Formamide, N,N-diphenyl-

Other names:	Formanilide, N-phenyl- N,N-Diphenylformamide Diphenylformamide N-Formyldiphenylamine
Inchi:	InChI=1S/C13H11NO/c15-11-14(12-7-3-1-4-8-12)13-9-5-2-6-10-13/h1-11H
InchiKey:	DCNUQRBLZWSGAV-UHFFFAOYSA-N
Formula:	C13H11NO
SMILES:	O=CN(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	197.23
CAS:	607-00-1

Physical Properties

Property code	Value	Unit	Source
gf	294.66	kJ/mol	Joback Method
hf	143.36	kJ/mol	Joback Method
hfus	22.82	kJ/mol	Joback Method
hvap	57.85	kJ/mol	Joback Method
log10ws	-2.95		Crippen Method
logp	2.981		Crippen Method
mcvol	158.060	ml/mol	McGowan Method
pc	3333.53	kPa	Joback Method
tb	610.70	K	NIST Webbook
tc	853.47	K	Joback Method
tf	363.58	K	Joback Method
vc	0.583	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	379.27	J/mol×K	611.30	Joback Method
cpg	394.58	J/mol×K	651.66	Joback Method
cpg	408.57	J/mol×K	692.02	Joback Method
cpg	421.34	J/mol×K	732.38	Joback Method
cpg	432.98	J/mol×K	772.75	Joback Method

cpg	443.59	J/mol×K	813.11	Joback Method
cpg	453.24	J/mol×K	853.47	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	610.20	K	102.00	NIST Webbook

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=C607001&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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume