Ethanediamide, N,N'-diphenyl-

Other names:	Oxanilide
	N,N'-Diphenyloxamide
	Oxalanilide
	Oxamide, N,N'-diphenyl-
	Oxanilid
	Oxaldianilide
	N,N'-Diphenyloxalamide
	Bis-(phenyl-carbamyl)
	Ethanediamide, N1,N2-diphenyl-
	NSC 4183
Inchi:	InChI=1S/C14H12N2O2/c17-13(15-11-7-3-1-4-8-11)14(18)16-12-9-5-2-6-10-12/h1-10H,(
InchiKey:	FTWUXYZHDFCGSV-UHFFFAOYSA-N
Formula:	C14H12N2O2
SMILES:	O=C(Nc1ccccc1)C(=O)Nc1ccccc1
Mol. weight [g/mol]:	240.26
CAS:	620-81-5

Physical Properties

Property code	Value	Unit	Source
gf	212.76	kJ/mol	Joback Method
hf	22.55	kJ/mol	Joback Method
hfus	33.49	kJ/mol	Joback Method
hvap	77.67	kJ/mol	Joback Method
log10ws	-2.69		Crippen Method
logp	2.264		Crippen Method
mcvol	183.700	ml/mol	McGowan Method
pc	3272.78	kPa	Joback Method
tb	781.16	K	Joback Method
tc	1026.92	K	Joback Method
tf	505.56	K	Joback Method
vc	0.685	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	503.59	J/mol×K	781.16	Joback Method
cpg	515.77	J/mol×K	822.12	Joback Method
cpg	526.79	J/mol×K	863.08	Joback Method
cpg	536.74	J/mol×K	904.04	Joback Method
cpg	545.71	J/mol×K	945.00	Joback Method
cpg	553.79	J/mol×K	985.96	Joback Method
cpg	561.06	J/mol×K	1026.92	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C620815&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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