Acetamide, N,N-diphenyl-

Other names:	Diphenylacetamide
	N-Acetyldiphenylamine
	N-Phenylacetanilide
	N,N-Diphenylacetamide
	Acetyldiphenylamine
Inchi:	InChI=1S/C14H13NO/c1-12(16)15(13-8-4-2-5-9-13)14-10-6-3-7-11-14/h2-11H,1H3
InchiKey:	DKLYDESVXZKCFI-UHFFFAOYSA-N
Formula:	C14H13NO
SMILES:	CC(=O)N(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	211.26
CAS:	519-87-9

Physical Properties

Property code	Value	Unit	Source
chs	-7324.10 ± 7.10	kJ/mol	NIST Webbook
gf	273.68	kJ/mol	Joback Method
hf	95.72	kJ/mol	Joback Method
hfs	-42.90 ± 7.10	kJ/mol	NIST Webbook
hfus	24.72	kJ/mol	Joback Method
hvap	60.10	kJ/mol	Joback Method
log10ws	-3.37		Crippen Method
logp	3.371		Crippen Method
mcvol	172.150	ml/mol	McGowan Method
pc	2956.90	kPa	Joback Method
tb	639.39	K	Joback Method
tc	881.85	K	Joback Method
tf	382.78	K	Joback Method
vc	0.627	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	496.08	J/mol×K	841.44	Joback Method
cpg	428.11	J/mol×K	639.39	Joback Method

cpg	444.23	J/mol×K	679.80	Joback Method
cpg	459.00	J/mol×K	720.21	Joback Method
cpg	472.50	J/mol×K	760.62	Joback Method
cpg	484.83	J/mol×K	801.03	Joback Method
cpg	506.35	J/mol×K	881.85	Joback Method
hfust	23.40	kJ/mol	374.40	NIST Webbook
hsubt	122.70	kJ/mol	359.50	NIST Webbook

Sources

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=C519879&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation at a given temperature
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