Hydrazine, ethyl-

Other names:	Ethylhydrazine
	C2H5NHNH2
	1-Ethylhydrazine
	N-Ethylhydrazine
	6629-60-3 (oxalate)
Inchi:	InChI=1S/C2H8N2/c1-2-4-3/h4H,2-3H2,1H3
InchiKey:	WHRIKZCFRVTHJH-UHFFFAOYSA-N
Formula:	C2H8N2
SMILES:	CCNN
Mol. weight [g/mol]:	60.10
CAS:	624-80-6

Physical Properties

Property code	Value	Unit	Source
gf	121.80	kJ/mol	Joback Method
hf	2.65	kJ/mol	Joback Method
hfus	11.23	kJ/mol	Joback Method
hvap	37.12	kJ/mol	Joback Method
ie	8.12 ± 0.05	eV	NIST Webbook
ie	9.20	eV	NIST Webbook
log10ws	-0.27		Crippen Method
logp	-0.530		Crippen Method
mcvol	59.000	ml/mol	McGowan Method
pc	5569.17	kPa	Joback Method
rinpol	643.00		NIST Webbook
rinpol	643.00		NIST Webbook
tb	367.86	K	Joback Method
tc	557.17	K	Joback Method
tf	248.22	K	Joback Method
vc	0.211	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	106.20	J/mol×K	367.86	Joback Method
cpg	112.86	J/mol×K	399.41	Joback Method
cpg	119.25	J/mol×K	430.96	Joback Method
cpg	125.38	J/mol×K	462.52	Joback Method
cpg	131.25	J/mol×K	494.07	Joback Method
cpg	136.87	J/mol×K	525.62	Joback Method
cpg	142.24	J/mol×K	557.17	Joback Method

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=C624806&Units=SI
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
ie:	Ionization energy
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