



## SAFETY DATA SHEET

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

Revision Date 10/15/2014

Version 2.0

### SECTION 1. Identification

#### Product identifier

Product number	817034
Product name	Sodium dodecyl sulfate Ph Eur
Synonyms	SDS
CAS-No.	151-21-3

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

Identified uses	Pharmaceutical production, Chemical for synthesis, Cosmetic raw material
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#### 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)
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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### SECTION 2. Hazards identification

#### GHS Classification

Flammable solid, Category 2, H228  
Acute toxicity, Category 4, Oral, H302  
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*



*Signal Word*  
Danger

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## *Hazard Statements*

H228 Flammable solid.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

## *Precautionary Statements*

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.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P330 Rinse mouth.  
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 for extinction.  
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.

## **Other hazards**

None known.

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## **SECTION 3. Composition/information on ingredients**

Formula	$C_{12}H_{25}OSO_2ONa$	$C_{12}H_{25}NaO_4S$ (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.

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### SECTION 4. First aid measures

#### Description of first-aid measures

##### *General advice*

First aider needs to protect himself.

##### *Inhalation*

After inhalation: fresh air.

##### *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.

##### *Ingestion*

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

Never give anything by mouth to an unconscious person.

#### Most important symptoms and effects, both acute and delayed

Cough, Shortness of breath, Tiredness, Irritation and corrosion

#### Indication of any immediate medical attention and special treatment needed

No information available.

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### SECTION 5. Fire-fighting measures

#### Extinguishing media

##### *Suitable extinguishing media*

Water, Carbon dioxide (CO<sub>2</sub>), Foam, 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.

Forms explosive mixtures with air on intense heating.

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. Remove container from danger zone and cool with water.

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### 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 empty into drains. Risk of explosion.

#### 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.

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### SECTION 7. Handling and storage

#### Precautions for safe handling

Observe label precautions.

#### *Advice on protection against fire and explosion*

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

#### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Store at +5°C to +30°C (+41°F to +86°F).

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### 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

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### *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.

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## **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	> 302 °F ( > 150 °C)
Evaporation rate	No information available.
Flammability (solid, gas)	The substance or mixture is a flammable solid with the category 2. Flammability (solids)
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/cm <sup>3</sup> at 68 °F ( 20 °C)
Relative density	No information available.

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Water solubility	150 g/l at 68 °F ( 20 °C)
Partition coefficient: n-octanol/water	log Pow: 1.6 (experimental) Bioaccumulation is not expected. (Lit.)
Autoignition temperature	No information available.
Decomposition temperature	716 °F ( 380 °C)
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Bulk density	ca. 490 - 560 kg/m <sup>3</sup>

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## 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.

Forms explosive mixtures with air on intense heating.

### 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.

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## SECTION 11. Toxicological information

### Information on toxicological effects

#### *Likely route of exposure*

Inhalation, Eye contact, Skin contact, Ingestion

#### *Target Organs*

Gastro-intestinal system

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Lungs  
Eyes  
Skin  
Respiratory organs

### *Acute oral toxicity*

LD50 Rat: 1,427 mg/kg  
OECD Test Guideline 401

absorption

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*  
absorption

LD50 Rabbit: > 2,000 mg/kg  
(External MSDS)

### *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 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.

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### *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.

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## **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



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**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)  
Bioaccumulation is not expected. (Lit.)

**Mobility in soil**

No information available.

*Additional ecological information*

Discharge into the environment must be avoided.

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**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.

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**SECTION 14. Transport information**

**Land transport (DOT)**

UN number	UN 2926
Proper shipping name	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. ( SODIUM DODECYL SULFATE)
Class	4.1 ( 6.1)
Packing group	III
Environmentally hazardous	--

**Air transport (IATA)**

UN number	UN 2926
Proper shipping name	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. ( SODIUM DODECYL SULFATE)
Class	4.1 ( 6.1)
Packing group	III
Environmentally hazardous	--
Special precautions for user	no

**Sea transport (IMDG)**

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**UN number** UN 2926  
**Proper shipping name** FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. ( SODIUM DODECYL SULFATE)  
**Class** 4.1 ( 6.1)  
**Packing group** III  
**Environmentally hazardous** --  
**Special precautions for user** yes  
EmS F-A S-G

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## SECTION 15. Regulatory information

### United States of America

#### 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

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.

#### 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.

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## SECTION 16. Other information

### Training advice

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Provide adequate information, instruction and training for operators.

### Labeling

#### Hazard pictograms



#### Signal Word

Danger

#### Hazard Statements

H228 Flammable solid.

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.

#### Precautionary Statements

##### Prevention

P210 Keep away from heat.

P273 Avoid release to the environment.

P280 Wear eye protection.

##### Response

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.

P313 Get medical advice/ attention.

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

H228	Flammable solid.
H302	Harmful if swallowed.
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](http://www.wikipedia.org).

Revision Date 10/15/2014

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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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