Hexafluoroisopropyl acrylate

Other names:	2-Propenoic acid, 2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester
	1,1,1,3,3,3-Hexafluoroisopropyl acrylate
	2,2,2-trifluoro-1-(trifluoromethyl)ethyl acrylate
Inchi:	InChI=1S/C6H4F6O2/c1-2-3(13)14-4(5(7,8)9)6(10,11)12/h2,4H,1H2
InchiKey:	MNSWITGNWZSAMC-UHFFFAOYSA-N
Formula:	C6H4F6O2
SMILES:	C=CC(=O)OC(C(F)(F)F)C(F)(F)F
Mol. weight [g/mol]:	222.09
CAS:	2160-89-6

Physical Properties

Property code	Value	Unit	Source
gf	-1312.06	kJ/mol	Joback Method
hf	-1485.98	kJ/mol	Joback Method
hfus	12.93	kJ/mol	Joback Method
hvap	29.55	kJ/mol	Joback Method
log10ws	-2.49		Crippen Method
logp	2.209		Crippen Method
mcvol	109.160	ml/mol	McGowan Method
pc	2684.64	kPa	Joback Method
tb	357.50 ± 0.50	K	NIST Webbook
tc	551.38	K	Joback Method
tf	221.16	K	Joback Method
vc	0.457	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	238.62	J/mol×K	398.37	Joback Method
cpg	247.81	J/mol×K	423.87	Joback Method
cpg	256.49	J/mol×K	449.37	Joback Method
cpg	264.67	J/mol×K	474.88	Joback Method
cpg	272.36	J/mol×K	500.38	Joback Method
cpg	279.60	J/mol×K	525.88	Joback Method

cpg	286.39	J/mol×K	551.38	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=C2160896&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume