1. SUBSTANCE/MIXTURE AND COMPANY IDENTIFICATION

Product Code

MB-G4883

Product Name

X-Gluc Sodium Salt (=X-GlcA)

Product Typology

Dehydrated substance for microbiology or botany.

Company : Kisan Bio Co., Ltd.

2F, Kisan B/D,11, Yangjaecheon-ro 31-gil, SeoCho-Gu, Seoul #137-890 Korea(South)

Telephone : +82-2-529-2282

Fax : +82-2-529-2284 E-mail address : Kisan@Kisanbio.com

Emergency Phone : +82-2-529-2282

2. HAZARDS IDENTIFICATION

GHS Classification of the substance or mixture

Any hazardous substance or mixture according to GHS (Globally Harmonized System) does not apply.

GHS Label elements

Pictogram	none
Signal word	none
Hazard statement(s)	none
Precautionary statement(s)	none
Supplemental Hazard Statement(s)	none

Other hazards

The product isn't classifiable as dangerous preparation.

3. COMPOSITION INFORMATION ON INGREDIENTS

Mixtures

Name	CAS No.	EC No.	Classification	Content
X-Gluc Sodium Salt (=X- GlcA)	129541-41- 9	-	-	100%



4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration. In case of skin contact Wash off with soap and plenty of water. In case of eye contact Flush eyes with water as a precaution. If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Most important symptoms and effects, both acute and delayed No data available. Indication of any immediate medical attention and special treatment needed No data available. 5.FIREFIGHTING MEASURES

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special hazards arising from the substance or mixture No data available. Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic moisture sensitive.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Management factor

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical form Powder. Color No data available. Odour No data available. Ph No data available. Melting point/freezing point No data available. Initial boiling point and boiling range No data available. Flash point No data available. **Evaporation rate** No data available. Flammability (solid, gas) No data available. Vapour density No data available. Water solubility No data available.



10. STABILITY AND REACTIVITY

Chemical stability No data available. Possibility of hazardous reactions No data available. Conditions to avoid No data available. Incompatible materials Strong oxidizing agents. Hazardous decomposition products In case of fire hazardous decomposition products are generated. - Carbon dioxide, nitrogen oxides, sulfur oxides, hydrogen chloride gas, sodium oxide, iron Oxides.

Other decomposition products - no data available.

11. TOXICOLOGICAL INFORMATION

Potential health effects

Inhalation : May be harmful if inhaled. May cause respiratory tract irritation. Ingestion : May be harmful if swallowed. Skin : May be harmful if absorbed through skin. May cause skin irritation. Eyes : May cause eye irritation. Acute toxicity No data available. Skin corrosion/irritation No data available. Serious eye damage/eye irritation No data available. Respiratory or skin sensitisation No data available. Germ cell mutagenicity No data available. Carcinogenicity IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. **Reproductive toxicity** No data available. Specific target organ toxicity - single exposure No data available. Specific target organ toxicity - repeated exposure No data available. Aspiration hazard No data available.

12. ECOLOGICAL INFORMATION

Toxicity No data available. Persistence and degradability No data available. Bioaccumulative potential No data available. Mobility in soil No data available.

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Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

Methods of disposal

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

No data available.

15. REGULATORY INFORMATION

Occupational Health and Safety Act

Hazardous substances subject to authorization - Korea - Not relevant.
Manufacturing, including the prohibition of hazardous substances - Not relevant. **Toxic Chemicals Control Act**Toxic (Toxic Chemicals Control Act Article 19) - Not relevant.
Observed material (Toxic Chemicals Control Act Article 31) - Not relevant.
Restricted Toxic (Toxic Chemicals Control Act Article 32 & 33) - Not relevant.
Prohibited substances (Toxic Chemicals Control Act Article 32 & 33) - Not relevant.
Safety Control of Dangerous Substances Act
Not relevant.
Wastes Control Act
Surveyed chemical emissions - Not relevant.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Kisan Bio Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

First publication: 01.12.2003 Revision number: rev. 0.1

