N-Butyl-tert-butylamine

Other names:	1-Butanamine, N-(1,1-dimethylethyl)-
	N-(tert-Butyl)-1-butanamine
	tert-Butyl-n-butyl-amine
	N-tert-butylbutylamine
Inchi:	InChI=1S/C8H19N/c1-5-6-7-9-8(2,3)4/h9H,5-7H2,1-4H3
InchiKey:	VACPZDQXUAOTFR-UHFFFAOYSA-N
Formula:	C8H19N
SMILES:	CCCCNC(C)(C)C
Mol. weight [g/mol]:	129.24
CAS:	16486-74-1

Physical Properties

Property code	Value	Unit	Source
gf	108.71	kJ/mol	Joback Method
hf	-163.73	kJ/mol	Joback Method
hfus	14.16	kJ/mol	Joback Method
hvap	38.54	kJ/mol	Joback Method
log10ws	-2.47		Crippen Method
logp	2.175		Crippen Method
mcvol	133.560	ml/mol	McGowan Method
pc	2619.09	kPa	Joback Method
rinpol	839.00		NIST Webbook
rinpol	839.00		NIST Webbook
tb	429.38	K	Joback Method
tc	608.37	K	Joback Method
tf	235.00	K	Joback Method
vc	0.507	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	281.35	J/mol×K	429.38	Joback Method
cpg	296.36	J/mol×K	459.21	Joback Method
cpg	310.65	J/mol×K	489.04	Joback Method

cpg	324.25	J/mol×K	518.88	Joback Method
cpg	337.19	J/mol×K	548.71	Joback Method
cpg	349.49	J/mol×K	578.54	Joback Method
cpg	361.18	J/mol×K	608.37	Joback Method

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=C16486741&Units=SI
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume