tetra-propoxylated glycerol triacrylate (Acrylic acid 2-{2-[2,3-bis-(2-acryloyloxy-propoxy)-propoxy]-1-methyl-ethyl} ester)

Inchi: InChI=1S/C24H38O10/c1-8-22(25)32-18(5)12-29-16-21(31-14-20(7)34-24(27)10-3)15-28-13-19(33-23(26)9-2)11-17(4)30-6/h8-10,17-21H,1-3,11-16H2,4-7H3

InchiKey: PWFXFAXUOCREGU-UHFFFAOYSA-N

Formula: C24H38O10

SMILES: C=CC(=O)OC(C)COCC(COCC(C)OCC(C)OC(=O)C=C)OCC(C)OC(=O)C=C

Mol. weight [g/mol]: 486.55

Physical Properties

Property code	Value	Unit	Source
gf	-719.24	kJ/mol	Joback Method
hf	-1452.08	kJ/mol	Joback Method
hfus	49.57	kJ/mol	Joback Method
hvap	102.18	kJ/mol	Joback Method
log10ws	-2.93		Crippen Method
logp	2.163		Crippen Method
mcvol	381.920	ml/mol	McGowan Method
pc	926.11	kPa	Joback Method
rinpol	2666.00		NIST Webbook
tb	1054.91	K	Joback Method
tc	1300.10	K	Joback Method
tf	585.36	K	Joback Method
vc	1.437	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1290.80	J/mol×K	1054.91	Joback Method
cpg	1320.18	J/mol×K	1259.24	Joback Method
cpg	1319.92	J/mol×K	1218.37	Joback Method
cpg	1316.81	J/mol×K	1177.51	Joback Method
cpg	1310.89	J/mol×K	1136.64	Joback Method
cpg	1302.21	J/mol×K	1095.78	Joback Method
cpg	1317.58	J/mol×K	1300.10	Joback Method
dvisc	0.0000045	Pa×s	1054.91	Joback Method
dvisc	0.0000062	Pa×s	976.65	Joback Method

dvisc	0.0000090	Pa×s	898.39	Joback Method
dvisc	0.0000140	Pa×s	820.13	Joback Method
dvisc	0.0000239	Pa×s	741.88	Joback Method
dvisc	0.0000463	Pa×s	663.62	Joback Method
dvisc	0.0001070	Pa×s	585.36	Joback Method

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=R508575&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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