

Hydrazinecarboxylic acid, ethyl ester

Other names:	Carbamic acid, ethyl ester (Ethoxycarbonyl)hydrazide (Ethoxycarbonyl)hydrazine (Monocarbethoxy)hydrazine Carbethoxyhydrazine Ethyl carbazate Ethyl carbazinate Ethyl hydrazinecarboxylate N-(Carbethoxy)hydrazine N-(Ethoxycarbonyl)hydrazine 1-(Carbethoxy)hydrazine Carboethoxyhydrazine 1-(Ethoxycarbonyl)hydrazine Ethyl hydrazinocarboxylate NSC 2277 NSC 52663
Inchi:	InChI=1S/C3H8N2O2/c1-2-7-3(6)5-4/h2,4H2,1H3,(H,5,6)
InchiKey:	VYSYZMNHYOXGN-UHFFFAOYSA-N
Formula:	C3H8N2O2
SMILES:	CCOC(=O)NN
Mol. weight [g/mol]:	104.11
CAS:	4114-31-2

Physical Properties

Property code	Value	Unit	Source
gf	-103.70	kJ/mol	Joback Method
hf	-262.79	kJ/mol	Joback Method
hfus	16.61	kJ/mol	Joback Method
hvap	48.50	kJ/mol	Joback Method
log10ws	-0.53		Crippen Method
logp	-0.394		Crippen Method
mcvol	80.530	ml/mol	McGowan Method
pc	5175.72	kPa	Joback Method
tb	467.03	K	Joback Method
tc	666.62	K	Joback Method
tf	331.65	K	Joback Method
vc	0.291	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	171.09	J/mol×K	467.03	Joback Method
cpg	178.57	J/mol×K	500.30	Joback Method
cpg	185.77	J/mol×K	533.56	Joback Method
cpg	192.67	J/mol×K	566.83	Joback Method
cpg	199.29	J/mol×K	600.09	Joback Method
cpg	205.60	J/mol×K	633.36	Joback Method
cpg	211.62	J/mol×K	666.62	Joback Method
hfus	20.00	kJ/mol	224.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	382.20	K	2.90	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4114312&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

hfust:	Enthalpy of fusion at a given temperature
hvac:	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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.cheméo.com/cid/16-925-7/Hydrazinecarboxylic-acid-ethyl-ester.pdf>

Generated by Cheméo on 2024-04-25 20:02:59.662420844 +0000 UTC m=+16364628.582998159.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.