2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester

Other names: (ethane-1,2-diylbis(oxy))bis(ethane-2,1-diyl) bis(2-methylacrylate)
1,2-Bis[2-(Methacryloyloxy)ethoxy]ethane
1,2-ethanediylbis(oxy-2,1-ethanediyl) bis(2-methyl-2-propenoate)
2,2'-ethylenedioxydiethyl dimethacrylate
2-Propenoic acid, 2-methyl-, 1,1'-[1,2-ethanediylbis(oxy-2,1-ethanediyl)] ester
Bisomer TEGDMA
Ethylenebis(oxyethylene) methacrylate
Methacrylic acid, diester with triethylene glycol
NK Ester 3G
NSC 84260
Polyester TGM-3
TEDMA
TGM 3
TGM 35
TGM 3PC
TGM 3S
Triethylene dimethacrylate
ethane-1,2-diylbis(oxyethane-2,1-diyl) bis(2-methylacrylate)
ethane-1,2-diylbis(oxyethane-2,1-diyl) bis(2-methylprop-2-enoate)
triethylene glycol dimethacrylate

Inchi: InChI=1S/C14H22O6/c1-11(2)13(15)19-9-7-17-5-6-18-8-10-20-14(16)12(3)4/h1,3,5-10H2

InchiKey: HWSSEYVMGDIFMH-UHFFFAOYSA-N

Formula: C14H22O6

SMILES: C=C(C)C(=O)OCCOCCOCCOC(=O)C(=C)C

Mol. weight [g/mol]: 286.32

CAS: 109-16-0

Physical Properties

Property code	Value	Unit	Source
gf	-452.26	kJ/mol	Joback Method
hf	-855.05	kJ/mol	Joback Method
hfus	34.79	kJ/mol	Joback Method
hvap	68.71	kJ/mol	Joback Method
log10ws	-1.29		Crippen Method
logp	1.258		Crippen Method
mcvol	226.140	ml/mol	McGowan Method
pc	1721.73	kPa	Joback Method

tb	710.26	K	Joback Method
tc	894.77	K	Joback Method
tf	404.88	K	Joback Method
vc	0.868	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	630.66	J/mol×K	710.26	Joback Method
cpg	645.14	J/mol×K	741.01	Joback Method
cpg	658.86	J/mol×K	771.76	Joback Method
cpg	671.80	J/mol×K	802.51	Joback Method
cpg	683.97	J/mol×K	833.26	Joback Method
cpg	695.35	J/mol×K	864.02	Joback Method
cpg	705.94	J/mol×K	894.77	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	444.20	K	0.70	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C109160&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
High-pressure phase behavior of tri-ethylene glycol dimethacrylate and tetra-ethylene glycol dimethacrylate in supercritical carbon dioxide:	https://www.doi.org/10.1016/j.fluid.2011.12.011
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
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume