Pentaerythrityl triacrylate

Other names:	2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester
	Acrylic acid, triester with pentaerythritol
	Pentaerythritol triacrylate
	PETIA
	SR 444
	Tetramethylolmethane triacrylate
	Pentaerithritol triacrylate
	Acrylic acid, pentaerithritol triester
	PETA
	Propenoic acid 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester
	2-Propenoic acid, 1,1'-[2-(hydroxymethyl)-2-[[(1-oxo-2-propen-1-yl)oxy]methyl]-1,3-propanediyl] ester
	Aronix M 305
	Gafgard 233
	Kayarad PET 30
	Light Acrylate PE 3A
	NK Ester TMM 50T
	P 300 (acrylate)
	Sartomer SR 444
	Setalux UV 2242
	SR 444C
	2-(hydroxymethyl)-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate
Inchi:	InChI=1S/C14H18O7/c1-4-11(16)19-8-14(7-15,9-20-12(17)5-2)10-21-13(18)6-3/h4-6,15H
InchiKey:	HVVWZTWDBSEWIH-UHFFFAOYSA-N
Formula:	C14H18O7
SMILES:	C=CC(=O)OCC(CO)(COC(=O)C=C)COC(=O)C=C
Mol. weight [g/mol]:	298.29
CAS:	3524-68-3

Physical Properties

Property code	Value	Unit	Source
gf	-505.22	kJ/mol	Joback Method
hf	-851.38	kJ/mol	Joback Method
hfus	33.21	kJ/mol	Joback Method
hvap	87.60	kJ/mol	Joback Method
log10ws	-0.85		Crippen Method
logp	0.153		Crippen Method

mcvol	223.410	ml/mol	McGowan Method
pc	2090.75	kPa	Joback Method
rinpol	1970.00		NIST Webbook
rinpol	1970.00		NIST Webbook
rinpol	1970.00		NIST Webbook
tb	827.58	K	Joback Method
tc	1023.13	K	Joback Method
tf	521.98	K	Joback Method
vc	0.843	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	651.64	J/mol×K	827.58	Joback Method
cpg	662.18	J/mol×K	860.17	Joback Method
cpg	671.93	J/mol×K	892.76	Joback Method
cpg	680.92	J/mol×K	925.36	Joback Method
cpg	689.18	J/mol×K	957.95	Joback Method
cpg	696.71	J/mol×K	990.54	Joback Method
cpg	703.54	J/mol×K	1023.13	Joback Method
dvisc	0.0003411	Pa×s	521.98	Joback Method
dvisc	0.0001585	Pa×s	572.91	Joback Method
dvisc	0.0000835	Pa×s	623.85	Joback Method
dvisc	0.0000485	Pa×s	674.78	Joback Method
dvisc	0.0000304	Pa×s	725.71	Joback Method
dvisc	0.0000202	Pa×s	776.65	Joback Method
dvisc	0.0000142	Pa×s	827.58	Joback Method

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3524683&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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