

sodium dodecyl sulfate 151-21-3 MSDS

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

Product identifiers

Product name : Sodium dodecyl sulfate

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 151-21-3

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

Identified uses : Laboratory chemicals, Manufacture of substances

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable solids (Category 2), H228

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Dermal (Category 3), H311

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

F Highly flammable R11

Xn Harmful R21/22

Xi Irritant R37/38, R41

For the full text of the R-phrases mentioned in this Section, see Section 16.

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Danger

Hazard statement(s)

H228 Flammable solid.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust.

P280 Wear protective gloves/ eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove

contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

Supplemental Hazard none

Statements

Other hazards

Possible sensitizer.

SECTION 3: Composition/information on ingredients

Substances

Synonyms : Lauryl sulfate sodium salt

Sodium lauryl sulfate

Dodecyl sodium sulfate

Dodecyl sulfate sodium salt

SDS

Formula : C₁₂H₂₅NaO₄S

Molecular Weight : 288,38 g/mol

CAS-No. : 151-21-3

EC-No. : 205-788-1

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
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Sodium dodecyl sulphate

CAS-No.	151-21-3	Flam. Sol. 2; Acute Tox. 4;	<= 100 %
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EC-No.	205-788-1	Skin Irrit. 2; Eye Dam. 1;	
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STOT SE 3; Aquatic Chronic

3; H228, H302 + H332, H315,

H318, H335, H412

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
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Sodium dodecyl sulphate

CAS-No.	151-21-3	F, Xn, R11 - R21/22 - R37/38 - <= 100 %
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EC-No.	205-788-1	R41
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For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with

water. Consult a physician.

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

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

no data available

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing

dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the

environment must be avoided.

Methods and materials for containment and cleaning up

Sweep up and shovel. 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. Contain spillage, pick up with an electrically protected vacuum

cleaner or by wet-brushing and transfer to a container for disposal according to local regulations

(see

section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition

- No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

hygroscopic

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

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling

the product.

Personal protective equipment

Eye/face protection

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

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374,

contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type

of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Use

respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

- a) Appearance Form: Rods
Colour: white
- b) Odour no data available
- c) Odour Threshold no data available
- d) pH no data available
- e) Melting point/freezing Melting point/range: 204 - 207 °C - lit.
point
- f) Initial boiling point and no data available
boiling range
- g) Flash point 180 °C
- 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 no data available
flammability or
explosive limits
- k) Vapour pressure no data available

- l) Vapour density no data available
m) Relative density 0,370 g/cm³
n) Water solubility soluble
o) Partition coefficient: n- log Pow: 1,6
octanol/water
p) Auto-ignition no data available
temperature
q) Decomposition no data available
temperature
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available

Other safety information

no data available

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

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

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 1.288 mg/kg

LC50 Inhalation - rat - 1 h - > 3.900 mg/m³

Skin corrosion/irritation

Skin - rabbit

Result: Skin irritation - 24 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - rabbit

Result: Risk of serious damage to eyes.

(OECD Test Guideline 405)

Respiratory or skin sensitisation

Information given is based on data obtained from similar substances.

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

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.

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Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

Toxicity

Toxicity to fish mortality NOEC - *Oncorhynchus mykiss* (rainbow trout) - 19,5 mg/l - 96 h

mortality LOEC - *Pimephales promelas* (fathead minnow) - 4,6 mg/l - 8 d

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 3,6 mg/l - 96 h

Toxicity to daphnia and LC50 - *Daphnia dubia* - 5,5 mg/l - 48 h

other aquatic

invertebrates

Toxicity to algae Growth inhibition LOEC - *Pseudokirchneriella subcapitata* - 2,68 mg/l - 6 d

EC50 - *Desmodesmus subspicatus* (green algae) - > 120 mg/l - 72 h

Persistence and degradability

Biodegradability Result: 90 % - Readily biodegradable.

Ratio BOD/ThBOD 95,9 %

Bioaccumulative potential

Bioaccumulation Cyprinus carpio (Carp) - 72 h

Bioconcentration factor (BCF): 3,9 - 5,3

Mobility in soil

no data available

Results of PBT and vPvB assessment

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

Other adverse effects

Toxic to aquatic life.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting

as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal

company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 2926 IMDG: 2926 IATA: 2926

UN proper shipping name

ADR/RID: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Sodium dodecyl sulphate)

IMDG: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Sodium dodecyl sulphate)

IATA: Flammable solid, toxic, organic, n.o.s. (Sodium dodecyl sulphate)

Transport hazard class(es)

ADR/RID: 4.1 (6.1) IMDG: 4.1 (6.1) IATA: 4.1 (6.1)

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

no data available

SECTION 15 - REGULATORY INFORMATION

N/A

SECTION 16 - ADDITIONAL INFORMATION

N/A