

TECHNICAL DATA SHEET

D-Glucosamine Hydrochloride (80 Mesh)
Amino Sugar | Food & Health-Care Grade

This Technical Data Sheet is issued by KEEP INGREDIENTS CO. LTD for the evaluation of the product described herein. The supplier and the customer undertake to maintain the CONFIDENTIAL information contained or enclosed in this document.

1. TECHNICAL DATA SHEET

Product Description

D-Glucosamine Hydrochloride is an amino sugar produced by fermentation, followed by acidification, membrane filtration, hydrolysis & decolorization, concentration, crystallization, drying and sieving. It is a white crystalline powder used as an ingredient in dietary supplements and health-care products, particularly in formulations designed to support joint and cartilage health.

Product Information

Item	Information
Product name	D-Glucosamine Hydrochloride (80 Mesh)
Product source	Fermentation (microbial fermentation-derived)
CAS No.	66-84-2
Molecular formula	C6H14ClNO5
Product form	White crystalline powder
Assay	98.00-102.00%
Particle size	80 mesh
Bulk density	0.45-1.15 g/mL
Tapped density	0.55-1.25 g/mL
Applicable standard	USP
Batch No.	KYGLH2026052401
Shelf life	2 years
Packing	25 kg/drum
Storage	Preserve in tight, light-resistant containers
Country of origin	China



2. PRODUCT SPECIFICATION

2.1 Characters & Identification

Item	Standard
Description	White crystalline powder
Identification	(1) IR absorption; (2) Chloride & sulfate tests; (3) HPLC

2.2 Physical & Chemical Specifications

Item	Standard
Specific rotation (25 °C)	+70.00° to +73.00°
Assay	98.00-102.00%
Sulfate	≤ 0.24%
Loss on drying	≤ 0.5%
Residue on ignition	≤ 0.1%
pH	3.50-5.00
Chloride	≤ 17.0%
Mesh size	Meets requirement (80 mesh)
Sodium	No yellow to a non-luminous flame
Iron ion	≤ 10 ppm

2.3 Microbiological Specifications

Item	Standard
Total plate count	≤ 1000 CFU/g
Yeast & mold	≤ 100 CFU/g
E. coli	Negative/g
Salmonella	Negative/10 g
Staphylococcus aureus	Negative/g



3. PROCESS CHART

The product is manufactured by fermentation, followed by acidification, ceramic membrane filtration, plate & frame filtration, hydrolysis & decolorization, concentration & crystallization, drying and sieving. The mother liquor is recycled within the process.



4. CERTIFICATE OF ANALYSIS

Item	Data
Product name	D-Glucosamine Hydrochloride (80 Mesh)
Batch No.	KYGLH2026052401
Quantity	1,100 kg
Manufacturing date	2026.05.24
Expiry date	2028.05.23
Packing	25 kg/drum
Test basis	USP

4.1 Analytical Results

Item	Standard	Result
Description	White crystalline powder	Conform
Specific rotation (25 °C)	+70.00° to +73.00°	+71.53°
Residue on ignition	≤ 0.1%	0.05%
Organic volatile impurities	Meets requirement	Conform
Loss on drying	≤ 1.0%	0.04%
pH (2%, 25 °C)	3.0-5.0	3.88
Chloride	16.2-16.7%	16.37%
Iron	≤ 10 ppm	< 10 ppm
Heavy metal	≤ 10 ppm	< 10 ppm
Arsenic	≤ 3 ppm	< 3 ppm
Lead	≤ 3 ppm	< 3 ppm
Mercury	≤ 0.1 ppm	< 0.1 ppm
Cadmium	≤ 1 ppm	< 1 ppm
Bulk density	0.45-1.15 g/mL	0.61 g/mL
Tapped density	0.55-1.25 g/mL	0.88 g/mL
Assay	98.00-102.00%	99.73%
Total plate count	Max. 1000 CFU/g	Pass
Yeast & mold	Max. 100 CFU/g	Pass
Salmonella	Negative	Negative
E. coli	Negative	Negative
Staphylococcus aureus	Negative	Negative



5. NUTRITIONAL INFORMATION

Nutritional information per 100 g of D-Glucosamine Hydrochloride.

Test item	Unit	Test result
Energy	kcal/100 g	396
Carbohydrates	g/100 g	83
Fat	g/100 g	0
Protein	g/100 g	0
Water	g/100 g	0.1
Sugars	g/100 g	0
Sodium	g/100 g	0



6. APPLICATIONS

D-Glucosamine Hydrochloride is a naturally occurring amino sugar widely used as an ingredient in dietary supplements and health-care products, particularly in formulations designed to support joint and cartilage health. It is commonly combined with chondroitin sulfate in joint-support supplement formulations.

Field	Typical use
Dietary supplements	Joint and cartilage health support formulations (capsules, tablets, powders)
Health-care products	Formulations for joint/cartilage health positioning

Note: end-users shall confirm final-formula compliance, appropriate usage dosage and labelling requirements under the regulations of the country of use.

7. PRODUCT STATEMENTS

7.1 Non-Irradiation / Non-Ionized Statement

NON-IRRADIATION / NON-IONIZED STATEMENT

We hereby certify that the product has not been sterilized by ionizing radiation at any point during the entire manufacturing process and therefore is in full compliance with the relevant legislated regulations, Directives 1999/2/EC & 1999/3/EC, concerning foods and food ingredients treated with ionizing radiation.

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7.2 Heavy Metals Statement

HEAVY METALS STATEMENT

According to the supplied Certificate of Analysis, the heavy metal content of this product is: arsenic (As) < 3 ppm, lead (Pb) < 3 ppm, mercury (Hg) < 0.1 ppm and cadmium (Cd) < 1 ppm.

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7.3 Country of Origin

COUNTRY OF ORIGIN

The product is produced and packaged in China. Country of origin: China.

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7.4 Expected Usage

EXPECTED USAGE

The expected usage of this product is its incorporation as an ingredient in dietary supplements and health-care products, subject to the regulations of the country of use.

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8. HANDLING, STORAGE & TRANSPORT

Item	Information
Storage	Preserve in tight, light-resistant containers; store in a cool and dry place, away from incompatible materials.
Handling	Ensure good ventilation at the workplace; wash thoroughly after handling.
Transport	Keep dry and away from direct sunlight; avoid high temperature and humidity.
Hazard classification	Not classified as hazardous according to GHS (physical, health and environmental hazards: not classified).
Transport regulation	Not regulated as dangerous goods (DOT / IATA / IMDG).
Shelf life	2 years (unopened packaging).
Packaging	25 kg/drum.

Safety notes: This product is a food / health-care raw material and not a medicine. No occupational exposure limit (PEL/TLV) has been established for this substance. A Safety Data Sheet (SDS) is available upon request. Keep out of reach of children.

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Authorized signature & company stamp

This Technical Data Sheet is issued by KEEP INGREDIENTS CO. LTD and is valid together with the supplied Certificate of Analysis. The information given is based on our knowledge of the product at the time of publication and is given in good faith; it does not exempt the user from applying the regulations governing the use, storage and labelling of the product in their own country. A Material Safety Data Sheet (MSDS) is available upon request.

