1H,1H-Pentafluoropropyl acrylate

Other names:	2-Propenoic acid, 2,2,3,3,3-pentafluoropropyl ester
	2,2,3,3,3-Pentafluoropropyl acrylate
Inchi:	InChI=1S/C6H5F5O2/c1-2-4(12)13-3-5(7,8)6(9,10)11/h2H,1,3H2
InchiKey:	JDVGNKIUXZQTFD-UHFFFAOYSA-N
Formula:	C6H5F5O2
SMILES:	C=CC(=O)OCC(F)(F)C(F)(F)F
Mol. weight [g/mol]:	204.09
CAS:	356-86-5

Physical Properties

Property code	Value	Unit	Source
gf	-1114.81	kJ/mol	Joback Method
hf	-1284.59	kJ/mol	Joback Method
hfus	13.37	kJ/mol	Joback Method
hvap	30.76	kJ/mol	Joback Method
log10ws	-2.03		Crippen Method
logp	1.913		Crippen Method
mcvol	107.390	ml/mol	McGowan Method
pc	2790.61	kPa	Joback Method
tb	399.54	K	Joback Method
tc	557.13	K	Joback Method
tf	235.57	K	Joback Method
vc	0.445	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	230.37	J/mol×K	399.54	Joback Method
cpg	239.70	J/mol×K	425.80	Joback Method
cpg	248.50	J/mol×K	452.07	Joback Method
cpg	256.79	J/mol×K	478.33	Joback Method
cpg	264.59	J/mol×K	504.60	Joback Method
cpg	271.92	J/mol×K	530.86	Joback Method
cpg	278.79	J/mol×K	557.13	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	323.00	K	13.30	NIST Webbook

Sources

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=C356865&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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