1,3-Pentadiyne, 1,5,5,5-tetrafluoro-

Other names: 1,3-Pentadiyne, 5,5,5-trifluoro-
Inchi: InChI=1S/C5F4/c6-4-2-1-3-5(7,8)9
InchiKey: MPUNIKDSZGUONG-UHFFFAOYSA-N
Formula: C5F4
SMILES: FC#CC#CC(F)(F)F
Mol. weight [g/mol]: 136.05
CAS: 64788-24-5

Physical Properties

Property code	Value	Unit	Source
gf	-379.58	kJ/mol	Joback Method
hf	-395.12	kJ/mol	Joback Method
hfus	19.86	kJ/mol	Joback Method
hvap	26.46	kJ/mol	Joback Method
ie	10.58	eV	NIST Webbook
ie	10.85	eV	NIST Webbook
log10ws	-2.52		Crippen Method
logp	1.482		Crippen Method
mcvol	71.190	ml/mol	McGowan Method
pc	4222.04	kPa	Joback Method
tb	325.65	K	Joback Method
tc	510.79	K	Joback Method
tf	363.09	K	Joback Method
vc	0.300	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	119.56	J/mol×K	325.65	Joback Method
cpg	125.17	J/mol×K	356.51	Joback Method
cpg	130.41	J/mol×K	387.36	Joback Method
cpg	135.30	J/mol×K	418.22	Joback Method
cpg	139.86	J/mol×K	449.08	Joback Method
cpg	144.09	J/mol×K	479.94	Joback Method

cpg	148.04	J/mol×K	510.79	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=C64788245&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
ie:	Ionization energy
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