


Material Safety Data Sheet		
Trehalose		
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1. Chemical Product and Company Identification

INCI name: Trehalose

CAS No.: 6138-23-4

Chemical structure: $C_{12}H_{22}O_{11} \cdot 2H_2O$

Trade name: Yeser® Trehalose

Product application: Widely used as a moisturizing agent various skin care and hair care products.

Supplier name: GUANGZHOU YESER CHEMICALS CO., LTD

Supplier address: Room 903-05, Building E, Longxi Center, No.18 Qide Road, Guangzhou City, China

Website: yeserchem.com **E-mail:** info@yeserchem.com

Contact number: +86-20- 86213761 400-0768-668

Emergency contact number: +86-20- 86213761

2. Hazards Identification

GHS Classification

Physical Hazards: Not applicable

Others: Not applicable, classification not possible, or not classified

Symbols: No symbol

Signal Words: No signal word

GHS Precautionary Statements

Prevention: No precautionary phrases.

Response: No precautionary phrases.

Storage: No precautionary phrases.

Disposal: No precautionary phrases.

Other Hazards which do not result in classification: None

3. Composition/Information on Ingredients


Component	CAS NO.	Percentage %
Trehalose	6138-23-4	≥98.0

4. First aid Measures

General Information: Not expected to be a health hazard when used under normal conditions.

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact: Immediately take off all contaminated clothing. Wash areas thoroughly with water.

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Eye Contact: Immediately flush eyes with a sufficient amount of water. Remove contact lenses if easy to do so. Continue rinsing.

Ingestion: If material is swallowed in large amounts, get medical attention.

Consult a doctor, if symptoms develop or persist after taking the measures above.

5. Fire-fighting Measures

Clear fire area of all non-emergency personnel.

Extinguish Media: Dry chemical, foam, carbon dioxide, water fog.

Unsuitable Extinguishing Media: No information

Special Fire Fighting: Position upwind. Keep unnecessary personnel away. Move containers out of hazard area if safe to do so. Keep the containers cool by spraying water if exposed to heat or fire. Cool containers with flooding quantities of water until well after until well after the fire is out.

Protection for Fire Fighter: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes, following Chapter 8.

6. Accidental Release Measures

Avoid contact with spilled or released material. For guidance on selection of personal protective equipments, see Chapter 8. See Chapter 13 for information on disposal. Observe the relevant local and international regulations.

Personal Precautions: Use personal protection recommended in Chapter 8. Avoid breathing mist and contact with skin and eyes.

Environment Procedures: Prevent entry into ditches, sewers and waterways.

Containment and Cleanup: Sweep up the spill and dispose of in general trash. Wash residual with water. Spill area can be washed with water for approved disposal. Follow all regulatory requirements for non-hazardous waste disposal.

7. Handling and storage


Handling: Use in a well ventilated place. If necessary, use personal protection recommended in Chapter 8. Wash thoroughly after handling. When handling, do not eat, drink or smoke.

Coloration and decomposition may occur by moisture absorption.

Storage: Keep container tightly closed. Preferably store at room temperature in a clean, odor free and dry area. Keep securely closed when not in use. Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/personal protection

Exposure Limit Value: Not set because of the high safety.

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Exposure Controls: No specific controls are needed. If necessary, the following personal protective equipment and materials are applied.

Personal Protective Equipment and Materials (if necessary)

Respiratory Protection: If ventilation is not sufficient to effectively remove and prevent buildup of dusts, appropriate respiratory protection should be provided.

Hand Protection: Wear impervious gloves for prolonged contact.

Eye/Face Protection: Wear appropriate eye protection.

Skin Protection: Wear impervious apron and/or boots for skin protection in case scattering.

9. Physical and chemical properties

Appearance: White crystalline powder

Odor: Odorless

Content (%): ≥ 98.0

pH value(30% aqueous solution, 25°C): 5.0~6.7

Scorch residue (%): ≤ 0.05

Dry weight loss (%): ≤ 1.5

Color in solution: ≤ 0.100

Turbidity: ≤ 0.05

Water solubility: Easily soluble

10. Stability and reactivity

Chemical Stability: Stable under ordinary storage conditions.

Possibility of Hazardous Reactions: Not likely to occur.

Conditions to Avoid: Avoid accumulation of airborne dusts. Avoid hot and humid storage.

Materials to Avoid: No data available

Hazardous Decomposition Products: No data available


11. Toxicological information

Acute Toxicity: LD50 > 16g/kg-bw in male or female rats by oral administration.

Subacute Toxicity: No-toxic-effect-level of 50,000 ppm after 13 weeks in feed of mice (7.27g/kg-bw/day for males and 9.27g/kg-bw/day for females).

Skin Corrosion/Irritation: No dermal irritation was observed to intact rabbit skin following a single semi-occlusive application of Trehalose.

Serious Eye Damage/Irritation: No irritation in rabbit eyes given a single dose of a volume of 0.1 mL of approximately 90% trehalose solution. It elicited transient, very slight to well-defined irritation, resolving completely by two days after treatment.

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Respiratory or skin sensitization: No dermal irritation or sensitization was observed. Trehalose water solution (30%) was exclusively applied to the skin of 53 human subjects in accordance with a modified Draize assay.

Germ Cell Mutagenicity: No mutagenicity (mouse micronucleus and CHO chromosome aberration assays)

[**Reference data:** No mutagenicity (AMES test)]

Carcinogenicity: No data available

Reproductive Toxicity: No trehalose-associated toxicity was reported.

Two generations of male and female rats were fed a maximum of 10% Trehalose in the diet.

No maternal or developmental toxicity was noted.

Trehalose was given at up to 10% of the diet to mated female rats and rabbits. The NOAEL was 6.94g/kg-bw/day in rats and 1.99g/kg-bw/day in rabbits.

STOT – Single Exposure: No data available

STOT – Repeated Exposure: No data available

Aspiration Hazard: No data available

12. Ecological information Ecotoxicity

Acute aquatic toxicity: No data available

Chronic aquatic toxicity: No data available

Biodegradability: No data available

Bioaccumulation: No data available

Mobility in soil: No data available

Hazardous to the ozone layer: No data available

Other Hazardous effects: No data available

13. Disposal considerations

Comply with each local regulation.

Follow all regulatory requirements for non-hazardous waste disposal when dump this material into sewers, on the ground or into any body of water.

14. Transport information

Ground transportation: Not classified as dangerous good under transport regulations.


Shipping IMDG: Not classified as dangerous good under transport regulations.

Air transport IATA DGR: Not classified as dangerous good under transport regulations.

15. Regulatory Information

The product is not subject to classification according to the sources of literature known to us.

Please refer to national measures that may be relevant.

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16. Other Information

Further information

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IMPORTANT: while the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by our company hereunder are given gratis and we assume no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk.

END OF DATA SHEET