diacrylate of tetra-propoxylated glycerol (Acrylic acid 2-[2-(2-acryloyloxy-propoxy)-propoxy]-1-[2-(2-hydroxy-propoxy)-propoxymethyl]-ethyl ester)

Other names:	diacrylate of tetra-propoxylated glycerol (Acrylic acid 2-[2-(2-acryloyloxy-propoxy)-propoxy]-1-[2-(2-hydroxy-propoxy)-propoxymethyl]-ethyl ester)
Inchi:	InChI=1S/C21H36O9/c1-7-20(23)29-18(6)12-28-17(5)11-26-14-19(30-21(24)8-2)13-25-10-16(4)27-9-15(3)22/h7-8,15-19,22H,1-2,9-14H2,3-6H3
Inchikey:	WHBRKEKIPTXOLX-UHFFFAOYSA-N
Formula:	C21H36O9
SMILES:	C=CC(=O)OC(C)COC(C)COCC(COCC(C)OCC(C)O)OC(=O)C=C
Mol. weight [g/mol]:	432.51

Physical Properties

Property code	Value	Unit	Source
gf	-735.24	kJ/mol	Joback Method
hf	-1423.02	kJ/mol	Joback Method
hfus	44.38	kJ/mol	Joback Method
hvap	103.69	kJ/mol	Joback Method
log10ws	-2.22		Crippen Method
logp	1.426		Crippen Method
mcvol	342.380	ml/mol	McGowan Method
pc	1115.57	kPa	Joback Method
rinpol	2489.00		NIST Webbook
rinpol	2489.00		NIST Webbook
rinpol	2489.00		NIST Webbook
tb	1005.48	K	Joback Method
tc	1238.12	K	Joback Method
tf	541.97	K	Joback Method
vc	1.282	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1158.15	J/mol×K	1005.48	Joback Method
cpg	1171.29	J/mol×K	1044.25	Joback Method
cpg	1182.28	J/mol×K	1083.03	Joback Method
cpg	1191.10	J/mol×K	1121.80	Joback Method
cpg	1197.73	J/mol×K	1160.58	Joback Method
cpg	1202.13	J/mol×K	1199.35	Joback Method

cpg	1204.30	J/mol×K	1238.12	Joback Method
dvisc	0.0001073	Pa×s	541.97	Joback Method
dvisc	0.0000317	Pa×s	619.22	Joback Method
dvisc	0.0000123	Pa×s	696.47	Joback Method
dvisc	0.0000058	Pa×s	773.73	Joback Method
dvisc	0.0000031	Pa×s	850.98	Joback Method
dvisc	0.0000018	Pa×s	928.23	Joback Method
dvisc	0.0000012	Pa×s	1005.48	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R508273&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
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
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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