Trifluoroacetamide, N,N-diphenyl-

Other names: Diphenylamine, TFA
Inchi: InChI=1S/C14H10F3NO/c15-14(16,17)13(19)18(11-7-3-1-4-8-11)12-9-5-2-6-10-12/h1-10
InchiKey: ZMJSWAIATYIZKV-UHFFFAOYSA-N
Formula: C14H10F3NO
SMILES: O=C(N(c1ccccc1)c1ccccc1)C(F)(F)F
Mol. weight [g/mol]: 265.23

Physical Properties

Property code	Value	Unit	Source
gf	-307.91	kJ/mol	Joback Method
hf	-501.36	kJ/mol	Joback Method
hfus	26.54	kJ/mol	Joback Method
hvap	56.35	kJ/mol	Joback Method
log10ws	-4.03		Crippen Method
logp	3.914		Crippen Method
mcvol	177.460	ml/mol	McGowan Method
pc	2616.41	kPa	Joback Method
tb	633.97	K	Joback Method
tc	856.63	K	Joback Method
tf	386.97	K	Joback Method
vc	0.670	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	455.60	J/mol×K	633.97	Joback Method
cpg	470.12	J/mol×K	671.08	Joback Method
cpg	483.35	J/mol×K	708.19	Joback Method
cpg	495.41	J/mol×K	745.30	Joback Method
cpg	506.39	J/mol×K	782.41	Joback Method
cpg	516.39	J/mol×K	819.52	Joback Method
cpg	525.51	J/mol×K	856.63	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=U328356&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