Material Safety Data Sheet

(LIQUID)

Section 1: Chemical Products and Company Identification

Product Name: Sodium Lauryl Sulfate, 25% Min.

Synonym: Sodium Dodecyl Sulfate，Dodecyl Sulfate, Sodium Salt.

MSDS Code: SLS2569.

CAS No.: Mixture.

Chemical Formula: Not available.

Molecular Weight: Not available.

Contact Information:

Zibo Jujin Chemical Industry Co., Ltd.

Add: No.99, Shanquan Road, Zhangdian District, Zibo City,

Shandong Province, China.Zip Code: 255062

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Date of Effective: Jun. 8, 2007.

Emergency Contact:

Chinese Surfactant Research and Promotion Office: +86-351-2028147.

Daily Chemicals Research Institute: +86-351-2023734.

Section 2: Composition, Information on Ingredients

Composition:

Name	CAS No.	Content (% by Weight)
Sodium Lauryl Sulfate	151-21-3	25 min.
Water	7732-18-5	75 max.

Section 3: Hazards Identification

Potential Acute Health Effects:

Slightly hazardous in case of skin contact (irritant, sensitizer, permeator) or eye contact (irritant) or ingestion. Non-corrosive to skin. Non-corrosive to eyes. Non-corrosive for lungs.

The substance may be toxic to upper respiratory tract, skin, eyes.

Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact:

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation: Not available.

Ingestion:

Do NOT include vomiting unless directed to do so by medical personnel. Never give

anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Products: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of static discharge: Not available. Non-explosive in presence of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:

Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Control/ Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection:

Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Eyes Protection: Wear splash goggles.

Body Protection: Wear anti-poison work suits.

Hand Protection: Wear rubber hand suits.

Other Protection: Change and wash work clothes regularly.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid. (Tendency to foam)

Odor: Not available.

Taste: Not available.

Molecular Weight: Not applicable.

Color: Colorless. Clear.

pH Value (1% solution/water): Neutral.

Boiling Point (℃): The lowest known value is 100℃(212ºF) (Water).

Melting Point (℃): Not applicable.

Relative Density (Water=1): 0.62

Relative Density (air=1): Not available.

Logarithm value of capryl alcohol / water distribution coefficient: Not available.

Dispersion Properties: See solubility in water.

Solubility: Easily soluble in cold water, hot water.

Main application: Used as the raw material of detergent, leveling agent in dye industry, floatation choosing agent of mining material.

Section 10: Stability and Reactivity Data

Stability: The product is stable under normal state.

Instability Temperature: Not available.

Incompatibility Substances: Reacting with strong oxidizing agents and acid.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 128800 mg/kg (Rat.) (Calculated value for the mixture).

Chronic Effects on Humans:

MUTAGENIC EFFECTS: Mutagenic for bacterial and/or yeast. [Sodium Lauryl Sulfate]. Contains material which may cause damage to the following organs: skin.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant, sensitizer, permeator), or ingestion or inhalation.

Special Remarks on Toxicity to Animals:

Lowest Published Lethal Dose:

LDL [Rabbit]-Route: Skin; Does: 10000 mg/kg (Sodium Lauryl Sulfate).

Special Remarks on Chronic Effects on Humans:

May cause adverse reproductive effects based on animal test data. No human data found. (Sodium Lauryl Sulfate)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: Causes mild to moderate skin irritation. May cause allergic reaction. (dermatitis)

Eyes: Causes moderate eye irritation.

Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May cause allergic respiratory reaction.

Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting, hyper motility, diarrhea, and bloating. May also affect behavior (ataxia, somnolence), and cardiovascular system.

Chronic Potential Health Effects:

Skin: Prolonged or repeated skin contact may cause allergic dermatitis.

Ingestion: Prolonged or repeated ingestion may affect the liver.

Inhalation: Prolonged or repeated inhalation may cause allergic respiratory reaction (asthma). (Sodium Lauryl Sulfate)

Section 12: Ecological Information

Ecotoxicity: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation:

The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Rejectamenta Feature: Not hazardous.

