

Material Safety Data Sheet (MSDS)

Product Name: Sodium Saccharin

MSDS Generate Date: 20-05-2017

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Supplier:

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1. Identification of the Substance and Company

Product Name: Sodium Saccharin

Chemical Name: Sodium Saccharin

Synonyms: Saccharin Sodium, Sodium o-Benzenesulfimide

CAS Number: 128-44-9

Molecular Formula: $C_7H_4NNaO_3S$

Molecular Weight: 205.17 g/mol

Recommended Use:

High-intensity sweetener used in pharmaceuticals, nutraceuticals, food and beverage products, oral care products, tabletop sweeteners, and personal care formulations.

2. Hazard Identification

GHS Classification: Sodium Saccharin is **not classified as hazardous** under the Globally Harmonized System (GHS) under normal conditions of handling and use.

Potential Health Effects:

Inhalation: Dust may cause temporary irritation of the nose, throat, and respiratory tract.

Skin Contact: Prolonged or repeated contact may cause mild irritation or dryness in sensitive individuals.

Eye Contact: Dust may cause temporary redness, watering, and mechanical irritation.

Ingestion: Low acute toxicity. Large quantities may cause mild gastrointestinal discomfort such as nausea or diarrhea.

Environmental Hazards: No significant environmental hazards are expected under normal conditions of use.

Precautionary Statements:

- Avoid generating and inhaling dust.
- Avoid contact with eyes.
- Maintain good industrial hygiene.
- Wash hands thoroughly after handling.
- Keep container tightly closed.

3. Composition / Information on Ingredients

Chemical Name: Sodium Saccharin

CAS Number: 128-44-9

Molecular Formula: C₇H₄NNaO₃S

Chemical Family: Artificial Sweetener

Purity: Typically 99.0% minimum (depending on grade)

The product consists primarily of highly purified sodium saccharin. Minor residual moisture and trace manufacturing impurities, if present, remain within applicable quality specifications.

4. First Aid Measures

Inhalation: Move the affected person to fresh air. If irritation persists or breathing becomes difficult, obtain medical attention.

Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing if necessary.

Eye Contact: Immediately rinse eyes with plenty of clean water for at least 15 minutes while holding eyelids open. Seek medical attention if irritation continues.

Ingestion: Rinse mouth with water. Drink plenty of water. Seek medical advice if large quantities have been ingested or symptoms develop.

Most Important Symptoms: Mild eye irritation, Mild respiratory irritation from dust, Temporary gastrointestinal discomfort.

5. Fire Fighting Measures

Suitable Extinguishing Media: Water spray, Carbon dioxide (CO₂), Dry chemical powder, Foam.

Unsuitable Extinguishing Media: High-pressure water jet directed at the powder.

Fire Hazards: Product is combustible only under severe fire conditions. Fine dust may present a dust explosion hazard if dispersed in air in sufficient concentrations.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, sulfur oxides, and nitrogen oxides.

Protective Equipment: Firefighters should wear self-contained breathing apparatus (SCBA) and full protective clothing.

6. Accidental Release Measures

Personal Precautions:

- Avoid creating airborne dust.
- Wear suitable personal protective equipment.
- Ensure adequate ventilation.

Environmental Precautions: Prevent excessive quantities from entering drains, sewers, or natural waterways.

Cleanup Methods: Sweep or vacuum carefully using suitable equipment that minimizes dust formation. Place recovered material into appropriate containers for reuse or disposal.

7. Handling and Storage

Handling

- Avoid breathing dust.
- Avoid contact with eyes.
- Use good industrial hygiene practices.
- Wash thoroughly after handling.

Storage

Store in tightly closed original containers in a cool, dry, clean, and well-ventilated place.

Protect from moisture, direct sunlight, excessive heat, and incompatible substances.

8. Exposure Controls / Personal Protection

- **Engineering Controls:** Provide adequate ventilation and local exhaust where dust may be generated.

Personal Protective Equipment

- **Respiratory Protection:** Dust mask or approved particulate respirator where airborne dust exists.
- **Eye Protection:** Safety glasses or chemical safety goggles.
- **Hand Protection:** Protective gloves.
- **Skin Protection:** Suitable protective clothing.

