Benzenamine, 4-(phenylazo)-

Other names:

4-(Phenylazo)benzenamine
4-Amino-1,1'-azobenzene
4-Aminoazobenzene
4-Aminoazobenzol
4-Benzeneazoaniline
4-Phenylazoaniline
Aminoazobenzene
Aniline Yellow
Aniline, p-(phenylazo)-
Azobenzene, 4-amino-
Benzenamine, 4-(2-phenyldiazenyl)-
Brasilazina Oil Yellow G
C.I. 11000
C.I. Solvent Blue 7
C.I. Solvent Yellow 1
Cellitazol R
Ceres Yellow R
Fast Spirit Yellow
Fast Spirit Yellow AAB
Fat Yellow AAB
Induline R
Oil Soluble Aniline Yellow
Oil Yellow 2G
Oil Yellow AAB
Oil Yellow AB
Oil Yellow AN
Oil Yellow B
Oil Yellow R
Oil-Sol. Aniline Yellow
Organol Yellow
Organol Yellow 2A
P-(PHENYLAZO)ANILINE
P-AMINOAZOBENZENE
P-AMINOAZOBENZOL
P-AMINODIPHENYLIMIDE
Paraphenolazo aniline
Solvent Yellow 1
Somalia Yellow 2G
Stearix Brown 4R
Sudan Yellow R

	Sudan Yellow RA
	USAF EK-1375
	Zlut anilinova
	Zlut rozpoustedlova 1
	p-(Phenolazo)aniline
	p-(Phenylazo)phenylamine
	p-Amimoazobenzene
	p-Aminodiphenyldiimide
Inchi:	InChI=1S/C12H11N3/c13-10-6-8-12(9-7-10)15-14-11-4-2-1-3-5-11/h1-9H,13H2
InchiKey:	QPQKUYVSJWQSDY-UHFFFAOYSA-N
Formula:	C12H11N3
SMILES:	Nc1ccc(N=Nc2ccccc2)cc1
Mol. weight [g/mol]:	197.24
CAS:	60-09-3

Physical Properties

Property code	Value	Unit	Source
chs	-6617.40	kJ/mol	NIST Webbook
hf	251.59	kJ/mol	Joback Method
hfs	323.00	kJ/mol	NIST Webbook
hvap	64.83	kJ/mol	Joback Method
log10ws	-3.15		Crippen Method
logp	3.684		Crippen Method
mcvol	158.060	ml/mol	McGowan Method
pc	2690.21	kPa	Joback Method
tb	633.00	K	NIST Webbook
tc	1029.51	K	Joback Method
tf	398.00 ± 1.00	K	NIST Webbook
tf	399.00	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	276.10	J/mol×K	323.00	NIST Webbook
hfust	21.70	kJ/mol	398.20	NIST Webbook
hfust	21.70	kJ/mol	398.20	NIST Webbook
hsubt	110.90 ± 1.70	kJ/mol	364.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.52070e+01
Coeff. B	-5.57270e+03
Coeff. C	-1.06713e+02
Temperature range (K), min.	480.23
Temperature range (K), max.	669.86

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
KDB:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1495
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C60093&Units=SI

Legend

chs:	Standard solid enthalpy of combustion
cps:	Solid phase heat capacity
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation at a given temperature
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

pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point