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

IMO / IMDG: Not regulated as a hazardous material.

RID / ADR: Not regulated as a hazardous material.

ICAO / IATA: Not regulated as a hazardous material.

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Regulatory Information

HMIS (U.S.A.):

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: g

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: April 8, 2006.

Last Updated: April 8, 2006.

Compose Department: Technology Dept.

Data Auditing Unit: The surfactant R&D unit of Science and Technology committee of industry project of Chinese Academy of Engineer.

Material Safety Data Sheet

(SOLID)

Section 1: Chemical Products and Company Identification

Product Name: Sodium Lauryl Sulfate.

Synonym: Sodium Dodecyl Sulfate，Dodecyl Sulfate, Sodium Salt.

MSDS Code: 2036.

CAS No.: 151-21-3.

Chemical Formula: $C_nH_{2n+1}O_4SNa$, n=12, 14.

Molecular Weight: 294.3.

Contact Information:

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Date of Effective:

Jun. 8, 2007.

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Section 2: Composition, Information on Ingredients

Composition:

Name	Content (% by Weight)	CAS No.
Sodium Lauryl Sulfate	92 min.	151-21-3

Section 3: Hazards Identification

Hazards Type: Not available.

Intrude Approach:

Inhalation, eaten, skin contact.

Healthy Harm:

It is irritating to eyes and skin, can cause respiratory tract irritation. It may cause severe allergic respiratory reaction.

Environment Harm:

Not available.

Fire & Explosion Data:

Flammable, irritating and hypersusceptibility.

Section 4: First Aid Measures

Skin Contact:

Take off the clothes; wash thoroughly with soap and water.

Eye Contact:

Raise the eyelids; wash thoroughly with flowing clean water or physiological saline. Get medical attention.

Inhalation:

Move to fresh air. Give oxygen if breathing is difficult. Get medical attention immediately.

Ingestion:

Drinking plenty of warm water, deduce vomiting. If large quantities of this material are swallowed, get medical attention immediately.

Section 5: Fire Fighting Measures

Dangerous data:

Flammable at sight of fire or under high temperature.

Harmful products after firing:

Carbon oxides (CO、CO2), sulfur oxides, and sodium oxide.

Fire Fighting Methods:

Firemen should wear anti-poison face-mask and protective clothes, the air flow should direct upward.

Fire Fighting Agent:

Water spray, foam, carbon dioxide or sand soil.

Section 6: Accidental Release Measures

Separate the leakage contaminated area, limit in and out. Cut off the fire source. It's suggested that the workman should wear anti-dusk face masks which can cover the whole face, and wear anti-poison clothes. Collect the products into bags avoiding dust rising and move to safe place. If large spill, cover the products with plastic cloth or canvas. Collect and reclaim or send to the waste disposal site.

Section 7: Handling and Storage

Handling Precautions:

Keep the containers closed but workroom ventilation. Workmen should be specially trained, and handle according to regulation. Workmen are suggested wearing self-contained breathing apparatus, splash goggles, wear anti-poison work suits and rubber hand suits. Keep away from fire and heat. No smoke. Adopt ant-explosive ventilation appliances. Avoid dusts. Keep away from incompatible materials such as oxidizing agents. Handle carefully during upload or download to avoid the container damage. Equip with suitable types and quantities of fire fighting and spill handling

appliances. Hazardous matter may remain in empty containers.

Storage Precautions:

Keep container in a cool, well-ventilated place, tightly closed. Keep away from fire and heat. Store in well-ventilation room, in case of insufficient ventilation, wear suitable respiratory equipment. No contact with strong oxidizing agents or acid. Prepare appropriate containers to accommodate the spilled materials.

Section 8: Exposure Control/ Personal Protection

Maximum Concentration: Not available.

Monitoring Method: Not available.

