N,N'-Diacetyl benzidine

Other names:	Acetamide, N,N'-[1,1'-biphenyl]-4,4'-diylbis-
	Acetamide, N,N'-4,4'-biphenylylenebis-
	Benzidine, N,N'-diacetyl-
	Diacetylbenzidine
	N,N'-(1,1'-Biphenyl)-4,4'-diylbis-acetamide
	N,N'-4,4'-Biphenylylenebisacetamide
	4,4'-Diacetamidobiphenyl
	4,4'-Diacetylaminobiphenyl
	4,4'-Diacetylbenzidine
	4',4'''-Biacetanilide
	N,N'-(1,1'-Biphenyl)-4,4'-diylbis-acetamide 4',4'''-biacetanilide
	N-(4'-Acetylamino-biphenyl-4-yl)-acetamide
	4,4'-Diacetylamino-1,1'-biphenyl
	NSC 12409
	NSC 4717
Inchi:	InChI=1S/C16H16N2O2/c1-11(19)17-15-7-3-13(4-8-15)14-5-9-16(10-6-14)18-12(2)20/h3
InchiKey:	CZVHCFKUXGRABC-UHFFFAOYSA-N
Formula:	C16H16N2O2
SMILES:	CC(=O)Nc1ccc(-c2ccc(NC(C)=O)cc2)cc1
Mol. weight [g/mol]:	268.31
CAS:	613-35-4

Physical Properties

Property code	Value	Unit	Source
chs	-8110.30 ± 5.90	kJ/mol	NIST Webbook
gf	210.34	kJ/mol	Joback Method
hf	-41.67	kJ/mol	Joback Method
hfus	37.90	kJ/mol	Joback Method
hvap	83.45	kJ/mol	Joback Method
log10ws	-4.48		Crippen Method
logp	3.270		Crippen Method
mcvol	211.880	ml/mol	McGowan Method
pc	2576.72	kPa	Joback Method
tb	836.88	K	Joback Method
tc	1075.41	K	Joback Method
tf	553.14	K	Joback Method
vc	0.797	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	608.57	J/mol×K	836.88	Joback Method
cpg	621.16	J/mol×K	876.64	Joback Method
cpg	632.65	J/mol×K	916.39	Joback Method
cpg	643.09	J/mol×K	956.15	Joback Method
cpg	652.55	J/mol×K	995.90	Joback Method
cpg	661.10	J/mol×K	1035.66	Joback Method
cpg	668.82	J/mol×K	1075.41	Joback Method

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=C613354&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
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