

# 4-sec-Butylaniline

<b>Other names:</b>	4-Amino-sec-butylbenzene Aniline, p-sec-butyl- Benzenamine, 4-(1-methylpropyl)- p-sec-Butylaniline
<b>Inchi:</b>	InChI=1S/C10H15N/c1-3-8(2)9-4-6-10(11)7-5-9/h4-8H,3,11H2,1-2H3
<b>InchiKey:</b>	NVVVQTNTLIAISI-UHFFFAOYSA-N
<b>Formula:</b>	C10H15N
<b>SMILES:</b>	CCC(C)c1ccc(N)cc1
<b>Mol. weight [g/mol]:</b>	149.23
<b>CAS:</b>	30273-11-1

## Physical Properties

Property code	Value	Unit	Source
gf	200.11	kJ/mol	Joback Method
hf	3.84	kJ/mol	Joback Method
hfus	16.98	kJ/mol	Joback Method
hvap	51.05	kJ/mol	Joback Method
log10ws	-2.71		Crippen Method
logp	2.782		Crippen Method
mcvol	137.980	ml/mol	McGowan Method
pc	3096.73	kPa	Joback Method
tb	531.95	K	Joback Method
tc	753.77	K	Joback Method
tf	309.66	K	Joback Method
vc	0.510	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	316.49	J/molxK	531.95	Joback Method
cpg	331.53	J/molxK	568.92	Joback Method
cpg	345.68	J/molxK	605.89	Joback Method
cpg	358.96	J/molxK	642.86	Joback Method
cpg	371.42	J/molxK	679.83	Joback Method

cpg	383.09	J/mol×K	716.80	Joback Method
cpg	394.01	J/mol×K	753.77	Joback Method

## Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	517.70	K	96.90	NIST Webbook

## Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.42580e+01
Coeff. B	-4.20048e+03
Coeff. C	-8.32500e+01
Temperature range (K), min.	383.92
Temperature range (K), max.	552.76

## Sources

<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C30273111&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C30273111&amp;Units=SI</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation

<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>pvap:</b>	Vapor pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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