

Material Safety Data Sheet

| Section 1: Chemical Product and Company Identification | | |
|--|---|--|
| Product Name: 10% Sodium dodecyl sulfate | Contact Information: | |
| CAS#: Not applicable | UFC Biotechnology, Inc. | |
| Synonym: None | 435 Creekside Drive, Suite 5 Amherst, New York 14228 | |
| Chemical Formula: $C_{12}H_{25}NaO_4S$ and H_2O | Office Number: 716-777-3776 INFOTRAC (24HR Emergency Telephone), call: 1-800-535-5053 | |
| | International INFOTRAC, call: 1- 352-323-3500 | |
| | For non-emergency assistance, call: 1-716-777-3776 | |

| | | Section 2: Hazards Identification | |
|-----|--|---|--|
| 2.1 | 1 Classification of the substance or mixture | | |
| | GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) | | |
| | Skin irritation (Category 2), H31 | | |
| | Serious eye damage (Category 1 |), H318 | |
| 2.2 | GHS Label elements, including | precautionary statements | |
| | Distances | | |
| | Pictogram | • | |
| | Signal word | Danger | |
| | Hazard statement(s) | | |
| | H315 Causes skin irritation. | | |
| | H318 Causes serious eye damage. | | |
| | Precautionary statement(s) | | |
| | P302 + P352 IF ON SKIN: Wash with plenty of soap and water. | | |
| | 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. | |
| | P308 + P310 IF exposed or conce | erned: Immediately call a POISON CENTER/doctor. | |
| 2.3 | Hazards not otherwise classified Possible sensitizer. | d (HNOC) or not covered by GHS | |

| Su Sy | ubstances ynonyms : | Lauryl sulfate sodium salt | |
|----------|------------------------|-----------------------------|--|
| Sy | ynonyms : | Lauryl sulfate sodium salt | |
| | | | |
| | | Sodium dodecyl sulphate | |
| | | Sodium dodecyl sulfate | |
| | | Sodium lauryl sulfate | |
| | | Dodecyl sodium sulfate | |
| | | Dodecyl sulfate sodium salt | |
| Fc | ormula : | C12H25O4S.Na | |
| Μ | 1olecular weight : | 288.38 g/mol | |
| C | AS-No. : | 151-21-3 | |
| EC | C-No. : | 205-788-1 | |

UFC Bic

| Sodium dodecyl sulfate (SDS) | Flam. Sol. 2 – H228 | 10=15%% ≤ |
|------------------------------|--------------------------|-----------|
| | Acute Tox. 4 – H302+H332 | |
| | Skin Irrit. 2 – H315 | |
| | Eye Dam. 1 – H318 | |
| | STOT SE 3 – H335 | |

| 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 the ophthalmologist. Remove |
| | | contact lenses. |
| | If swallowed | After swallowing: immediately drink water (two glasses at most). Consult a physician. |
| 4.2 | Most important symptoms and effects, both acute and delayed | |
| | The most important kno | wn symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 |
| 4.3 | Indication of any imme | diate medical attention and special treatment needed |
| | No data available | |

Section 5: Firefighting Measures

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 groundwater 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. |



8.2

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. 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: <u>www.kcl.de</u>). 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 | | |
|---|--------------------------|--|
| Physical State | Liquid | |
| Appearance | Colorless | |
| Odor | No data available | |
| Odor Threshold | No information available | |
| рН | No data available | |
| Melting Point/Range | No data available | |
| Boiling Point/Range | No data available | |
| Flash Point | No data available | |
| Evaporation Rate | No data available | |
| Flammability (solid, gas) | Not applicable | |
| Flammability or explosive limits | | |
| Upper | No data available | |
| Lower | No data available | |
| Vapor Pressure | No information available | |
| Vapor Density | Not applicable | |
| Specific Gravity | No information available | |
| Bulk Density | No data available | |
| Solubility | Soluble in water | |



| Partition coefficient; n-octanol/water | No data available |
|--|-------------------|
| Autoignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Viscosity | No data available |
| Molecular Formula | C12 H25 Na O4 S |
| Molecular Weight of SDS | 288.38 |
| | |

Section 10: Stability and Reactivity Data

| Reactive Hazard | No data available |
|----------------------------------|--|
| Stability | The product is chemically stable under standard ambient conditions (room temperature). |
| Conditions to Avoid | No data available |
| Incompatible products. | No data available |
| Incompatible Materials | No data available |
| Hazardous Decomposition Products | No data available |
| Hazardous Polymerization | No data available |
| Hazardous Reactions | No data available |

| | | Section 11: Toxicological Information | |
|------|--|--|--|
| 11.1 | Informa | ation on toxicological effects | |
| | Acute toxicity LD50 | | |
| | Acute oral toxicity: Sodium dodecyl sulfate (SDS) - LD50: > 1427 mg/kg - Rat - (OECD 401) | | |
| | Acute dermal toxicity: Sodium dodecyl sulfate (SDS) - LD50: 580 mg/kg - Rabbit - (IUCLID) | | |
| | Acute in | nhalation toxicity: Sodium dodecyl sulfate (SDS) - LC50: > 3900 mg/m3 - Rat - (National Library of Medicine ChemID | |
| | Plus (NLM CIP)) | | |
| | Skin corrosion/irritation Causes skin irritation. | | |
| | Eye irritation Causes serious eye damage. | | |
| | Respiratory or skin sensitization Not sensitizing | | |
| | Germ cell mutagenicity No indications of human germ cell mutagenicity exist. | | |
| | Carcino | ogenicity | |
| | 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. | |
| | Reprod | luctive toxicity No data available | |
| | Specific | c target organ toxicity - single exposure No data available | |
| | Specific | c target organ toxicity - repeated exposure No data available | |
| | Aspiration hazard No data available | | |
| 11.2 | 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 tox | kicological properties have not been thoroughly investigated. | |
| | | | |
| | | Section 12: Ecological Information | |
| 12.1 | Toxicity | Y | |
| | Toxicity | / to fish flow-through test SDS LC50 - Pimephales promelas (fathead minnow) - 29 mg/l - 96 h (OECD Test Guideline | |
| | 203) | | |
| | Toxicity | / to daphnia and other aquatic invertebrates flow-through test SDS 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 SDS ErC50 - Desmodesmus subspicatus (green algae) - > 120 mg/l - 72 h (DIN 38412) | |
| | Toxicity | / to bacteria SDS 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 sulfate) 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 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.

Section 14: Transport Information

DOT (US)

No dangerous good in sense of this transport regulation.

IMDG

No dangerous good in sense of this transport regulation.

IATA

No dangerous good in sense of this transport regulation.

Section 15: Other 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

References: Not available.

Other Special Considerations: Not available.

Created: 7/25/2022

Last Updated: 7/25/2022

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