Hydrazinecarboxylic acid, methyl ester

Other names:	Carbazic acid, methyl ester
	(Methoxycarbonyl)hydrazine
	Carbomethoxyhydrazide
	Methyl carbazate
	Methyl hydrazinecarboxylate
	Methyl hydrazinocarboxylate
	Methyl hydrazinoformate
	Methoxy carbonyl hydrazide
Inchi:	InChI=1S/C2H6N2O2/c1-6-2(5)4-3/h3H2,1H3,(H,4,5)
InchiKey:	WFJRIDQGVSJLLH-UHFFFAOYSA-N
Formula:	C2H6N2O2
SMILES:	COC(=O)NN
Mol. weight [g/mol]:	90.08
CAS:	6294-89-9

Physical Properties

Property code	Value	Unit	Source
gf	-112.12	kJ/mol	Joback Method
hf	-242.15	kJ/mol	Joback Method
hfus	14.02	kJ/mol	Joback Method
hvap	46.28	kJ/mol	Joback Method
log10ws	-0.11		Crippen Method
logp	-0.784		Crippen Method
mcvol	66.440	ml/mol	McGowan Method
pc	5972.16	kPa	Joback Method
tb	444.15	K	Joback Method
tc	646.18	K	Joback Method
tf	320.38	K	Joback Method
vc	0.235	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	134.19	J/mol×K	444.15	Joback Method

cpg	140.19	J/mol×K	477.82	Joback Method
cpg	145.98	J/mol×K	511.49	Joback Method
cpg	151.57	J/mol×K	545.16	Joback Method
cpg	156.93	J/mol×K	578.83	Joback Method
cpg	162.07	J/mol×K	612.51	Joback Method
cpg	166.98	J/mol×K	646.18	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	381.20	K	1.60	NIST Webbook

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=C6294899&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
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