SAFETY DATA SHEET
according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 05/02/2014 Version 1.1

SECTION 1. Identification

Product identifier

Product number 428023
Product name Sodium n-Dodecyl Sulfate, Grade Molecular Biology
Synonyms SDS
CAS-No. 151-21-3

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

Identified uses Biochemical research/analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Acute toxicity, Category 4, Oral, H302
Acute toxicity, Category 3, Dermal, H311
Skin irritation, Category 2, H315
Serious eye damage, Category 1, H318
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system, H335

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

GHS-Labeling

Hazard pictograms

Danger
Hazard Statements
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 Statements
P280 Wear protective gloves/ protective clothing.
P280 Wear eye protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

OSHA Hazards
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS and may deviate from the GHS information.

Other hazards
None known.

SECTION 3. Composition/information on ingredients
Formula \( \text{C}_{12}\text{H}_{25}\text{NaO}_{4}\text{S} \) (Hill)
Synonyms SDS
Molar mass 288.37 g/mol

Hazardous ingredients
Chemical Name (Concentration)
CAS-No.
dodecyl sulphate sodium salt (>= 90 % - <= 100 % )
151-21-3
Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures
Description of first-aid measures
General advice
First aider needs to protect himself.

Inhalation
After inhalation: fresh air. Call in physician.

Skin contact
After skin contact: wash off with plenty of water. Remove contaminated clothing. Call a physician immediately.

Eye contact
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.
**SECTION 5. Fire-fighting measures**

**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.

**Special hazards arising from the substance or mixture**

Combustible.
Development of hazardous combustion gases or vapors possible in the event of fire.
Fire may cause evolution of:
Sulfur oxides

**Advice for firefighters**

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

*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**

**Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

**Environmental precautions**

Do not let product enter drains.

**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.
SECTION 7. Handling and storage

Precautions for safe handling
Observe label precautions.

Work under hood. Do not inhale substance/mixture.

Conditions for safe storage, including any incompatibilities
Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Store at +15°C to +30°C (+59°F to +86°F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)
Contains no substances with occupational exposure limit values.

Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures
Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.

Eye/face protection
Tightly fitting safety goggles

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:
protective clothing

Respiratory protection
required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state powder

Color white

Odor odorless
### Odor Threshold
not applicable

### pH
6 - 9

at 10 g/l

68 °F (20 °C)

### Melting point
204 - 207 °C

### Boiling point/boiling range
not applicable

### Flash point
No information available.

### Evaporation rate
No information available.

### Flammability (solid, gas)
No information available.

### Lower explosion limit
No information available.

### Upper explosion limit
No information available.

### Vapor pressure
No information available.

### Relative vapor density
No information available.

### Density
1.1 g/cm³

at 68 °F (20 °C)

### Relative density
No information available.

### Water solubility
150 g/l

at 68 °F (20 °C)

### Partition coefficient: n-octanol/water
log Pow: 1.6
(experimental)

(IUCLID) Bioaccumulation is not expected.

### Autoignition temperature
No information available.

### Decomposition temperature
No information available.

### Viscosity, dynamic
No information available.

### Explosive properties
Not classified as explosive.

### Oxidizing properties
none

### Bulk density
ca.490 - 560 kg/m³

### SECTION 10. Stability and reactivity

#### Reactivity
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.

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

Possibility of hazardous reactions
Exothermic reaction with:
strong oxidizing agents

Conditions to avoid
Strong heating (decomposition).

Incompatible materials
no information available

Hazardous decomposition products
in the event of fire: See section 5.

SECTION 11. Toxicological information
Information on toxicological effects

Likely route of exposure
Inhalation, Eye contact, Skin contact, Ingestion

Target Organs
Gastro-intestinal system
Lungs
Eyes
Skin
Respiratory organs
Acute oral toxicity
LD50 rat: 1,427 mg/kg
OECD Test Guideline 401

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

Acute inhalation toxicity
LC50 rat: > 3.9 mg/l; 1 h (RTECS)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages; damage of respiratory tract

Acute dermal toxicity
LD50 rabbit: 580 mg/kg
(IUCLID)

absorption
Skin irritation
rabbit
Result: Irritations
OECD Test Guideline 404
Causes skin irritation.

