SAFETY DATA SHEET

SLS POWDER — SODIUM LAURYL SULPHATE

CAS No.: 151-21-3

This Safety Data Sheet is issued by Suraj Chemicals as the distributor/supplier of record, based on manufacturer and published GHS / regulatory reference data for this substance. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

GHS Product identifier

SLS POWDER — SODIUM LAURYL SULPHATE
Sodium Dodecyl Sulphate; SDS; SLS
CAS: 151-21-3

Other means of identification

Not relevant

Recommended use of the chemical and restrictions on use

Relevant uses: Anionic surfactant used as a foaming/cleansing agent in toothpaste, shampoo, detergent powders, industrial cleaners, and as a laboratory/analytical reagent (e.g. electrophoresis grade for technical applications). For industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3.

Supplier's details

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), based on the well-established hazard profile of Sodium Lauryl Sulphate (CAS 151-21-3):

Acute Tox. 4	Acute oral toxicity, Category 4, H302
Skin Irrit. 2	Skin corrosion/irritation, Category 2, H315
Eye Dam. 1	Serious eye damage/eye irritation, Category 1, H318
STOT SE 3	Respiratory tract irritation, single exposure, Category 3, H335
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic hazard, Category 3, H412

GHS label elements, including precautionary statements

GHS: Danger

Hazard statements

Acute Tox. 4: H302 – Harmful if swallowed.
Skin Irrit. 2: H315 – Causes skin irritation.
Eye Dam. 1: H318 – Causes serious eye damage.
STOT SE 3: H335 – May cause respiratory irritation.
Aquatic Chronic 3: H412 – Harmful to aquatic life with long lasting effects.

Precautionary statements

P260: Do not breathe dust.
P264: Wash skin/hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P501: Dispose of contents/container in accordance with local regulations on industrial waste.

Other hazards which do not result in classification

Fine powder may create a dust explosion hazard under certain conditions (nuisance combustible dust) – avoid dust accumulation and ignition sources during bulk handling.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Sodium Lauryl Sulphate, powder/needles

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration (%)
CAS: 151-21-3	Sodium Lauryl Sulphate – Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Dam. 1: H318; STOT SE 3: H335; Aquatic Chronic 3: H412 – Danger	Min 92 – 95
CAS: 7757-82-6	Sodium sulphate – Not classified	Max 6.0
CAS: 7732-18-5	Water (moisture) – Not classified	Max 2.0

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

Mixtures

See composition table above – this product is a technical-grade anionic surfactant powder (mixture with minor process-related salts).

4. FIRST AID MEASURES

Description of necessary first-aid measures

Take off immediately all contaminated clothing. Self-protection of the first aider is advised.

By inhalation

Remove to fresh air and keep at rest. Seek medical attention if irritation or discomfort persists.

By skin contact

Wash immediately with plenty of water and soap. Remove contaminated clothing and wash before reuse.

By eye contact

Flush immediately with plenty of water for at least 15 minutes, holding eyelids apart. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

By ingestion/aspiration

Rinse mouth with water (only if the person is conscious). Do not induce vomiting. Seek medical attention if a large quantity has been swallowed or if symptoms occur.

Most important symptoms/effects, acute and delayed

Skin contact: irritation with prolonged/repeated contact – itching, reddening. Eye contact: causes serious eye damage – redness, pain, watering, possible corneal injury. Ingestion: harmful if swallowed; may cause irritation to mouth, throat and stomach, nausea. Inhalation: dust may cause irritation of the nose, throat and respiratory tract (coughing, may cause respiratory irritation).

Indication of immediate medical attention and special treatment needed, if necessary

Symptomatic treatment as required. No specific antidote available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Suitable: Water spray, foam, dry chemical powder, carbon dioxide (CO_2) – select extinguishing media suited to the surrounding fire.
Unsuitable: None known

Specific hazards arising from the chemical

Combustible solid; finely divided material may form combustible dust clouds – avoid dust accumulation near ignition sources. Combustion generates irritant fumes (oxides of carbon and sulphur).

Special protective actions for fire-fighters

Fight fire from a safe distance/protected location. Wear self-contained breathing apparatus and full protective/acid-resistant clothing when involved in a fire. Cool fire-exposed containers with water spray.

