hexafluoroglutaryl difluoride

Other names: Hexafluoroglutaryl fluoride
Inchi: InChI=1S/C5F8O2/c6-1(14)3(8,9)5(12,13)4(10,11)2(7)15
InchiKey: XAKMJUAGVWKMOB-UHFFFAOYSA-N
Formula: C5F8O2
SMILES: O=C(F)C(F)(F)C(F)(F)C(F)(F)C(=O)F
Mol. weight [g/mol]: 244.04
CAS: 678-78-4

Physical Properties

Property code	Value	Unit	Source
gf	-1816.58	kJ/mol	Joback Method
hf	-1966.82	kJ/mol	Joback Method
hfus	14.30	kJ/mol	Joback Method
hvap	29.79	kJ/mol	Joback Method
log10ws	-2.11		Crippen Method
logp	1.885		Crippen Method
mcvol	98.610	ml/mol	McGowan Method
pc	2844.44	kPa	Joback Method
tb	319.50 ± 0.50	K	NIST Webbook
tc	557.52	K	Joback Method
tf	257.95	K	Joback Method
vc	0.439	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	229.71	J/mol×K	406.01	Joback Method
cpg	238.03	J/mol×K	431.26	Joback Method
cpg	245.74	J/mol×K	456.51	Joback Method
cpg	252.86	J/mol×K	481.77	Joback Method
cpg	259.43	J/mol×K	507.02	Joback Method
cpg	265.47	J/mol×K	532.27	Joback Method
cpg	271.00	J/mol×K	557.52	Joback Method

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=C678784&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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume