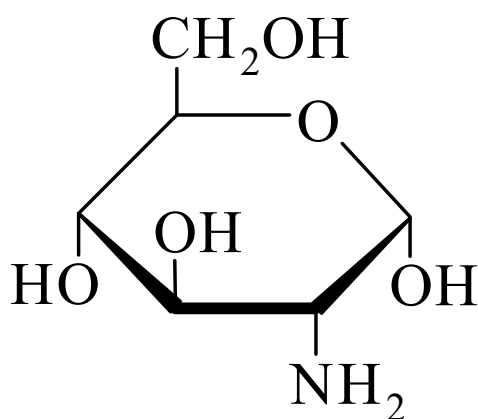




>>Entry Name: 2-Amino-2-deoxyglucose

Synonym(s): NSC 758



*$\alpha$ -D-Pyranose form*

Related CAS Registry Numbers(s): 38899-05-7 84868-34-8

Molecular Formula:  $C_6H_{13}NO_5$

Molecular Weight: 179.172

Accurate Mass: 179.079374

Percentage Composition: C 40.22%; H 7.31%; N 7.82%; O 44.65%

>>Variant: D-form

Synonym(s): Glucosamine, 9Cl, 8Cl. Chitosamine

CAS Registry Number: 3416-24-8

Molecular Formula:  $C_6H_{13}NO_5$

Molecular Weight: 179.172

Accurate Mass: 179.079374

Percentage Composition: C 40.22%; H 7.31%; N 7.82%; O 44.65%

Biological Source: Present in mucopolysaccharides and in polysaccharides found in bacteria, fungi, higher plants, invertebrates, vertebrates, antibiotics and UDP complexes.

Obt. comly. by hydrol. of seashells

Use/Importance: Inexpensive starting material for synthesis

Biological Use/Importance: Antiarthritic agent

pKa Value:  $pK_a$  7.75 (24°)

>>Derivative: 3-Sulfate

Molecular Formula:  $C_6H_{13}NO_8S$

Molecular Weight: 259.237

Accurate Mass: 259.036189

Percentage Composition: C 27.80%; H 5.05%; N 5.40%; O 49.37%; S 12.37%

Physical Description: Monohydrate

Optical Rotation:  $[\alpha]_D^{20} +54$  (c, 2.0 in  $H_2O$ )

>>Derivative: 6-Sulfate

Molecular Formula:  $C_6H_{13}NO_8S$

Molecular Weight: 259.237

Accurate Mass: 259.036189

Percentage Composition: C 27.80%; H 5.05%; N 5.40%; O 49.37%; S 12.37%

Optical Rotation:  $[\alpha]_D^{20} +66$  (c, 2.0 in  $H_2O$ )

>>Derivative: Oxime

CAS Registry Number: 21537-55-3

Molecular Formula:  $C_6H_{14}N_2O_5$

Molecular Weight: 194.187

Accurate Mass: 194.090273

Percentage Composition: C 37.11%; H 7.27%; N 14.43%; O 41.20%

Melting Point: Mp 127°

>>Derivative: Oxime; hydrochloride

CAS Registry Number: 54947-34-1

Melting Point: Mp 166°