

Material Safety Data Sheet (MSDS)

Product Name: Sodium lauryl Sulphate Technical Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

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1. Identification of the Substance and Company

Product Name: Sodium Lauryl Sulphate Technical Grade

Chemical Name: Sodium Lauryl Sulphate

Synonyms: Sodium Dodecyl Sulfate (SDS), Sodium Lauryl Sulfate, SLS

CAS Number: 151-21-3

Molecular Formula: $C_{12}H_{25}NaO_4S$

Molecular Weight: 288.38 g/mol

Recommended Use:

Surfactant, detergent, emulsifier, wetting agent, cleaning products, industrial formulations, cosmetics, personal care products, textile processing, and laboratory applications.

2. Hazard Identification

GHS Classification:

- Skin Irritation – Category 2
- Eye Damage – Category 1

- Specific Target Organ Toxicity (Single Exposure – Respiratory Irritation) – Category 3

Hazard Statements:

- Causes skin irritation.
- Causes serious eye damage.
- May cause respiratory irritation if dust is inhaled.

Precautionary Statements:

- Avoid breathing dust.
- Avoid contact with skin and eyes.
- Wear protective gloves, protective clothing, and eye protection.
- Wash thoroughly after handling.
- Use only in well-ventilated areas.

Potential Health Effects:

Inhalation: Dust may irritate the respiratory tract.

Skin Contact: Causes irritation, redness, and dryness.

Eye Contact: Causes severe eye irritation and possible serious eye damage.

Ingestion: May cause irritation of the mouth, throat, stomach, nausea, and vomiting.

3. Composition / Information on Ingredients

Chemical Name: Sodium Lauryl Sulphate

CAS Number: 151-21-3

Molecular Formula: C₁₂H₂₅NaO₄S

Purity: Typically 85–95% (Technical Grade, depending on specification)

Chemical Family: Anionic Surfactant

The product consists primarily of sodium lauryl sulphate with minor quantities of sodium sulfate, moisture, and manufacturing residuals within technical grade specifications.

4. First Aid Measures

Inhalation: Move the affected person to fresh air. If breathing difficulty occurs, seek immediate medical attention.

Skin Contact: Wash immediately with plenty of soap and water. Remove contaminated clothing. Obtain medical attention if irritation persists.

Eye Contact: Flush immediately with clean water for at least 15 minutes while holding eyelids open. Seek immediate medical attention.

Ingestion: Rinse mouth thoroughly with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Most Important Symptoms:

- Severe eye irritation
- Skin irritation
- Respiratory irritation
- Gastrointestinal discomfort

5. Fire Fighting Measures

Suitable Extinguishing Media:

- Water spray
- Dry chemical powder
- Carbon dioxide (CO₂)
- Alcohol-resistant foam

Unsuitable Extinguishing Media:

High-pressure water jet.

Fire Hazards:

Organic material may burn under fire conditions.

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide, sulfur oxides, and sodium oxides.

Protective Equipment:

Firefighters should wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions:

- Avoid dust formation.
- Wear suitable protective equipment.
- Avoid contact with eyes and skin.
- Ensure adequate ventilation.

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

Cleanup Methods: Collect material by vacuuming or sweeping carefully to minimize dust. Place in suitable containers for disposal.

7. Handling and Storage

Handling

- Avoid breathing dust.
- Avoid eye and skin contact.
- Use appropriate ventilation.
- Follow good industrial hygiene practices.

Storage

Store in tightly closed containers in a cool, dry, well-ventilated area.

Protect from moisture, heat, humidity, and incompatible materials.

8. Exposure Controls / Personal Protection

- **Engineering Controls:** Provide adequate local exhaust ventilation where dust is generated.

Personal Protective Equipment:

- **Respiratory Protection:** Approved dust respirator where airborne dust exists.
 - **Eye Protection:** Chemical safety goggles or face shield.
 - **Hand Protection:** Chemical-resistant gloves.
 - **Skin Protection:** Protective clothing and safety footwear.
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9. Physical and Chemical Properties

Appearance: White to pale cream powder, needles, or granules

Odor: Characteristic mild odor

Physical State: Solid

pH (1% Solution): Approximately 7.0–9.5

Melting Point: Approximately 204°C (decomposes)

Boiling Point: Not applicable

Bulk Density: Varies according to grade

Specific Gravity: Approximately 1.05

Solubility: Freely soluble in water; practically insoluble in mineral oil

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.

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 sodium oxides.

11. Toxicological Information

Acute Toxicity: Low to moderate acute toxicity.

Skin Irritation: Causes skin irritation.

Eye Irritation: Causes serious eye damage.

Respiratory Effects: Dust may irritate the respiratory tract.

Sensitization: Not generally considered a skin sensitizer.

Carcinogenicity: Not classified as carcinogenic.

Mutagenicity: No known mutagenic effects.

Reproductive Toxicity: No known reproductive toxicity.

12. Ecological Information

Ecotoxicity: Harmful to aquatic organisms in high concentrations.

Persistence and Degradability: Readily biodegradable under normal environmental conditions.

Bioaccumulative Potential: Not expected to bioaccumulate significantly.

Mobility: Highly soluble in water.

13. Disposal Considerations

Dispose of product and contaminated packaging according to applicable local, regional, and national regulations.

Avoid uncontrolled discharge into waterways or drainage systems.

14. Transport Information

Sodium Lauryl Sulphate Technical Grade is generally not classified as dangerous goods for transport under ADR/RID, IMDG, or IATA regulations when supplied in its standard commercial form. Although the product is an irritant, it does not normally meet the criteria for transport as a hazardous material. It should nevertheless be transported carefully to prevent dust generation, moisture absorption, package damage, and environmental release.

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 for transport.

Marine Pollutant: No.

Road Transport (ADR/RID): The product is not regulated as dangerous goods for road or rail transport. Transport in sealed bags, fiber drums, HDPE drums, or moisture-resistant containers. Protect packaging from tearing, excessive humidity, rain, and mechanical damage during loading and unloading.

Sea Transport (IMDG): Not classified as dangerous goods under the International Maritime Dangerous Goods (IMDG) Code. The product is not considered a marine pollutant. Containers

should remain dry and tightly sealed throughout transportation. Prevent contamination of cargo holds with spilled material.

Air Transport (IATA): Not regulated as dangerous goods under International Air Transport Association (IATA) regulations. Standard commercial packaging is suitable provided that packages remain securely sealed and protected against moisture and physical damage.

Special Transport Precautions

- Keep containers tightly closed during transportation.
- Protect from moisture, rain, and excessive humidity.
- Avoid generating airborne dust during loading and unloading.
- Prevent physical damage to containers.
- Keep away from strong oxidizing agents and strong acids.
- Transport in clean, dry vehicles.
- Ensure packages are properly secured to prevent movement during transit.

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

Emergency Transport Information: In the event of accidental spillage during transportation, avoid dust generation and prevent the material from entering drains, sewers, or natural watercourses. Collect spilled material by vacuuming or sweeping into suitable containers for recovery or disposal. Personnel involved in cleanup should wear appropriate respiratory, eye, and skin protection. Wash contaminated surfaces thoroughly after cleanup.

15. Regulatory Information

- The product should be handled in accordance with applicable occupational safety, environmental protection, and chemical handling regulations.
- Classification and labeling should comply with the Globally Harmonized System (GHS) and local regulatory requirements.

16. Other Information

The information contained in this Material Safety Data Sheet is based on current scientific knowledge and industrial experience and is intended to provide guidance for the safe handling, storage, transportation, and disposal of the product. It should not be interpreted as a guarantee of product specifications or suitability for any particular application.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.