sec-Butylamine

Other names:	(.+/-.)-sec-Butylamine
	(RS)-2-aminobutane
	(RS)-sec-butylamine
	1-Methylpropanamine
	1-Methylpropylamine
	2-AB
	2-Aminobutane
	2-Aminobutane base
	2-Butanamine
	2-Butanamine, (.+/-.)-
	2-Butylamine
	Butafume
	Deccotane
	Frucote
	NSC 8030
	Propylamine, 1-Methyl-
	Secondary butylamine
	Tutane
	sec-Butanamine
	sec-C4H9NH2
Inchi:	InChI=1S/C4H11N/c1-3-4(2)5/h4H,3,5H2,1-2H3
InchiKey:	BHRZNVHARXXAHW-UHFFFAOYSA-N
Formula:	C4H11N
SMILES:	CCC(C)N
Mol. weight [g/mol]:	73.14
CAS:	33966-50-6

Physical Properties

Property code	Value	Unit	Source
gf	46.81	kJ/mol	Joback Method
hf	-97.38	kJ/mol	Joback Method
hfus	7.79	kJ/mol	Joback Method
hvap	34.75	kJ/mol	Joback Method
log10ws	-1.04		Crippen Method
logp	0.744		Crippen Method
mcvol	77.200	ml/mol	McGowan Method
pc	4233.04	kPa	Joback Method

tb	336.70	K	NIST Webbook
tc	549.17	K	Joback Method
tf	203.10	K	Joback Method
vc	0.282	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	138.58	J/mol×K	363.01	Joback Method
cpg	147.57	J/mol×K	394.04	Joback Method
cpg	156.20	J/mol×K	425.06	Joback Method
cpg	164.49	J/mol×K	456.09	Joback Method
cpg	172.44	J/mol×K	487.12	Joback Method
cpg	180.06	J/mol×K	518.14	Joback Method
cpg	187.35	J/mol×K	549.17	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.55051e+01
Coeff. B	-3.28970e+03
Coeff. C	-3.45250e+01
Temperature range (K), min.	250.70
Temperature range (K), max.	357.25

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=C33966506&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
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
vc:	Critical Volume

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