

Shanghai Aladdin Biochemical Technology Co., Ltd.
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

SAFETY DATA SHEET

Version: v1
Revision Date: 2025-09-17
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Sodium dodecyl sulfate
Product Number : S118591
Brand : aladdin
CAS-No. : 151-21-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co., Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable solids, Category 1 H228: Flammable solid.

Acute toxicity, Category 4 H302: Harmful if swallowed.

Acute toxicity, Category 3 H311: Toxic in contact with skin.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Specific target organ toxicity - single exposure, Category 3, Respiratory system H335: May cause respiratory irritation.

Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

2.2 GHS Label elements, including precautionary statements

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Pictogram



Danger

Signal word

Hazard statement(s)

H228	Flammable solid
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/.../] equipment.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P391	Collect spillage.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.
P302+P352+P312	IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P304+P340+P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. if you feel unwell.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

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Synonyms	: SDS;Sodium lauryl sulfate;Dodecyl sodium sulfate;Dodecyl sulfate sodium salt;Lauryl sulfate sodium salt;Laurylsulfuric Acid Sodium Salt;Dodecylsulfuric Acid Sodium Salt
Formula	: CH ₃ (CH ₂) ₁₁ OSO ₃ Na
Molecular weight	: 288.38
CAS No.	: 151-21-3
EC-NO.	: 205-788-1

Component	Classification	Concentration
Sodium dodecyl sulfate		
	no data available	Suitable for molecular biology, ≥98.5% (GC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.

If inhaled

Move to fresh air. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact

Take victim immediately to hospital. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact

Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed

Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Toxic in contact with skin. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Remove all sources of ignition.

6.2 Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Prevent unauthorized access. No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical

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installations / working materials must comply with the technological safety standards. 4.1B, Flammable solid hazardous materials

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing problems.

Skin protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Body Protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

In the case of dust or aerosol formation use respirator with an approved filter.

Effective dust mask

Control of environmental exposure

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

form: Powder or Solid or Chunks color: White to Off-White

b) Odour

no data available

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c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	204-207°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.01
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Sulphur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed. Toxic in contact with skin.

Acute oral toxicity : LD50 Oral (Rat): 1.288 mg/kg Acute inhalation toxicity : LC50 (Rat): >3900 mg/m³ Exposure time: 1 h Acute dermal toxicity : LD50 Dermal (Rabbit): 580 mg/kg

Skin corrosion/irritation

Causes skin irritation. Remarks: May cause skin irritation in susceptible persons. Result: Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye irritation. Remarks: May cause irreversible eye damage. Result: Irritating to eyes.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

Assessment: May cause respiratory irritation.

Additional Information

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : LC0 (Leuciscus idus (Golden orfe)): 26 mg/l LC50 (Lepomis macrochirus (Bluegill sunfish)): 4,5 mg/l Exposure time: 96 h LC50 (Oncorhynchus mykiss (rainbow trout)): 3,6 mg/l Exposure time: 96 h Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 6 mg/l Exposure time: 48 h Toxicity to bacteria : EC50 (Photobacterium phosphoreum): 0,46 mg/l Exposure time: 0,5 h

Toxicity Data on Soil : Not expected to adsorb on soil.

12.2 Persistence and degradability

Biodegradability : Biodegradation: 90 % Exposure time: 28 d Method: OECD Test Guideline 301 Remarks: Readily biodegradable, according to appropriate OECD test.

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12.3 Bioaccumulative potential

Bioaccumulation : Species: Cyprinus carpio (Carp) Exposure time: 3 d Bioconcentration factor (BCF): 3,9 - 5,3 Partition coefficient: noctanol/water : log Pow: -2,03 (20 °C) Method: OECD Test Guideline 107

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13:

13.1 Disposal considerations

Product

The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging

Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

DOT (US)

UN number: 1325

Packing group: II

Class: 4.1

Proper shipping name: FLAMMABLE

Reportable Quantity(RQ): no data
available

Poison Inhalation Hazard: no data
available

SOLID, ORGANIC, N.O.S. (Sodium
dodecylsulfate)

Environmental Hazards: no

IMDG

UN number: 1325

Packing group: II

EMS-No: no data available

Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (Sodium dodecylsulfate)

IATA

UN number: 1325

Packing group: II

Class: 4.1

Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (Sodium dodecylsulfate)

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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SECTION 16: Other information

Further information

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