Eye irritation
rabbit
Result: Irreversible effects on the eye
OECD Test Guideline 405
Causes serious eye damage.

Sensitization
Maximization Test (GPMT)
Result: negative
(IUCLID)

Genotoxicity in vivo
Mutagenicity (mammal cell test): micronucleus.
Result: negative
(IUCLID)

Genotoxicity in vitro
Ames test
Salmonella typhimurium
Result: negative
Method: OECD Test Guideline 471
Mutagenicity (mammal cell test):
MOUSE LYMPHOMA TEST
Result: negative
Method: OECD Test Guideline 476

Specific target organ systemic toxicity - single exposure
Target Organs: Respiratory system
May cause respiratory irritation.

Specific target organ systemic toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard
Regarding the available data the classification criteria are not fulfilled.

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.

OSHA
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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.
ACGIH  No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information
Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish
flow-through test LC50 Pimephales promelas (fathead minnow): 29 mg/l; 96 h OECD Test Guideline 203
flow-through test NOEC Pimephales promelas (fathead minnow): > 1.357 mg/l; 42 d (ECHA)

Toxicity to daphnia and other aquatic invertebrates
EC0 E.sulcatum: 40 mg/l; 72 h (Lit.)
EC50 Daphnia magna (Water flea): 6 mg/l; 48 h (IUCLID)

Toxicity to algae
static test EC50 Desmodesmus subspicatus (green algae): 53 mg/l; 72 h DIN 38412

Toxicity to bacteria
microtox test EC50 Photobacterium phosphoreum: 0.46 mg/l; 30 min (IUCLID)
EC50 activated sludge: 130 mg/l; 3 h OECD Test Guideline 209

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
flow-through test NOEC Ceriodaphnia Dubia (water flea): 0.88 mg/l; 7 d

US-EPA

Persistence and degradability
Biodegradability
95 %; 28 d; aerobic OECD Test Guideline 301B
Readily biodegradable.
Ratio BOD/ThBOD
BOD5 99 % (Lit.)

Bioaccumulative potential
Partition coefficient: n-octanol/water
log Pow: 1.6 (experimental)
(IUCLID) Bioaccumulation is not expected.

Mobility in soil
No information available.

Additional ecological information
Discharge into the environment must be avoided.
SECTION 13. Disposal considerations
The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

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Sea transport (IMDG)

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SECTION 15. Regulatory information

United States of America

OSHA Hazards
Toxic by inhalation.
Harmful if swallowed.
Toxic by skin absorption
Skin irritant
Corrosive to eyes
Respiratory irritant
Target organ effects
This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

**SARA 311/312 Hazards**  
Acute Health Hazard  
Chronic Health Hazard

**SARA 313**  
SARA 313: 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 302**  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Clean Water Act**  
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.  
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

**DEA List I**  
Not listed  
**DEA List II**  
Not listed

**US State Regulations**

- **Massachusetts Right To Know**  
  Remarks  
  No components are subject to the Massachusetts Right to Know Act.

- **Pennsylvania Right To Know**  
  *Ingredients*  
  dodecyl sulphate sodium salt

- **New Jersey Right To Know**  
  *Ingredients*  
  dodecyl sulphate sodium salt

- **California Prop 65 Components**  
  This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**Notification status**

- **TSCA:**  
  All components of the product are listed in the TSCA-inventory.

- **DSL:**  
  All components of this product are on the Canadian DSL.

**SECTION 16. Other information**

**Training advice**
Provide adequate information, instruction and training for operators.

**Full text of H-Statements referred to under sections 2 and 3.**

- **H302** Harmful if swallowed.
- **H311** Toxic in contact with skin.
- **H315** Causes skin irritation.
- **H318** Causes serious eye damage.
- **H335** May cause respiratory irritation.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 05/02/2014

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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