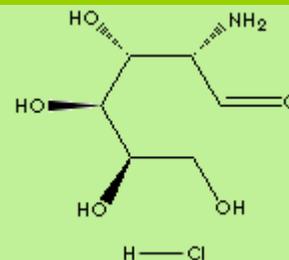


# D-GLUCOSAMINE HYDROCHLORIDE

## PRODUCT IDENTIFICATION

CAS NO.	66-84-2
EINECS NO.	200-638-1
FORMULA	C <sub>6</sub> H <sub>13</sub> NO <sub>5</sub> •HCl
MOL WT.	215.64
H.S. CODE	2932.99
TOXICITY	
SYNONYMS	Chitosamine hydrochloride;



2-Amino-2-deoxy-D-glucopyranose hydrochloride; Glucosamine hydrochloride; D-(+)-Glucosamine hydrochloride; Cosamin;

## DERIVATION

## CLASSIFICATION

## PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	white crystal
MELTING POINT	190 - 194 C
BOILING POINT	
SPECIFIC GRAVITY	
SOLUBILITY IN WATER	Soluble
pH	
VAPOR DENSITY	
AUTOIGNITION	
NFPA RATINGS	
REFRACTIVE INDEX	
FLASH POINT	
STABILITY	Stable under ordinary conditions

## APPLICATION

Glucosamine is the most abundant naturally occurring amino sugar in which one or more nonglycosidic hydroxyl groups are replaced by an amino or substituted amino group. Glucosamine is a glucose substituted at the 2 position. It is present in peptidoglycans and variety of complex polysaccharides such as blood group substances. It is generally acetylated (N-acetylglucosamine). It is the basic structural unit of chitin which is a linear unbranched homopolymer composed of N-acetyl-D-glucosamine residues in beta-linkage (1,4) like cellulose. Chitin is the principal constituent of arthropod exoskeletons to cover the surface of the body, found mainly in crab, lobster or shrimp shell. Chitin is also found in the cell walls of some fungi. Muramic acid is a compound consisting of glucosamine and lactic acid joined by an ether linkage. It is the characteristic polysaccharide composing bacterial cell walls. Chitosan is the de-acetylation form of chitin; a polysaccharide composed of repeating glucosamine units. It is used to absorb heavy metals in water treatment. Chondroitin is a glycosaminoglycan composed of a sulfated (C-4 or C-6) N-acetylgalactosamine residue linked to a glucuronic acid residue. It consists of repeating disaccharide units. It is abundant in connective tissues, particularly in the ground substance of blood vessels, bone, and cartilage. Chondroitin sulfate A is sulfated on C-4 position and called also chondroitin 4-sulfate to dominate the position of the sulfate group on the sugar, while Chondroitin sulfate C is chondroitin 6-sulfate. Chondroitin sulfate B is another name of dermatan sulfate which is sulfated on the C-4 position but also the C-5 of the uronic acid is under the epimerisation of glucuronic acid to iduronic acid. Glucosamine and chondroitin sulfate are being tested for potential benefit in osteoarthritis. They are stabilized with hydrochloride or sulfur to be used as

dietary or nutritional supplements. Glucosamine is believed to contribute to the pain relief of cartilage and structure rebuilding of cartilage in the joint.

**SALES SPECIFICATION**

APPEARANCE white white crystal

ASSAY 98.5 - 100.5%

HEAVY METALS 20ppm max

ARSENIC 1ppm max

IRON 10ppm max

SPECIFIC ROTATION +70° ~ +76°

RESIDUE ON IGNITION 0.1% max

LOSS DRYING 0.5% max

**TRANSPORTATION**

PACKING 25kgs in fiber drum

HAZARD CLASS not regulated

UN NO.

**OTHER INFORMATION**