

Glycine, N-acetyl-

Other names:

2-(Acetylamino)acetic acid
2-Acetamidoacetic acid
Acetylaminoacetic acid
Acetylglycine
Acetylglycocoll
CH3CONHCH2COOH
Ethanoylaminoethanoic acid
N-acetylglycine
NSC 7605
acetamidoacetic acid
aceturic acid

Inchi:

InChI=1S/C4H7NO3/c1-3(6)5-2-4(7)8/h2H2,1H3,(H,5,6)(H,7,8)

InchiKey:

OKJIRPAQVSHGFK-UHFFFAOYSA-N

Formula:

C4H7NO3

SMILES:

CC(=O)NCC(=O)O

Mol. weight [g/mol]:

117.10

CAS:

543-24-8

Physical Properties

Property code	Value	Unit	Source
gf	-322.47	kJ/mol	Joback Method
hf	-449.81	kJ/mol	Joback Method
hfus	18.50	kJ/mol	Joback Method
hvap	61.11	kJ/mol	Joback Method
ie	9.80	eV	NIST Webbook
ie	9.40	eV	NIST Webbook
log10ws	0.44		Crippen Method
logp	-0.793		Crippen Method
mcvol	86.210	ml/mol	McGowan Method
pc	5320.16	kPa	Joback Method
rinpol	1382.20		NIST Webbook
tb	541.01	K	Joback Method
tc	727.20	K	Joback Method
tf	348.18	K	Joback Method
vc	0.326	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	192.24	J/mol×K	541.01	Joback Method
cpg	198.82	J/mol×K	572.04	Joback Method
cpg	205.07	J/mol×K	603.07	Joback Method
cpg	211.00	J/mol×K	634.11	Joback Method
cpg	216.62	J/mol×K	665.14	Joback Method
cpg	221.93	J/mol×K	696.17	Joback Method
cpg	226.95	J/mol×K	727.20	Joback Method
hsubt	127.00 ± 1.00	kJ/mol	389.00	NIST Webbook

Sources

Studies of volumetric and acoustic properties of trisodium citrate and sodium citrate in aqueous solutions, of N-acetyl glycine at different temperatures and acoustic behaviour of aqueous tetraethylammonium iodide solutions at different temperatures: Thermodynamic study of N-acetyl glycine in aqueous solution: Effect of N-acetyl glycine volumetric, acoustic and viscometric behaviour of 0.05-1.0 M in aqueous solutions study: Study of solute-solute and solute-solvent interactions of N-acetyl glycine in aqueous D-fructose solutions at different temperatures: Volumetric and ultrasonic studies of solute-solute and solutesolvent interactions of N-acetyl glycine in aqueous sucrose solutions at different temperatures: Volumetric, acoustic and viscometric behaviour of dipotassium hydrogen phosphate and disodium hydrogen phosphate in aqueous solution of N-acetyl glycine at different temperatures

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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
- hsubt: Enthalpy of sublimation at a given temperature
- 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

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