

Benzenamine, 4,4'-oxybis-

Other names:	4,4'-Diaminobiphenyl oxide
	4,4'-Diaminodiphenyl oxide
	4,4'-Diaminophenyl ether
	4,4'-Diaminophenyl oxide
	4,4'-Oxybis[aniline]
	4,4'-Oxybisbenzenamine
	4,4'-Oxydiphenylamine
	4,4'-diaminodiphenyl ether
	4,4'-oxydianiline
	4,4-Dadpe
	4,4-Diaminodiphenyl ether
	4,4-Oxydianiline
	4-(4-Aminophenoxy)phenylamine
	4-aminophenyl ether
	Aniline, 4,4'-oxydi-
	Bis(p-aminophenyl) ether
	Dadpe
	Diaminodiphenyl ether
	Ether, 4,4'-diaminodiphenyl-
	NCI-C50146
	NSC 37075
	Oxybis[4-aminobenzene]
	Oxydi-p-phenylenediamine
	Oxydianiline
	bis(4-aminophenyl) ether
	di(4-Aminophenyl) ether
	p,p'-Diaminodiphenyl ether
	p,p'-Oxybis(aniline)
	p,p'-Oxydianiline
	p-Aminophenyl ether
Inchi:	InChI=1S/C12H12N2O/c13-9-1-5-11(6-2-9)15-12-7-3-10(14)4-8-12/h1-8H,13-14H2
InchiKey:	HLBLWEWZXPIGSM-UHFFFAOYSA-N
Formula:	C12H12N2O
SMILES:	<chem>Nc1ccc(Oc2ccc(N)cc2)cc1</chem>
Mol. weight [g/mol]:	200.24
CAS:	101-80-4

Physical Properties

Property code	Value	Unit	Source
chs	-6420.00 ± 1.00	kJ/mol	NIST Webbook
gf	283.62	kJ/mol	Joback Method
hf	94.47	kJ/mol	Joback Method
hfs	-17.00	kJ/mol	NIST Webbook
hfus	25.72	kJ/mol	Joback Method
hvap	71.87	kJ/mol	Joback Method
ie	6.55	eV	NIST Webbook
log10ws	-2.37		Crippen Method
logp	2.643		Crippen Method
mcvol	158.250	ml/mol	McGowan Method
pc	3713.49	kPa	Joback Method
ss	241.00	J/mol×K	NIST Webbook
tb	704.76	K	Joback Method
tc	965.17	K	Joback Method
tf	465.40 ± 0.10	K	NIST Webbook
tf	464.00	K	NIST Webbook
tf	462.67	K	Measurement and correlation of the solubility of 4,4'-oxydianiline in different organic solvents
vc	0.568	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	415.20	J/mol×K	704.76	Joback Method
cpg	471.63	J/mol×K	921.77	Joback Method
cpg	462.47	J/mol×K	878.37	Joback Method
cpg	452.30	J/mol×K	834.96	Joback Method
cpg	441.06	J/mol×K	791.56	Joback Method
cpg	428.71	J/mol×K	748.16	Joback Method
cpg	479.82	J/mol×K	965.17	Joback Method
cps	258.40	J/mol×K	300.00	NIST Webbook
cps	280.70	J/mol×K	298.00	NIST Webbook
cps	278.20	J/mol×K	298.00	NIST Webbook
hfust	7.74	kJ/mol	465.40	NIST Webbook
hfust	7.74	kJ/mol	465.40	NIST Webbook

Sources

Measurement and correlation of the solubility of 4,4'-oxydianiline in different organic solvents: Measurement and prediction of the solubilities of aromatic polyimide and polyimide in supercritical carbon dioxide with acetone: McGowan Method:

NIST Webbook:

Crippen Method:

Crippen Method:

<https://www.doi.org/10.1016/j.fluid.2013.07.010>

<https://www.doi.org/10.1016/j.jct.2012.04.013>

https://en.wikipedia.org/wiki/Joback_method

<http://link.springer.com/article/10.1007/BF02311772>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C101804&Units=SI>

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
cps:	Solid phase 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
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
sfust:	Entropy of fusion at a given temperature
ss:	Solid phase molar entropy at standard conditions
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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