N,N'-Diacetyl-1,4-phenylenediamine

Other names: N,N'-Diacetyl-p-phenylenediamine
N,N'-(1,4-Phenylene)bisacetamide
N,N'-p-Phenylenebisacetamide
Acetamide, N,N'-1,4-phenylenebis-
p-Phenylenediacetamide
Acetamide, N,N'-p-phenylenebis-
1,4-Bisacetamidobenzene
1,4-Diacetamidobenzene
4'-Acetamidoacetanilide
NSC 401116
N,N'-(p-phenylene)di(acetamide)

Inchi: InChI=1S/C10H12N2O2/c1-7(13)11-9-3-5-10(6-4-9)12-8(2)14/h3-6H,1-2H3,(H,11,13)(H,

InchiKey: KVEDKKLZCJBVNP-UHFFFAOYSA-N

Formula: C10H12N2O2

SMILES: CC(=O)Nc1ccc(NC(C)=O)cc1

Mol. weight [g/mol]: 192.21

CAS: 140-50-1

Physical Properties

Property code	Value	Unit	Source
gf	57.04	kJ/mol	Joback Method
hf	-142.89	kJ/mol	Joback Method
hfus	28.70	kJ/mol	Joback Method
hvap	67.16	kJ/mol	Joback Method
log10ws	-1.88		Crippen Method
logp	1.603		Crippen Method
mcvol	151.100	ml/mol	McGowan Method
pc	3419.86	kPa	Joback Method
tb	667.94	K	Joback Method
tc	890.24	K	Joback Method
tf	446.58	K	Joback Method
vc	0.570	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	385.94	J/mol×K	667.94	Joback Method
cpg	397.88	J/mol×K	704.99	Joback Method
cpg	408.97	J/mol×K	742.04	Joback Method
cpg	419.24	J/mol×K	779.09	Joback Method
cpg	428.74	J/mol×K	816.14	Joback Method
cpg	437.49	J/mol×K	853.19	Joback Method
cpg	445.53	J/mol×K	890.24	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=C140501&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
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