Additional provisions

Do not allow fire-fighting water/runoff to enter drains, surface water or ground water – contain and dispose of as contaminated waste.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Wear suitable protective equipment (see Section 8) to prevent contamination of skin, eyes and personal clothing. Avoid generating and breathing dust; use wet methods or a vacuum with HEPA filtration where practicable.

For emergency responders

Wear protective equipment described in Section 8. Keep unprotected persons away.

Environmental precautions

Keep away from drains, surface water and ground water. Retain and dispose of contaminated washing/rinse water as waste; avoid uncontrolled discharge to the environment.

Methods and materials for containment and cleaning up

Sweep/vacuum up avoiding dust generation and place in suitable closed containers for disposal or recovery. Avoid dry sweeping where dust generation is a concern; dampen material lightly if needed to minimise dust.

Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

A. General precautions for safe use

Provide adequate ventilation/local exhaust to control dust. Avoid contact with skin, eyes and avoid generating dust.

B. Technical recommendations for the prevention of fires and explosions

Avoid accumulation of dust; bond/ground equipment to control static electricity during bulk transfer/milling operations. Keep away from ignition sources.

C. Technical recommendations on general occupational hygiene

Do not eat, drink or smoke in work areas. Wash hands and exposed skin before breaks and after work.

D. Technical recommendations to prevent environmental risks

Prevent release to drains, surface water and groundwater. See subsection 6.2.

Conditions for safe storage, including any incompatibilities

A. Specific storage requirements

Recommended storage temperature	Below 40°C, in a cool, dry, well-ventilated place
Container	Keep tightly closed in original packaging, protected from moisture

B. General conditions for storage

Store away from strong oxidising agents and strong acids/alkalis. Protect from moisture, which can cause caking. For additional information see subsection 10.5.

Specific end use(s)

No additional information available beyond the uses listed in Section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Sodium Lauryl Sulphate (CAS 151-21-3): no specific occupational exposure limit established under the Factories Act, 1948; apply the general particulates-not-otherwise-classified (PNOC) good-practice limit for nuisance dust.

Appropriate engineering controls

Provide sufficient general/local ventilation as a collective protection measure, in addition to individual PPE as needed.

B. Respiratory protection

Use a suitable dust mask/respirator (e.g. P2/N95) where dust is generated in poorly ventilated areas or during bulk handling/weighing.

C. Specific protection for the hands

Wear suitable chemical-resistant gloves (e.g. nitrile).

D. Eye and face protection

Use chemical safety goggles with side protection; wear a face shield where splashing may occur.

E. Bodily protection

Wear suitable protective clothing and chemical-resistant footwear/apron for prolonged or repeated contact.

F. Additional emergency measures

Emergency shower and eyewash stations should be available near the work area.

Environmental exposure controls

Avoid environmental spillage of both the product and its container. See subsection 6.2.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Solid (powder/needles/flakes)
Appearance	Fine powder, needles or flakes
Color	White to pale cream
Odor	Faint, characteristic (mild fatty odour)
Odour threshold	Not available
Volatility	
Boiling point at atmospheric pressure	Not applicable (decomposes before boiling)
Vapour pressure	Negligible
Evaporation rate	Not applicable
Product Description	
Bulk density	Approx. 0.30 – 0.50 g/cm³
Assay (active matter)	92 – 95%
pH (1% aqueous solution)	7.0 – 9.5
Vapour density	Not applicable
Partition coefficient n-octanol/water (log KOW)	Approx. 1.6 (literature value)
Solubility in water	Soluble (approx. 100–150 g/L at 20°C)
Melting point/freezing point	Approx. 204 – 207°C (literature value)
Flammability	
Flash Point	Not applicable (solid)
Flammability (solid, gas)	Combustible solid – not readily ignitable
Autoignition temperature	Not available
Lower / Upper flammability limit	Not available (dust may be combustible)

** Values are typical/literature values for Sodium Lauryl Sulphate; batch certificates of analysis are available on request.*

Other information

Explosive properties	Not relevant (potential combustible dust hazard in fine powder form – avoid dust accumulation)
Oxidising properties	Not relevant
Particle size / form	Fine powder/needles/flakes, grade dependent

10. STABILITY AND REACTIVITY

Reactivity

No particular reactivity hazard under normal conditions of storage and use. Reacts with strong oxidising agents.

Chemical stability

Stable under normal conditions of storage and handling. Hygroscopic – may cake if exposed to moisture.

