Amphetamine

Other names:

(.+/-.)-Benzedrine
(.+/-.)-Desoxynorephedrine
(.+/-.)-«alpha»-Methylphenethylamine
(.+/-.)-«alpha»-Methylphenylethylamine
(.+/-.)-«beta»-Phenylisopropylamine
(.+/-.)-Â«alphaÂ»-Methylphenethylamine
(.+/-.)-Â«alphaÂ»-Methylphenylethylamine
(.+/-.)-Â«betaÂ»-Phenylisopropylamine
(±)-Desoxynorephedrine
(±)-«alpha»-Methylphenethylamine
(±)-«alpha»-Methylphenylethylamine
(±)-«beta»-Phenylisopropylamine
(Â±)-Desoxynorephedrine
(Â±)-Â«alphaÂ»-Methylphenethylamine
(Â±)-Â«alphaÂ»-Methylphenylethylamine
(Â±)-Â«betaÂ»-Phenylisopropylamine
1-Methyl-2-phenylethylamine
1-Phenyl-2-aminopropane
1-Phenyl-2-propanamine
1-Phenyl-2-propylamine
3-Phenyl-2-propylamine
60-13-9
Actedron
Adderal
Adipan
Allodene
Amfetamine
Anorexide
Anorexine
Benzebar
Benzedrine
Benzeneethanamine, «alpha»-methyl-
Benzeneethanamine, «alpha»-methyl-, (.+/-.)-
Benzeneethanamine, «alpha»-methyl-, (±)-
Benzeneethanamine, Â«alphaÂ»-methyl-
Benzeneethanamine, Â«alphaÂ»-methyl-, (.+/-.)-
Benzeneethanamine, Â«alphaÂ»-methyl-, (Â±)-
Benzolone
DL-«alpha»-Methylphenethylamine
DL-Â«alphaÂ»-Methylphenethylamine

Desoxynorephedrine
Dexedrine
Elastonon
Fenopromin
Fenylo-izopropylaminyl
Finam
Isoamycin
Isoamyne
Isomyn
Mecodrin
Norephedrane
Norephedrine, deoxy-
Novydrine
Obesine
Oktedrin
Ortedrine
Percomon
Phenamine
Phenedrine
Phenethylamine, «alpha»-methyl-, (.+/-.)-
Phenethylamine, «alpha»-methyl-, (±)-
Phenethylamine, Â«alphaÂ»-methyl-, (.+/-.)-
Phenethylamine, Â«alphaÂ»-methyl-, (Â±)-
Phenylisopropylamine
Profamina
Propisamine
Psychedrine
Raphetamine
Rhinalator
Simpatedrin
Simpatina
Sympamine
Sympatedrine
Weckamine
dl-1-Phenyl-2-aminopropane
dl-Amphetamine
dl-Benzedrine
racemic-Desoxynor-ephedrine
«alpha»-Methylbenzeneethanamine
«alpha»-Methylbenzeneethaneamine
«beta»-Aminopropylbenzene
Â«alphaÂ»-Methylbenzeneethanamine
Â«alphaÂ»-Methylbenzeneethaneamine

	Â«betaÂ»-Aminopropylbenzene
Inchi:	InChI=1S/C9H13N/c1-8(10)7-9-5-3-2-4-6-9/h2-6,8H,7,10H2,1H3
InchiKey:	KWTSXDURSIMDCE-UHFFFAOYSA-N
Formula:	C9H13N
SMILES:	CC(N)Cc1ccccc1
Mol. weight [g/mol]:	135.21
CAS:	300-62-9

Physical Properties

Property code	Value	Unit	Source
gf	201.32	kJ/mol	Joback Method
hf	35.95	kJ/mol	Joback Method
hfus	14.78	kJ/mol	Joback Method
hvap	48.16	kJ/mol	Joback Method
ie	8.91 ± 0.14	eV	NIST Webbook
ie	8.99 ± 0.06	eV	NIST Webbook
log10ws	-2.24		Crippen Method
logp	1.576		Crippen Method
mcvol	123.890	ml/mol	McGowan Method
pc	3517.91	kPa	Joback Method
rinpol	1122.00		NIST Webbook
rinpol	1118.00		NIST Webbook
rinpol	1123.00		NIST Webbook
rinpol	1125.00		NIST Webbook
rinpol	1105.00		NIST Webbook
rinpol	1119.00		NIST Webbook
rinpol	1130.00		NIST Webbook
rinpol	1115.00		NIST Webbook
rinpol	1117.00		NIST Webbook
rinpol	1132.00		NIST Webbook
rinpol	1132.00		NIST Webbook
rinpol	1105.00		NIST Webbook
rinpol	1130.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1136.20		NIST Webbook
rinpol	1123.00		NIST Webbook
rinpol	1108.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1100.00		NIST Webbook
rinpol	1105.00		NIST Webbook

rinpol	1105.00		NIST Webbook
rinpol	1100.00		NIST Webbook
rinpol	1100.00		NIST Webbook
rinpol	1129.00		NIST Webbook
rinpol	1120.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1112.00		NIST Webbook
rinpol	1112.00		NIST Webbook
rinpol	1115.00		NIST Webbook
rinpol	1117.00		NIST Webbook
rinpol	1118.00		NIST Webbook
rinpol	1118.00		NIST Webbook
rinpol	1111.00		NIST Webbook
rinpol	1120.00		NIST Webbook
rinpol	1125.00		NIST Webbook
rinpol	1123.00		NIST Webbook
rinpol	1125.00		NIST Webbook
rinpol	1123.00		NIST Webbook
rinpol	1110.00		NIST Webbook
rinpol	1145.00		NIST Webbook
rinpol	1120.00		NIST Webbook
rinpol	1118.00		NIST Webbook
rinpol	1118.00		NIST Webbook
rinpol	1105.00		NIST Webbook
rinpol	1135.00		NIST Webbook
rinpol	1126.00		NIST Webbook
ripol	1587.00		NIST Webbook
ripol	1587.00		NIST Webbook
ripol	1581.00		NIST Webbook
ripol	1581.00		NIST Webbook
tb	476.20	K	NIST Webbook
tc	728.62	K	Joback Method
tf	285.87	K	Joback Method
vc	0.455	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	335.40	J/mol×K	691.20	Joback Method
cpg	271.70	J/mol×K	504.09	Joback Method
cpg	286.20	J/mol×K	541.51	Joback Method
cpg	299.78	J/mol×K	578.93	Joback Method
cpg	312.48	J/mol×K	616.35	Joback Method
cpg	324.34	J/mol×K	653.78	Joback Method
cpg	345.71	J/mol×K	728.62	Joback Method
hvapt	53.40	kJ/mol	343.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.16692e+01
Coeff. B	-2.41932e+03
Coeff. C	-1.33078e+02
Temperature range (K), min.	345.64
Temperature range (K), max.	513.61

Sources

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=C300629&Units=SI

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

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
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume