Pentaerythritol tetraacrylate

Other names: 2,2-bis[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate
Inchi: InChI=1S/C17H20O8/c1-5-13(18)22-9-17(10-23-14(19)6-2,11-24-15(20)7-3)12-25-16(21)
InchiKey: KNSXNCFKSZZHEA-UHFFFAOYSA-N
Formula: C17H20O8
SMILES: C=CC(=O)OCC(COC(=O)C=C)(COC(=O)C=C)COC(=O)C=C
Mol. weight [g/mol]: 352.34
CAS: 4986-89-4

Physical Properties

Property code	Value	Unit	Source
gf	-489.22	kJ/mol	Joback Method
hf	-880.44	kJ/mol	Joback Method
hfus	38.40	kJ/mol	Joback Method
hvap	86.08	kJ/mol	Joback Method
log10ws	-1.56		Crippen Method
logp	0.890		Crippen Method
mcvol	262.950	ml/mol	McGowan Method
pc	1627.22	kPa	Joback Method
rinpol	2111.00		NIST Webbook
rinpol	2111.00		NIST Webbook
rinpol	2111.00		NIST Webbook
tb	877.01	K	Joback Method
tc	1083.11	K	Joback Method
tf	565.37	K	Joback Method
vc	0.997	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	777.91	J/mol×K	877.01	Joback Method
cpg	789.27	J/mol×K	911.36	Joback Method
cpg	799.59	J/mol×K	945.71	Joback Method
cpg	808.92	J/mol×K	980.06	Joback Method
cpg	817.25	J/mol×K	1014.41	Joback Method

cpg	824.62	J/mol×K	1048.76	Joback Method
cpg	831.03	J/mol×K	1083.11	Joback Method
dvisc	0.0003548	Pa×s	565.37	Joback Method
dvisc	0.0002150	Pa×s	617.31	Joback Method
dvisc	0.0001409	Pa×s	669.25	Joback Method
dvisc	0.0000981	Pa×s	721.19	Joback Method
dvisc	0.0000717	Pa×s	773.13	Joback Method
dvisc	0.0000545	Pa×s	825.07	Joback Method
dvisc	0.0000428	Pa×s	877.01	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4986894&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