Trimethylolpropane triacrylate

Other names:	TMPTA (Trimethylol propane triacrylate; Acrylic acid 2,2-bis-acryloyloxymethyl-butyl ester) TMPTA (Trimethylol propane triacrylate) 2-ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate
Inchi:	InChI=1S/C15H20O6/c1-5-12(16)19-9-15(8-4,10-20-13(17)6-2)11-21-14(18)7-3/h5-7H,1-
InchiKey:	DAKWPKUUDNSNPN-UHFFFAOYSA-N
Formula:	C15H20O6
SMILES:	C=CC(=O)OCC(CC)(COC(=O)C=C)COC(=O)C=C
Mol. weight [g/mol]:	296.32
CAS:	15625-89-5

Physical Properties

Property code	Value	Unit	Source
gf	-359.98	kJ/mol	Joback Method
hf	-719.79	kJ/mol	Joback Method
hfus	31.71	kJ/mol	Joback Method
hvap	73.15	kJ/mol	Joback Method
log10ws	-2.01		Crippen Method
logp	1.570		Crippen Method
mcvol	231.630	ml/mol	McGowan Method
pc	1772.85	kPa	Joback Method
rinpol	1848.00		NIST Webbook
tb	758.28	K	Joback Method
tc	954.32	K	Joback Method
tf	472.43	K	Joback Method
vc	0.879	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	653.74	J/mol×K	758.28	Joback Method
cpg	711.23	J/mol×K	921.65	Joback Method
cpg	701.39	J/mol×K	888.97	Joback Method
cpg	690.74	J/mol×K	856.30	Joback Method
cpg	679.26	J/mol×K	823.63	Joback Method

cpg	666.94	J/mol×K	790.95	Joback Method
cpg	720.29	J/mol×K	954.32	Joback Method
dvisc	0.0000763	Pa×s	758.28	Joback Method
dvisc	0.0000983	Pa×s	710.64	Joback Method
dvisc	0.0001315	Pa×s	663.00	Joback Method
dvisc	0.0001839	Pa×s	615.36	Joback Method
dvisc	0.0002721	Pa×s	567.71	Joback Method
dvisc	0.0004325	Pa×s	520.07	Joback Method
dvisc	0.0007550	Pa×s	472.43	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=C15625895&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