Possibility of hazardous reactions

Hazardous polymerisation will not occur. Fine dust dispersed in air may present a combustible dust hazard in the presence of an ignition source.

Conditions to avoid

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Avoid generating dust clouds near ignition sources	Not applicable	Avoid prolonged exposure to high temperature	Not applicable	Avoid moisture (caking/clumping)

Incompatible materials

Strong oxidising agents, strong acids and strong alkalis.

Hazardous decomposition products

None under normal use and storage conditions. Thermal decomposition may release oxides of carbon and sulphur.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

In case of exposure that is repetitive, prolonged, or at concentrations higher than recommended, adverse health effects may result depending on the means of exposure:

A. Ingestion (acute effect)
Harmful if swallowed. May cause irritation to mouth, throat and stomach, nausea, vomiting.

B. Inhalation (acute effect)
Dust may cause irritation of the nose, throat and respiratory tract; may cause respiratory irritation (STOT SE 3).

C. Contact with skin and eyes (acute effect)
Causes skin irritation. Causes serious eye damage.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)
Not classified as a germ cell mutagen, carcinogen, or reproductive toxicant based on available data.

E. Sensitizing effects
Not classified as a respiratory or skin sensitiser based on available data.

F. Specific target organ toxicity (STOT) – single exposure
May cause respiratory irritation (H335) via inhalation of dust.

G. Specific target organ toxicity (STOT) – repeated exposure
Classification criteria not met based on available data.

H. Aspiration hazard
Not classified based on available data.

Product-specific toxicological information (literature values for Sodium Lauryl Sulphate)

Exposure route	Effect rate / concentration	ATE value
Acute Oral (rat)	LD50	Approx. 1288 mg/kg (commonly cited literature value)
Acute Dermal (rabbit)	LD50	> 2000 mg/kg
Acute Inhalation	LC50	Not established for this grade

12. ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

Toxicity

Acute Toxicity	Species	Genus
LC50: approx. 1 – 5 mg/L (96h) – literature range for alkyl sulphate surfactants	Freshwater fish	Fish
EC50: approx. 1 – 10 mg/L (48h) – literature range	Daphnia	Crustacean

Persistence and degradability
Readily biodegradable, typical of this alkyl sulphate surfactant class.

Bioaccumulative potential
Low bioaccumulation potential (log Kow approx. 1.6).

Mobility in soil
Highly soluble in water; no further quantitative data available.

Results of PBT and vPvB assessment
Not identified as PBT or vPvB based on available data.

Other adverse effects
No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Do not empty into drains; avoid uncontrolled release to the environment. Not classified as hazardous waste at typical use dilutions; confirm classification under local/state Pollution Control Board rules before disposal. Dispose of via a licensed waste disposal contractor in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and applicable local, state and central regulations.

Contaminated packaging should be emptied as completely as possible and may then be handled in the same way as the product; uncleaned packaging should be disposed of as hazardous/industrial waste.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023)

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not a regulated material
14.3 Transport hazard class(es)	Non-hazardous for transport
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	None
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

Transport of dangerous goods by sea (IMDG 41-22)

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not a regulated material
14.3 Transport hazard class(es)	Non-hazardous for transport
14.4 Packing group	Non-applicable
14.5 Marine pollutant	No
14.6 Special precautions for user	None
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

Transport of dangerous goods by air (IATA/ICAO 2024)

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not a regulated material
14.3 Transport hazard class(es)	Non-hazardous for transport
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	Not necessary
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product. Listed in international chemical inventories such as TSCA, DSL and EINECS.

Other legislation

Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

16. OTHER INFORMATION

Legislation related to safety data sheets

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3

H302: Harmful if swallowed.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H412: Harmful to aquatic life with long lasting effects.

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources

Well-established public GHS classification and literature toxicological/ecotoxicological data for Sodium Lauryl Sulphate (CAS 151-21-3); no product-specific third-party source PDF was used for this document.

Abbreviations and acronyms

GHS: Globally Harmonized System of Classification and Labelling of Chemicals | ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ATE: Acute Toxicity Estimate | CMR: Carcinogenic, Mutagenic or toxic for Reproduction | STOT: Specific Target Organ Toxicity | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log Pow: Octanol-water partition coefficient | PBT: Persistent, Bioaccumulative and Toxic | vPvB: Very Persistent and very Bioaccumulative

Disclaimer: The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

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