Engineering Controls:

Keep the containers closed but workroom ventilation.

Breathe System Protection:

Wear dust respirator when the dust density in the air exceeds the exposure limitation. Wear air respirator during emergency rescuing and withdrawing.

Eyes Protection: Wear splash goggles.

Body Protection: Wear anti-poison work suits.

Hand Protection: Wear rubber hand suits.

Other Protection: Change and wash work clothes regularly.

Section 9: Physical and Chemical Properties

Main Component: Sodium Lauryl Sulfate.

Physical Appearance and State: White powder form or white needle form.

pH Value (1% solution): 7.5-9.5

Melting Point (℃): 204-207

Boiling Point (℃): Not Available.

Relative Density (Water=1): 0.65

Relative Density (air=1): Not available.

Logarithm value of capryl alcohol / water distribution coefficient: Not available.

Flashing Point (℃): Not available.

Ignition Temperature (℃): Not available.

Max. Limitation of Explosion %(V/V): Not available.

Min. Limitation of Explosion %(V/V): Not available.

Solubility:

Soluble in water, slightly soluble in alcohol, insolvable in chloroform.

Main application:

Used as the raw material of detergent, leveling agent in dye industry, floatation choosing agent of mining material.

Section 10: Stability and Reactivity

Stability: The product is stable under normal state.

Incompatibility Substances: Reacting with strong oxidizing agents and acid.

Avoid Contact: High temperature, humidity, acid.

Polymerization Hazard: Will not occur.

Ultimate Decomposition: CO, CO_2 and SO_x.

Section 11: Toxicological Information

Acute Toxicity:

LD50: 2000 mg/kg (Small Rat.); 1288 mg/kg (Big Rat.).

LC50: Not Available.

Irritation: Medium.

Section 12: Ecological Information

Ecological toxicology or toxicity: Not available.

Biodegradability: Not available.

Non-biodegradability: Not available.

Section 13: Disposal Considerations

Rejectamenta Feature: Not hazardous.

Disposal of Rejectamenta:

Rejectamenta must be disposed according to the state and local environment control registrations. Firing method is recommended. The sulfur oxides vented by the firing oven should be get ride of by syringe.

Section 14: Transport Information

Hazardous No.: 4.1

UN No.: UN1325

Packing Sigh:

Packing Class: Class Ⅲ

Packing Method:

Pack with 20kg net weight woven bags or craft paper bags with plastic liner.

Caution on transportation:

Packaging closed thoroughly before transportation; stack firmly to assure no leakage and no fall down during the transportation. Do NOT transport together with oxidizing agents or edible chemicals. Avoid strong insolation, rain or high temperature. The transporter should be thoroughly cleaned after transportation.

Section 15: Regulatory Information

Dangerous Chemical Goods Safety Management Statute (issued by state government on Feb 17, 2007), Hazardous Chemical Goods Safety Management

Statute Details (chemical labor issued [1992] No. 677), Regulations on Safety Usage of Chemicals at Work Sight ([1996] labor issued No. 423), has set the regulation on the usage, production, transportation, uploading and downloading of the hazardous chemicals.

Section 16: Other Information

Referenced Documentation:

《Composition Regulation on the Chemical Material Safety Data Sheet》 GB 16483-2000

《Classification and Signs of General Hazardous Chemicals》GB13690-92

《Classification and Name Number of the Hazardous Goods》GB6944-86

《 Principle on Packing Classes of Hazardous Goods During Transportation 》 GB/T15098-94

《Packing Sighs of Hazardous Goods》GB 190-90

《Suggestion on the Hazardous Goods During Transportation》

《Regulation of the Real Way Hazardous Goods During Transportation》

《Catalogue of the Hazardous Rejectamenta of China》

Date of Compose: April 8, 2006.

Compose Department: Technology Dept.

Data Auditing Unit: The surfactant R&D unit of Science and Technology committee of industry project of Chinese Academy of Engineer.

Amend Record: One time.