Hexafluoroglutaryl chloride

Other names:	Perfluoroglutaryl chloride
	Pentanedioyl dichloride, hexafluoro-
	Glutaryl chloride, hexafluoro-
	hexafluoroglutaryl dichloride
Inchi:	InChI=1S/C5Cl2F6O2/c6-1(14)3(8,9)5(12,13)4(10,11)2(7)15
InchiKey:	QOLALWJWCONGMG-UHFFFAOYSA-N
Formula:	C5Cl2F6O2
SMILES:	O=C(Cl)C(F)(F)C(F)(F)C(F)(F)C(=O)Cl
Mol. weight [g/mol]:	276.95
CAS:	678-77-3

Physical Properties

Property code	Value	Unit	Source
gf	-1450.82	kJ/mol	Joback Method
hf	-1606.08	kJ/mol	Joback Method
hfus	16.54	kJ/mol	Joback Method
hvap	40.20	kJ/mol	Joback Method
log10ws	-2.71		Crippen Method
logp	2.423		Crippen Method
mcvol	119.550	ml/mol	McGowan Method
pc	2893.62	kPa	Joback Method
tb	384.00	K	NIST Webbook
tc	662.97	K	Joback Method
tf	316.61	K	Joback Method
vc	0.500	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	260.70	J/mol×K	482.33	Joback Method
cpg	268.06	J/mol×K	512.44	Joback Method
cpg	274.68	J/mol×K	542.54	Joback Method
cpg	280.62	J/mol×K	572.65	Joback Method
cpg	285.91	J/mol×K	602.76	Joback Method

cpg	290.61	J/mol×K	632.87	Joback Method
cpg	294.76	J/mol×K	662.97	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C678773&Units=SI

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