

2-Ethoxyethyl methacrylate

Other names:	2-Propenoic acid, 2-methyl-, 2-ethoxyethyl ester Ethoxyethyl methacrylate Methacrylic acid, 2-ethoxyethyl ester
Inchi:	InChI=1S/C8H14O3/c1-4-10-5-6-11-8(9)7(2)3/h2,4-6H2,1,3H3
InchiKey:	SFPNZPQIIAJXGL-UHFFFAOYSA-N
Formula:	C8H14O3
SMILES:	C=C(C)C(=O)OCCOCC
Mol. weight [g/mol]:	158.19
CAS:	2370-63-0

Physical Properties

Property code	Value	Unit	Source
gf	-243.15	kJ/mol	Joback Method
hf	-469.83	kJ/mol	Joback Method
hfus	17.86	kJ/mol	Joback Method
hvap	44.38	kJ/mol	Joback Method
log10ws	-0.97		Crippen Method
logp	1.142		Crippen Method
mcvol	132.590	ml/mol	McGowan Method
pc	2741.15	kPa	Joback Method
tb	477.71	K	Joback Method
tc	658.91	K	Joback Method
tf	258.59	K	Joback Method
vc	0.507	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.44	J/molxK	477.71	Joback Method
cpg	298.06	J/molxK	507.91	Joback Method
cpg	309.29	J/molxK	538.11	Joback Method
cpg	320.12	J/molxK	568.31	Joback Method
cpg	330.54	J/molxK	598.51	Joback Method
cpg	340.55	J/molxK	628.71	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	365.20	K	4.70	NIST Webbook

Sources

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=C2370630&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
High pressure phase behavior for binary mixture of 2-ethoxyethyl methacrylate and 2,3-epoxypropyl methacrylate in supercritical carbon dioxide:	https://www.doi.org/10.1016/j.fluid.2012.09.004

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvpap:	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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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