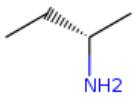
2-Butanamine, (S)-

Other names: (+)-2-Butylamine; (S)-(+)-sec-Butylamine; (S)-sec-butylamine; S-2-Butylamine; sec-Butylamine, (S)-.
InChI: InChI=1S/C4H11N/c1-3-4(2)5/h4H,3,5H2,1-2H3/t4-/m1/s1
InChI Key: BHRZNVHARXXAHW-SCSAIBSYSA-N
Formula: C4H11N
SMILES: CCC(C)N
Molecular Weight: 73.14
CAS: 513-49-5



Physical Properties

Property	Value	Unit	Source
$\Delta_f G°$	46.81	kJ/mol	Joback Method
$\Delta_f H°_{gas}$	-97.38	kJ/mol	Joback Method
$\Delta_{fus} H°$	7.79	kJ/mol	Joback Method
$\Delta_{vap} H°$	32.85	kJ/mol	NIST Webbook
$logP_{oct/wat}$	0.74		Crippen Method
P_c	4233.04	kPa	Joback Method
T_{boil}	336.20	K	NIST Webbook
T_{boil}	336.10	K	NIST Webbook
T_c	509.40	K	NIST Webbook
T_{fus}	203.10	K	Joback Method
V_c	0.28	m^3/kg-mol	Joback Method

Temperature Dependent Properties

Property	Value	Unit	Temperature (K)	Source
$C_{p,gas}$	138.58	J/mol×K	363.01	Joback Method
$\Delta_{vap} H$	29.92	kJ/mol	336.1	NIST Webbook

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method
NIST Webbook: http://webbook.nist.gov/cgi/inchi/InChI=1S/C4H11N/c1-3-4(2)5/h4H,3,5H2,1-2H3/t4-/m1/s1
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

$\mathbf{C_{p,gas}}$: Ideal gas heat capacity (J/mol×K).
$\mathbf{\Delta_f G°}$: Standard Gibbs free energy of formation (kJ/mol).
$\mathbf{\Delta_f H°_{gas}}$: Enthalpy of formation at standard conditions (kJ/mol).
$\mathbf{\Delta_{fus} H°}$: Enthalpy of fusion at standard conditions (kJ/mol).
$\mathbf{\Delta_{vap} H°}$: Enthalpy of vaporization at standard conditions (kJ/mol).
$\mathbf{\Delta_{vap} H}$: Enthalpy of vaporization at a given temperature (kJ/mol).
$\mathbf{\mathit{log}P_{oct/wat}}$: Octanol/Water partition coefficient .
$\mathbf{P_c}$: Critical Pressure (kPa).
$\mathbf{T_{boil}}$: Normal Boiling Point Temperature (K).
$\mathbf{T_c}$: Critical Temperature (K).
$\mathbf{T_{fus}}$: Normal melting (fusion) point (K).
$\mathbf{V_c}$: Critical Volume (m^3/kg-mol).