Cyclohexanemethanamine, 4-amino-«alpha»,«alpha»,4-trimethyl-

Other names: 1,8-diamino-p-menthane
1,8-p-menthanediamine
1-amino-1-methyl-4-(2-amino-2-propyl)cyclohexane
4-Amino-«alpha»,«alpha»,4-trimethylcyclohexanemethamine
Menthanediamine
USAF rh-4
p-menthane-1,8-diamine
p-menthane-1,8-diyldiamine

Inchi: InChI=1S/C10H22N2/c1-9(2,11)8-4-6-10(3,12)7-5-8/h8H,4-7,11-12H2,1-3H3

InchiKey: KOGSPLLRMRSADR-UHFFFAOYSA-N

Formula: C10H22N2

SMILES: CC1(N)CCC(C(C)(C)N)CC1

Mol. weight [g/mol]: 170.30

CAS: 80-52-4

Physical Properties

Property code	Value	Unit	Source
gf	180.31	kJ/mol	Joback Method
hf	-141.68	kJ/mol	Joback Method
hfus	11.24	kJ/mol	Joback Method
hvap	56.81	kJ/mol	Joback Method
log10ws	-2.75		Crippen Method
logp	1.631		Crippen Method
mcvol	160.860	ml/mol	McGowan Method
pc	2992.59	kPa	Joback Method
tb	585.15	K	Joback Method
tc	825.44	K	Joback Method
tf	398.44	K	Joback Method
vc	0.573	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	442.20	J/mol×K	585.15	Joback Method

cpg	462.29	J/mol×K	625.20	Joback Method
cpg	480.98	J/mol×K	665.25	Joback Method
cpg	498.46	J/mol×K	705.30	Joback Method
cpg	514.92	J/mol×K	745.34	Joback Method
cpg	530.54	J/mol×K	785.39	Joback Method
cpg	545.50	J/mol×K	825.44	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	389.70	K	1.30	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=C80524&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Measurement and modelling of the solubility of carbon dioxide in aqueous 1,8-p-menthane-diamine solution:	https://www.doi.org/10.1016/j.jct.2013.11.018

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