1-Propanamine, N-ethyl-

Other names:	Ethylpropylamine
	N,N-Ethylpropylamine
	N-Ethyl-n-propylamine
	N-Ethylpropanamine
	N-Ethylpropylamine
	Propylamine, N-ethyl-
Inchi:	InChI=1S/C5H13N/c1-3-5-6-4-2/h6H,3-5H2,1-2H3
InchiKey:	XCVNDBIXFPGMIW-UHFFFAOYSA-N
Formula:	C5H13N
SMILES:	CCCNCC
Mol. weight [g/mol]:	87.16
CAS:	20193-20-8

Physical Properties

Property code	Value	Unit	Source
gf	80.61	kJ/mol	Joback Method
hf	-93.06	kJ/mol	Joback Method
hfus	13.80	kJ/mol	Joback Method
hvap	33.16	kJ/mol	Joback Method
log10ws	-1.10		Crippen Method
logp	1.006		Crippen Method
mcvol	91.290	ml/mol	McGowan Method
pc	3522.09	kPa	Joback Method
rinpol	652.00		NIST Webbook
tb	343.40 ± 1.50	K	NIST Webbook
tc	534.22	K	Joback Method
tf	198.77	K	Joback Method
vc	0.350	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	162.67	J/mol×K	363.97	Joback Method
cpg	172.76	J/mol×K	392.35	Joback Method

cpg	182.49	J/mol×K	420.72	Joback Method
cpg	191.86	J/mol×K	449.10	Joback Method
cpg	200.89	J/mol×K	477.47	Joback Method
cpg	209.56	J/mol×K	505.85	Joback Method
cpg	217.91	J/mol×K	534.22	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.50898e+01
Coeff. B	-2.74718e+03
Coeff. C	-8.10510e+01
Temperature range (K), min.	266.64
Temperature range (K), max.	362.00

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C20193208&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

Joback Method: https://en.wikipedia.org/wiki/Joback_method

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