Richest Group
No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Tel: 0086 21 5017 5386
E-mail: inquiry@richest-group.com
Web: www.richest-group.com

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Sodium Lauryl Sulfate (SLS) K12 95% Powder	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Sodium Lauryl Sulfate (SLS) K12 95% Powder
Synonyms	Sodium dodecyl sulfate; 151-21-3; SODIUM LAURYL SULFATE; Sodium lauryl sulphate; Sodium dodecyl sulphate; Neutrazyme
CAS No.	151-21-3
EC No.	205-788-1
Molecular formula	C12H25NaO4S
Molecular weight	288.38 g/mol
Relevant identified uses	Detergent and personal-care raw material; foaming, cleansing, wetting and emulsifying agent.; Applications listed on the existing substance-level page include laundry, dishwashing, shampoo, body wash, toothpaste, textile/leather/paper processing and construction/fire-fighting foams.
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Acute Tox. 4 (Oral); Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3
Pictogram(s)	GHS05; GHS07
Signal word	Danger
Hazard statement(s)	H302 Harmful if swallowed; H315 Causes skin irritation; H318 Causes serious eye damage; H402 Harmful to aquatic life; H412 Harmful to aquatic life with long lasting effects
Precautionary statement(s)	P264; P270; P273; P280; P301+P312+P330; P302+P352; P305+P351+P338+P310; P332+P313; P362+P364; P501
Other hazards	A skin, eye, and respiratory tract irritant; [ICSC] May cause allergic reactions and eye irritation; [HSDB] An eye irritant that may cause burns on extended exposure; [CAMEO] Found commercially as a solid (90-98% pure), paste (30-41%), or aqueous solution (28-50%); Solid is a severe skin and eye irritant, based on animal studies; Solutions cause irritation that increase with concentration; Not a...

SECTION 3: Composition/information on ingredients

Component	Sodium Lauryl Sulfate (SLS) K12 95% Powder

SECTION 3: Composition/information on ingredients

CAS No.	151-21-3
EC No.	205-788-1
Classification	Acute Tox. 4 (Oral); Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3
Concentration	Active matter ≥95%

SECTION 4: First-aid measures

If inhaled	IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere.
In case of skin contact	IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.
In case of eye contact	First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.
If swallowed	DO NOT INDUCE VOMITING. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the victim to a hospital if advised by a physician. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures

Suitable extinguishing media	Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary. Further information: Use water spray to cool unopened containers.
Unsuitable extinguishing media	Solid water streams may be ineffective; use water as a mist or spray (supplier SDS).
Special hazards arising from the chemical	Flash point data for this chemical are not available; however, it is probably combustible. (NTP, 1992)
Advice for firefighters	Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. A water spray may also be used. (NTP, 1992)

SECTION 6: Accidental release measures

Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting.

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid contact with skin and eyes. Avoid formation or inhalation of dust, mist or vapour as applicable. Wash thoroughly after handling.
Conditions for safe storage, including incompatibilities	Store in a cool, dry and well-ventilated place; keep container tightly closed and away from strong oxidizing agents.

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	No substance-specific occupational exposure limit was identified in the reviewed SDS; control dust exposure.
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Provide adequate ventilation. Eyewash facilities should be available where contact is possible.
Eye/face protection	Protective gloves; dust mask or face shield (USCG, 1999)
Skin and body protection	Protective gloves; dust mask or face shield (USCG, 1999)
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	White or light yellow powder
Colour	White or cream-colored crystals, flakes, or powder
Odour	Faint odor of fatty substances
Melting point / freezing point	204–207°C
Boiling point / boiling range	Not applicable; decomposes
Flammability	Flash point data for this chemical are not available; however, it is probably combustible. (NTP, 1992)
Explosion / flammability limits	No numerical limits established in the reviewed SDS; fine dust dispersed in air is a potential dust-explosion hazard.
Flash point	170°C
Auto-ignition temperature	310.5°C
Decomposition temperature	No data available
pH	9.1 at 10 g/L; selected 95% SPEC separately controls pH of 1% active-matter solution
Viscosity	Not applicable to the neat solid; solution viscosity depends on concentration and temperature.
Solubility	130 g/L at 20°C
Partition coefficient n-octanol/water	1.6
Vapour pressure	≤0.18 Pa at 20 °C, Grain–Watson estimate (public SDS).
Density and/or relative density	1 g/cm3
Relative vapour density	Not applicable to the non-volatile solid at ambient conditions.
Particle characteristics	White or light yellow powder; avoid generation and accumulation of fine dust.

SECTION 10: Stability and reactivity	
Reactivity	Reacts with strong oxidants and strong acids; fine dust may form an explosive atmosphere.
Chemical stability	Stable under ordinary conditions of use and storage.
Possibility of hazardous reactions	Salts, basic, such as DODECYL SULFATE, [SODIUM SALT], are generally soluble in water. The resulting solutions contain moderate concentrations of hydroxide ions and have pH's greater than 7.0. They react as bases to neutralize acids.
Conditions to avoid	NO open flames.
Incompatible materials	Conditions to avoid: Heat, flames and sparks. Extremes of temperature and direct sunlight. Incompatible materials: Oxidizing agents
Hazardous decomposition products	When heated to decomposition it emits toxic fumes of /sulfur oxides and sodium oxides/.

