×K	550.82	Joback Method
cpg	340.89	J/mol×K	582.89	Joback Method
cpg	351.76	J/mol×K	614.95	Joback Method
cpg	362.12	J/mol×K	647.02	Joback Method
cpg	371.96	J/mol×K	679.09	Joback Method
cpg	381.29	J/mol×K	711.15	Joback Method

cpg	390.10	J/mol×K	743.22	Joback Method
dvisc	0.0023193	Pa×s	316.99	Joback Method
dvisc	0.0012447	Pa×s	355.96	Joback Method
dvisc	0.0007553	Pa×s	394.93	Joback Method
dvisc	0.0005014	Pa×s	433.91	Joback Method
dvisc	0.0003561	Pa×s	472.88	Joback Method
dvisc	0.0002664	Pa×s	511.85	Joback Method
dvisc	0.0002077	Pa×s	550.82	Joback Method

Sources

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=C25151331&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

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