tetra-ethoxylated trimethylol propane triacrylate (Acrylic acid 2-{2-[2-(2-acryloyloxy-ethoxy)-ethoxy]-ethoxymeth ester)

Inchi: InChI=1S/C23H36O10/c1-5-20(24)31-14-11-27-9-10-28-17-23(8-4,18-29-12-15-32-21(25)6-2)19-30-13-16-33-22(26)7-3/h5-7H,1-3,8-19H2,4H3

InchiKey: JDXWRISBIXQSPX-UHFFFAOYSA-N

Formula: C23H36O10

SMILES: C=CC(=O)OCCOCCOCC(CC)(COCCOC(=O)C=C)COCCOC(=O)C=C

Mol. weight [g/mol]: 472.53

Physical Properties

Property code	Value	Unit	Source
gf	-712.62	kJ/mol	Joback Method
hf	-1413.79	kJ/mol	Joback Method
hfus	57.18	kJ/mol	Joback Method
hvap	100.59	kJ/mol	Joback Method
log10ws	-1.71		Crippen Method
logp	1.637		Crippen Method
mcvol	367.830	ml/mol	McGowan Method
pc	969.88	kPa	Joback Method
rinpol	2852.00		NIST Webbook
rinpol	2852.00		NIST Webbook
tb	1031.00	K	Joback Method
tc	1269.70	K	Joback Method
tf	651.51	K	Joback Method
vc	1.399	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1229.71	J/mol×K	1031.00	Joback Method
cpg	1269.54	J/mol×K	1229.92	Joback Method
cpg	1266.12	J/mol×K	1190.13	Joback Method
cpg	1260.42	J/mol×K	1150.35	Joback Method
cpg	1252.44	J/mol×K	1110.57	Joback Method
cpg	1242.20	J/mol×K	1070.78	Joback Method
cpg	1270.68	J/mol×K	1269.70	Joback Method
dvisc	0.0000065	Pa×s	1031.00	Joback Method

dvisc	0.0000084	Pa×s	967.75	Joback Method
dvisc	0.0000113	Pa×s	904.50	Joback Method
dvisc	0.0000159	Pa×s	841.26	Joback Method
dvisc	0.0000237	Pa×s	778.01	Joback Method
dvisc	0.0000378	Pa×s	714.76	Joback Method
dvisc	0.0000661	Pa×s	651.51	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R508560&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