



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

1.1 Product identifiers

Product name : Sodium dodecyl sulfate

Product Number : L4509
Brand : Sigma-Aldrich
CAS-No. : 151-21-3

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

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Distributor : SOPHIX NATURAL AND AGRO PRODUCTS LTD
Address : 5, Olayinka Owodunni Street, Off Sule Abore, Behind NNPC
Filling Station, Ojodu Berger, Lagos
Emergency Telephone Number:
+234 7061111838

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 2), H228
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Skin irritation (Category 2), H315
Serious eye damage (Category 1), H318
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
Short-term (acute) aquatic hazard (Category 2), H401
Long-term (chronic) aquatic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

| | |
|-------------|--|
| H228 | Flammable solid. |
| H302 + H332 | Harmful if swallowed or if inhaled. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |
| H401 | Toxic to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statement(s)

| | |
|---------------------------|--|
| P210 | Keep away from heat/ sparks/ open flames/ hot surfaces. 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 skin 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/ eye protection/ face protection. |
| P301 + P312 + P330 | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth. |
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. |
| 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/ doctor. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P370 + P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances

| | |
|----------|--|
| Synonyms | : Lauryl sulfatesodium salt Sodium dodecyl sulphate Sodium lauryl sulfate Dodecyl sodium sulfate Dodecyl sulfatesodium salt SDS Sodium dodecyl sulfate |
|----------|--|

Formula : C₁₂H₂₅O₄S.Na
Molecular weight : 288.38 g/mol
CAS-No. : 151-21-3
EC-No. : 205-788-1

| Component | Classification | Concentration |
|--------------------------------|---|---------------|
| Sodium dodecyl sulphate | | |
| | Flam. Sol. 2; Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Aquatic Acute 2; Aquatic Chronic 3; H228, H302, H332, H315, H318, H335, H401, H412 Concentration limits: 10 - < 20 %: Eye Irrit. 2, H319; >= 20 %: Eye Dam. 1, H318; | <= 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

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

Carbon oxides

Sulfur oxides

Sodium oxides

Carbon oxides

Sulfur oxides

Sodium oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition.

hygroscopic

Storage class

Storage class (TRGS 510): 4.1B: Flammable solid hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

Handle with impervious gloves.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| a) Appearance | Form: Rods Color: white |
| b) Odor | odorless |
| c) Odor Threshold | No data available |
| d) pH | 9.1 at 10 g/l |
| e) Melting point/freezing point | Melting point/range: 204 - 207 °C (399 - 405 °F) - lit. |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | 170 °C (338 °F) |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | The substance or mixture is a flammable solid with the category 2. |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapor pressure | 0.002 hPa at 20 °C (68 °F) |
| l) Vapor density | No data available |
| m) Density | 0.370 g/cm ³ |
| Relative density | No data available |
| n) Water solubility | 130 g/l at 20 °C (68 °F) - OECD Test Guideline 105 |
| o) Partition coefficient: n-octanol/water | log Pow: 0.83 at 22 °C (72 °F) |
| p) Autoignition temperature | 310.5 °C (590.9 °F) |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |

- s) Explosive properties No data available
- t) Oxidizing properties none

9.2 Other safety information

| | |
|-----------------------|----------------------------|
| Surface tension | 25.2 mN/m at 23 °C (73 °F) |
| Dissociation constant | 1.31 at 20 °C (68 °F) |

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - 977 mg/kg
(OECD Test Guideline 401)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity estimate Inhalation - 4 h - 1.51 mg/l - dust/mist

(Expert judgment)

LD50 Dermal - Rabbit - > 2,000 mg/kg
(OECD Test Guideline 404)

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Irritations

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irreversible effects on the eye
(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test

Result: negative

Remarks: (IUCLID)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test):

Test system: Mouse lymphoma test

Method: OECD Test Guideline 476

Result: negative

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

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

No data available

11.2 Additional Information

RTECS: WT1050000

sneezing, The sodium salt of dodecyl sulfate has been reported to cause pulmonary sensitization resulting in hyperactive airway dysfunction and pulmonary allergy accompanied by fatigue, malaise, and aching. Significant symptoms of exposure can persist for more than two years and can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes, and passive smoking.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

| | |
|---|---|
| Toxicity to fish | flow-through test LC50 - Pimephales promelas (fathead minnow) - 29 mg/l - 96 h (OECD Test Guideline 203) |
| Toxicity to daphnia and other aquatic invertebrates | flow-through test EC50 - Daphnia dubia (Water flea) - 5.55 mg/l - 48 h Remarks: (ECHA) |
| | flow-through test NOEC - Ceriodaphnia dubia (water flea) - 0.88 mg/l - 7 d (US-EPA) |
| Toxicity to algae | ErC50 - Desmodesmus subspicatus (green algae) - > 120 mg/l - 72 h (DIN 38412) |
| Toxicity to bacteria | EC50 - activated sludge - 130 mg/l - 3 h (OECD Test Guideline 209) |

12.2 Persistence and degradability

| | |
|------------------|---|
| Biodegradability | aerobic - Exposure time 28 d Result: 95 % - Readily biodegradable. (OECD Test Guideline 301B) |
|------------------|---|

12.3 Bioaccumulative potential

| | |
|-----------------|--|
| Bioaccumulation | Cyprinus carpio (Carp) - 72 h (Sodium dodecyl sulphate) |
| | Bioconcentration factor (BCF): 3.9 - 5.3 |

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions. Waste material must be disposed of in accordance with the national and local regulations.

Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information**DOT (US)**

UN number: 1325 Class: 4.1 Packing group: III
Proper shipping name: Flammable solids, organic, n.o.s. (dodecyl sulphate sodium salt)
Reportable Quantity (RQ):
Poison Inhalation Hazard: No

IMDG

UN number: 1325 Class: 4.1 Packing group: III EMS-No: F-A, S-G
Proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (dodecyl sulphate sodium salt)

IATA

UN number: 1325 Class: 4.1 Packing group: III
Proper shipping name: Flammable solid, organic, n.o.s. (dodecyl sulphate sodium salt)

SECTION 15: Regulatory information**SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| | | |
|------------------------------|---------------------|---------------|
| dodecyl sulphate sodium salt | CAS-No. 151-21-3 | Revision Date |
|------------------------------|---------------------|---------------|

New Jersey Right To Know Components

| | | |
|------------------------------|---------------------|---------------|
| dodecyl sulphate sodium salt | CAS-No. 151-21-3 | Revision Date |
|------------------------------|---------------------|---------------|

SECTION 16: Other information**Relevant changes since previous version**

8. Exposure controls/personal protection

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. SOPHIX NATURAL AND AGRO PRODUCTS LTD Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Copyright 2020 SOPHIX NATURAL AND AGRO PRODUCTS LTD. License granted to make unlimited paper copies for internal use only.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered.

Version: 7.0

Revision Date: 12/27/2021

Print Date: 04/23/2022