KEEP INGREDIENTS CO. LTD

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TECHNICAL DATA SHEET

Glucosamine Sulfate Potassium Chloride (Glucosamine Sulfate 2KCl)

1. PRODUCT DESCRIPTION

Glucosamine Sulfate Potassium Chloride (glucosamine potassium sulfate) is the potassium chloride salt of glucosamine sulfate, with the molecular formula C6H12NKO8S and CAS No. 31284-96-5. It can be used in medicine and health care products. It is used to repair joint diseases, protect joints, and combined with chondroitin sulfate it has an analgesic effect. The product is supplied as a white crystalline powder passing through 80 mesh.

2. PRODUCT INFORMATION

Item	Information
Product name	Glucosamine Sulfate 2KCl (Glucosamine Sulfate Potassium Chloride)
Molecular formula	C6H12NKO8S
CAS number	31284-96-5
Description	White crystalline powder
Mesh size	80 mesh
Country of origin	China
Shelf life	24 months
Packing	25 kg per drum
Storage	Preserve in tight, light-resistant containers

3. PRODUCT SPECIFICATION

Item	Specification	Standard
Description	White Crystalline Powder	USP
Identification	(1) IR absorption; (2) Chloride, potassium, sulfate test; (3) HPLC	USP
Specific rotation (25 °C)	+47.00° – +53.00°	USP
Assay	98.00 – 102.00%	USP
Sulfate	15.5% – 16.5%	USP
Loss on drying	≤ 0.5%	USP
Residue on ignition	26.50 – 31.00%	USP
pH	3.50 – 5.00	USP
Chloride	11.2% – 12.8%	USP
Mesh size	Pass through 80 mesh	USP
Sodium	No yellow to a nonluminous flame	USP
Arsenic	≤ 3 ppm	USP

Item	Specification	Standard
Total plate count	≤ 1,000 cfu/g	USP
Yeast & mould	≤ 100 cfu/g	USP
E. coli	Negative / g	USP
Salmonella	Negative / 10 g	USP
Staphylococcus aureus	Negative / g	USP

4. CERTIFICATE OF ANALYSIS

Field	Detail
Product	Glucosamine Sulfate 2KCl, 80 mesh
Batch No.	KYGSK2026041901
Quantity	2600 kg
Manufacture date	2026/04/19
Expiry date	2028/04/18
Packing	25 kg / drum
Report date	2026/05/02

Item	USP Standard	Result
Description	White Crystalline Powder	White Crystalline Powder
Identification (IR absorption)	Complies	Complies
Identification (Chloride, potassium, sulfate test)	Complies	Complies
Identification (HPLC)	Complies	Complies
Specific rotation (25 °C)	+47.00° – +53.00°	+50.26°
Assay	98.00 – 102.00%	99.96%
Sulfate	15.5% – 16.5%	15.86%
Loss on drying	≤ 0.5%	0.03%
Residue on ignition	26.50 – 31.00%	29.27%
pH	3.50 – 5.00	4.73
Chloride	11.2% – 12.8%	11.74%
Mesh size	Pass through 80 mesh	Pass through 80 MESH
Sodium	No yellow to a nonluminous flame	Confirm
Arsenic	≤ 3 ppm	< 3 ppm
Total plate count	≤ 1,000 cfu/g	40 cfu/g
Yeast & mould	≤ 100 cfu/g	10 cfu/g
E. coli	Negative / g	Negative / g
Salmonella	Negative / 10 g	Negative / 10 g
Staphylococcus aureus	Negative / g	Negative / g

5. PROCESS FLOW

1. Seed cultivation
2. Fermentation
3. Acidification
4. Ceramic membrane filtration
5. Concentration and extraction
6. Hydrolysis and decolorization
7. Concentration and crystallization
8. Drying
9. Mixing

10. Sieving
11. Packaging and warehousing

6. NUTRITIONAL INFORMATION

Nutrient	Per 100 g
Energy	284 kcal
Carbohydrates	60 g
Fat	0 g
Protein	0 g
Water	0.1 g
Sugars	0 g
Potassium	12.55 g

7. STATEMENTS AND COMPLIANCE

Arsenic. The product meets the limit for arsenic (≤ 3 ppm), with a result of < 3 ppm in the supplied Certificate of Analysis.

Microbiological. The product meets the microbiological limits (total plate count ≤ 1,000 cfu/g, yeast & mould ≤ 100 cfu/g, E. coli negative, Salmonella negative, Staphylococcus aureus negative).

Hazard classification. According to the supplied Safety Data Sheet, the product is not classified as a physical, health or environmental hazard, and is not classified as dangerous goods for transport (DOT, IATA, IMDG).

Carcinogen status. According to the supplied Safety Data Sheet, the product is not listed by IARC, the U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) or the U.S. National Toxicology Program (NTP) Report on Carcinogens.

Statements above are transcribed from the supplied Certificate of Analysis and Safety Data Sheet.

8. STORAGE AND TRANSPORTATION

- Preserve in tight, light-resistant containers.
- Shelf life: 24 months under the above conditions and in its original packaging.
- Packing: 25 kg per drum.
- Transport: not regulated as dangerous goods (DOT, IATA, IMDG).

