2-Ethylbutylamine

Other names:	1-Amino-2-ethylbutane
	1-Butanamine, 2-ethyl-
	2-Ethylbutan-1-amine
	2-Ethylbutanamine
	Butylamine, 2-ethyl-
Inchi:	InChI=1S/C6H15N/c1-3-6(4-2)5-7/h6H,3-5,7H2,1-2H3
InchiKey:	MGWAGIQQTULHGU-UHFFFAOYSA-N
Formula:	C6H15N
SMILES:	CCC(CC)CN
Mol. weight [g/mol]:	101.19
CAS:	617-79-8

Physical Properties

Property code	Value	Unit	Source
gf	63.65	kJ/mol	Joback Method
hf	-138.66	kJ/mol	Joback Method
hfus	12.97	kJ/mol	Joback Method
hvap	39.20	kJ/mol	Joback Method
log10ws	-1.53		Crippen Method
logp	1.381		Crippen Method
mcvol	105.380	ml/mol	McGowan Method
pc	3345.11	kPa	Joback Method
rinpol	825.00		NIST Webbook
tb	408.77	K	Joback Method
tc	592.91	K	Joback Method
tf	225.64	K	Joback Method
vc	0.395	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	211.01	J/mol×K	408.77	Joback Method
cpg	222.78	J/mol×K	439.46	Joback Method
cpg	234.07	J/mol×K	470.15	Joback Method

cpg	244.89	J/mol×K	500.84	Joback Method
cpg	255.25	J/mol×K	531.53	Joback Method
cpg	265.17	J/mol×K	562.22	Joback Method
cpg	274.66	J/mol×K	592.91	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.77611e+01
Coeff. B	-4.44225e+03
Coeff. C	-5.47880e+01
Temperature range (K), min.	309.02
Temperature range (K), max.	411.61

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=C617798&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
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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