N-(2-Hydroxyethyl)lactamide

Other names:	2-Hydroxy-N-(2-hydroxyethyl)propanamide
	Incromectant LMEA
	Lactamide MEA
	Lactamide, N-(2-hydroxyethyl)-
	Lactic acid monoethanolamide
	Lipamide LMEA
	Mackamide LME
	Monoethanolamine lactic acid amide
	N-(«beta»-Hydroxyethyl)-2-hydroxypropionamide
	N-(«beta»-Hydroxyethyl)lactamide
	N-(Â«betaÂ»-Hydroxyethyl)-2-hydroxypropionamide
	N-(Â«betaÂ»-Hydroxyethyl)lactamide
	N-Hydroxyaethyllactamid
	NSC 11062
	Parapel LAM-100
	Propanamide, 2-hydroxy-N-(2-hydroxyethyl)-
	Schercomid LME-100
Inchi:	InChI=1S/C5H11NO3/c1-4(8)5(9)6-2-3-7/h4,7-8H,2-3H2,1H3,(H,6,9)
InchiKey:	RZCHTMXTKQHYDT-UHFFFAOYSA-N
Formula:	C5H11NO3
SMILES:	CC(O)C(=O)NCCO
Mol. weight [g/mol]:	133.15
CAS:	5422-34-4

Physical Properties

Property code	Value	Unit	Source
gf	-324.39	kJ/mol	Joback Method
hf	-515.38	kJ/mol	Joback Method
hfus	20.06	kJ/mol	Joback Method
hvap	72.88	kJ/mol	Joback Method
log10ws	0.48		Crippen Method
logp	-1.524		Crippen Method
mcvol	104.600	ml/mol	McGowan Method
pc	4890.21	kPa	Joback Method
tb	601.76	K	Joback Method
tc	774.06	K	Joback Method
tf	355.34	K	Joback Method

vc	0.389	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	266.13	J/mol×K	601.76	Joback Method
cpg	273.53	J/mol×K	630.48	Joback Method
cpg	280.58	J/mol×K	659.19	Joback Method
cpg	287.30	J/mol×K	687.91	Joback Method
cpg	293.68	J/mol×K	716.63	Joback Method
cpg	299.75	J/mol×K	745.35	Joback Method
cpg	305.50	J/mol×K	774.06	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	453.50 ± 2.50	K	0.01	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=C5422344&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Specific Heat Capacities of Two Functional Ionic Liquids and Two Functional Deep Eutectic Solvents for the Absorption of SO2:	https://www.doi.org/10.1021/acs.jced.7b00102

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