Ditrifluoromethyl(trifluorocarbonyloxy)amine

Other names: O-(trifluoroacetyl)-N,N-bis(trifluoromethyl)hydroxylamine
Inchi: InChI=1S/C4F9NO2/c5-2(6,7)1(15)16-14(3(8,9)10)4(11,12)13
InchiKey: YMKYSGNRLODJID-UHFFFAOYSA-N
Formula: C4F9NO2
SMILES: O=C(ON(C(F)(F)F)C(F)(F)F)C(F)(F)F
Mol. weight [g/mol]: 265.03
CAS: 15496-02-3

Physical Properties

Property code	Value	Unit	Source
gf	-1885.11	kJ/mol	Joback Method
hf	-2094.40	kJ/mol	Joback Method
hfus	17.40	kJ/mol	Joback Method
hvap	24.46	kJ/mol	Joback Method
log10ws	-2.90		Crippen Method
logp	2.349		Crippen Method
mcvol	100.570	ml/mol	McGowan Method
pc	2752.67	kPa	Joback Method
tb	363.39	K	Joback Method
tc	496.27	K	Joback Method
tf	252.04	K	Joback Method
vc	0.430	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	232.27	J/mol×K	363.39	Joback Method
cpg	240.85	J/mol×K	385.54	Joback Method
cpg	248.92	J/mol×K	407.68	Joback Method
cpg	256.49	J/mol×K	429.83	Joback Method
cpg	263.60	J/mol×K	451.98	Joback Method
cpg	270.24	J/mol×K	474.12	Joback Method
cpg	276.45	J/mol×K	496.27	Joback Method
hvapt	30.50	kJ/mol	265.00	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C15496023&Units=SI
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

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
hvapt:	Enthalpy of vaporization at a given temperature
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