9. Physical and Chemical Properties

Appearance: White crystalline powder or granules

Odor: Odorless or faint characteristic odor

Taste: Intensely sweet

Physical State: Solid

pH (10% Solution): Approximately 6.0–8.0

Melting Point: Decomposes on heating (no true melting point)

Boiling Point: Not applicable

Bulk Density: Varies depending on grade

Specific Gravity: Approximately 0.83–1.00 (bulk)

Solubility: Freely soluble in water; slightly soluble in ethanol

Flash Point: Not applicable

Auto-Ignition Temperature: Not determined

Explosive Properties: Dust may form explosive mixtures with air under certain conditions

Oxidizing Properties: None

Vapor Pressure: Not applicable

Vapor Density: Not applicable

10. Stability and Reactivity

Reactivity: Stable under recommended storage conditions.

Chemical Stability: Stable under normal conditions of handling and storage.

Conditions to Avoid: Excessive heat

- Moisture
- Dust accumulation

Incompatible Materials: Strong oxidizing agents and strong acids.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, sulfur oxides, and nitrogen oxides.

11. Toxicological Information

Acute Toxicity: Low acute toxicity under normal conditions of use.

Skin Irritation: May cause slight irritation after prolonged contact.

Eye Irritation: Dust may cause temporary irritation.

Respiratory Effects: Dust may cause irritation of the respiratory tract.

Sensitization: Not expected to cause skin sensitization.

Carcinogenicity: Not classified as carcinogenic by IARC, NTP, or OSHA.

Mutagenicity: No known mutagenic effects.

Reproductive Toxicity: No known reproductive hazards under intended conditions of use.

12. Ecological Information

Ecotoxicity: No significant adverse ecological effects are expected when handled appropriately.

Persistence and Degradability: Expected to degrade gradually under environmental conditions.

Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility: Readily soluble in water and may disperse in aquatic environments.

13. Disposal Considerations

Dispose of unused product, contaminated packaging, and waste materials in accordance with applicable local, regional, and national regulations.

Avoid unnecessary release into drains, sewers, or surface waters.

14. Transport Information

Sodium Saccharin is not classified as dangerous goods under ADR/RID, IMDG, IATA, or other major international transport regulations. The product presents no significant transportation hazards when packaged and handled correctly. However, as a fine powder, precautions should be taken to prevent dust generation, moisture absorption, contamination, and package damage during transportation.

UN Number: Not regulated.

UN Proper Shipping Name: Not regulated.

Transport Hazard Class: Not regulated.

Packing Group: Not regulated.

Environmental Hazard: Not classified as environmentally hazardous.

Marine Pollutant: No.

Road Transport (ADR/RID): The product is not regulated as dangerous goods for road or rail transport. Transport in tightly sealed HDPE bags, fiber drums, or approved moisture-resistant containers. Protect packaging from rain, excessive humidity, contamination, and physical damage throughout transportation.

Sea Transport (IMDG): Sodium Saccharin is not regulated under the International Maritime Dangerous Goods (IMDG) Code. It is not considered a marine pollutant and requires no dangerous goods labeling. Containers should remain dry, tightly closed, and protected from seawater and excessive humidity during shipment.

Air Transport (IATA): The product is not regulated as dangerous goods under International Air Transport Association (IATA) regulations. Standard commercial packaging is acceptable. Packaging should prevent dust release, moisture ingress, and contamination during air transportation.

Special Transport Precautions:

- Transport only in clean, dry, tightly sealed containers.

- Protect from moisture, rain, and direct sunlight.
- Prevent package damage during loading and unloading.
- Avoid generating airborne dust.
- Keep away from strong oxidizing agents and incompatible chemicals.
- Secure cargo properly to prevent shifting during transit.
- Maintain good housekeeping during transportation and storage.

Transport in Bulk According to MARPOL Annex II and IBC Code: Not applicable.

Emergency Transport Information: If accidental spillage occurs during transportation, isolate the affected area if necessary and avoid generating dust. Collect the spilled material by sweeping or vacuuming into suitable containers for recovery or disposal. Prevent entry into drains and waterways. Personnel involved in cleanup should wear appropriate personal protective equipment, including respiratory protection where excessive dust is present. Dispose of recovered material in accordance with applicable environmental regulations.

15. Regulatory Information

- The product should be handled in accordance with applicable occupational safety, environmental protection, food, pharmaceutical, and chemical handling regulations.
- Sodium Saccharin is not classified as a hazardous substance under the Globally Harmonized System (GHS) for normal industrial and commercial use.

16. Other Information

The information contained in this Material Safety Data Sheet is based on current scientific knowledge and industrial experience. It is intended solely to provide guidance for the safe handling, storage, transportation, and disposal of the product. It does not constitute a warranty of product characteristics or suitability for any particular application. Users are responsible for ensuring compliance with applicable laws and regulations.

- **MSDS Generate Date:** 20-05-2017
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- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.