SECTION 11: Toxicological information	
Acute toxicity	LD50 Rat oral 1288 mg/kg; LD50 Rat ip 210 mg/kg; LD50 Rat iv 118 mg/kg; LD50 Mouse ip 250 mg/kg
Toxicological summary	IDENTIFICATION AND USE: Sodium lauryl sulfate is a white or cream-colored crystal, flake, or powder with a faint odor. Sodium dodecyl sulfate is used in general as a detergent, dispersant, and surfactant. Pure sodium dodecyl sulfate is used mainly in dentifrice products (a powder, paste, or liquid for cleaning the teeth), in hair shampoos, and in emulsion polymerization. The rest is either used in special cosmetic formulations, e.g. for bubble baths and hair bleaches, or as a fine chemical, e.g. as denaturing agent in gel electrophoresis.
Health effects	Inhalation of dust causes sneezing and coughing. Ingestion of large amounts causes irritation of stomach. Dust irritates eyes and may cause burns on prolonged contact. Contact with skin causes some irritation; continued exposure to water solution causes drying out and cracking. (USCG, 1999)
Skin corrosion irritation	GHS classification: Acute Tox. 4 (Oral); Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3; H302 H315 H318 H402 H412
Serious eye damage irritation	GHS classification: Acute Tox. 4 (Oral); Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 3; Aquatic Chronic 3; H302 H315 H318 H402 H412

SECTION 12: Ecological information	
Ecotoxicity	EC50; Species: Americamysis bahia (Opossum Shrimp) age 4 days juvenile; Conditions: saltwater, static, 20 °C, pH 7.5-8.0, dissolved oxygen 70-121% saturated; Concentration: 16500 ug/L for 96 hr; Effect: decreased survival /formulated product/; LC50; Species: Ceriodaphnia dubia (Water Flea) neonate; Conditions: freshwater, static, 25 °C, pH 8.11-8.66, hardness 54-72 mg/L CaCO3, alkalinity 56-76 mg/L, dissolved oxygen 7.46-9.14 mg/L; Concentration: 1260 ug/L for 48 hr (95% confidence interval: 1140-1390 ug/L) /100% purity/
Persistence degradability	AEROBIC: Sodium lauryl sulfate biodegradation was noted at 10 °C by diesel-oil degrading cold-adapted soil inocula in mineral medium. Sixteen out of the 29 inocula were capable of degrading 500-1000 mg sodium lauryl sulfate/L within 96 hrs at 10 °C. Three of these were not capable of degrading sodium lauryl sulfate 2000 mg/L(1).
Bioaccumulative potential	An estimated BCF of 71 was calculated for sodium lauryl sulfate(SRC), using a log Kow of 1.6(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is moderate.

SECTION 12: Ecological information

Mobility in soil	Using a structure estimation method based on molecular connectivity indices(1), the Koc of sodium lauryl sulfate can be estimated to be 3200(SRC). According to a classification scheme(2), this estimated Koc value suggests that sodium lauryl sulfate is expected to have slight mobility in soil.
Other adverse effects	Hydrolysis of sodium lauryl sulfate is not expected to be an important environmental fate process(SRC) since this compound lacks functional groups that hydrolyze under environmental conditions (pH 5 to 9)(1).
Environmental fate	TERRESTRIAL FATE: Based on a classification scheme(1), an estimated Koc value of 3200(SRC), determined from a structure estimation method(2), indicates that sodium lauryl sulfate is expected to have slight mobility in soil(SRC). Volatilization of sodium lauryl sulfate from moist soil surfaces is not expected to be an important fate process(SRC) as it is a salt and has a water solubility of 1.0X10+5 mg/L(3).

SECTION 13: Disposal considerations

Product disposal methods	SRP: The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational harm/injury/toxicity or environmental contamination. Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	Not regulated as dangerous goods; GHS aquatic hazards H402/H412 remain separate from transport status.
Special precautions for user	Keep containers closed and secured during transport. Follow local transport requirements.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	No data available

SECTION 16: Other information

Full text of H-Statements	H302 Harmful if swallowed; H315 Causes skin irritation; H318 Causes serious eye damage; H402 Harmful to aquatic life; H412 Harmful to aquatic life with long lasting effects
Revision date	2026-11-16
Version	1.0

SECTION 16: Other information

References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: PubChem Sodium Lauryl Sulfate (CID 3423265): https://pubchem.ncbi.nlm.nih.gov/compound/3423265 | Sodium Lauryl Sulfate SLS CAS 151-21-3 product SDS, 95% grade: https://www.tnjchem.com/sodium-lauryl-sulfate-sls-cas-151-21-3_p396.html | Sodium Dodecyl Sulfate Safety Data Sheet, CAS 151-21-3: https://www.echemi.com/sds/sodium-lauryl-sulfate-pd20150901246.html
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.