



# Material Safety Data Sheet

Nisin

## 1. Chemical Product & Company Identification

**Product Name:** Nisin  
**Company:** Shandong Freda  
biotechnology Co., Ltd  
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county, Linyi city, Shandong  
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**Emergency No.:** +86-531-81213308  
**Email:** mfreda@fredabiotech.com  
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## 2. Composition/Information on Ingredients

**Product Name:** Nisin (min. 2.5%)  
**E-number:** E234  
**CAS No.:** 1414-45-5  
**Molecular:**  $C_{143}H_{228}O_{37}N_{42}S_7$   
**Ingredient:** Nisin, NaCl

## 3. Hazards Identification

**Hazards categories:** Not applicable

## 4. First Aid Measures

**Eye Contact:** Flush eyes with plenty of water  
for at least 15 minutes.  
**Skin Contact:** Flush skin with plenty of water or  
with a disinfectant soap.  
**Inhalation:** Move to fresh air.  
**Ingestion:** Wash out mouth with water.  
**Note:** If necessary, get medical  
attention.

## 5. Fire Fighting Measures

**Extinguishing media:** Use dry chemical powder, water  
spray, dry chemical powder or  
foam.  
**Protective equipment:** Wear shell-contained breathing  
apparatus and protective  
clothing to prevent contact with  
skin and eyes.

## 6. Accidental Release Measures

**Procedures of personal precautions: Methods for cleaning up:** Use appropriate personal  
protection. Prevent forming of  
dust clouds.  
Sweep up with spade and  
transfer to a dry, clean, lidded  
container for disposal. Avoid  
raising dust. Wash spill site after  
material pickup is complete.

## 7. Handling and storage

**Handling precaution:** Wear suitable protective  
clothing and chemical safety  
gloves. In case of insufficient  
ventilation, wear suitable  
respiratory equipment. Wash  
thoroughly after handling. Keep  
away from incompatibles or  
ignition sources, heat and flame.  
**Storage:** Store in a cool, well-ventilated  
area and keep in a tightly closed  
container. Keep away from  
direct sunlight



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## 8. Exposure Controls/Personal Protection

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

**Personal Protection:**

**Respiratory:** Wear dust mask if needed.

**Eye:** Goggles.

**Clothing:** Protective clothing.

**Hand:** Chemical-resistant gloves.

## 9. Physical and Chemical Properties

**Appearance:** Light brown powder

**Odor:** Odorless

**Solubility:** Soluble in water

## 10. Stability and Reactivity

**Stability:** Stable under normal conditions as recommended.

**Conditions to avoid:** None

**Hazardous decomposition products:** None

## 11. Toxicological Information

**Toxicity data:** Oral Rat LD<sub>50</sub> 9.26 g/kg (male), LD<sub>50</sub> 6.81g/kg (female).

**Irritation Data:** Maybe cause eyes and skin mild irritation.

## 12. Ecological Information

No data available.

## 13. Disposal Considerations

**Disposal:** Dispose in accordance with national, state and local environmental control regulations.

## 14. Transport Information

**DOT Class:** **Hazard** Not hazardous for transport.

**IATA:** Not hazardous for air transport.

**IMO** Not hazardous for sea transport.

## 15. Regulatory Information

**Regulation:** Not classified as dangerous according to EU-directive 91/155

## 16. Other Information

**Warning:** This product is a chemical substance and is intended to be used by persons having chemical knowledge and skill, at their own discretion and risk.

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