

## 1 Identification

- **Product identifier**
- **Trade name:** Sodium Dodecyl Sulfate
- **Article number:** 190522
- **CAS Number:**  
151-21-3
- **EC number:**  
205-788-1
- **Molecular Formula**  $C_{12}H_{25}O_4SNa$
- **Molecular Weight** 288.4 g/mol
- **Application of the substance / the mixture** Research use only.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
United States  
www.mpbio.com
- **Information department:** Product safety department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Sol. 1 H228 Flammable solid.



GHS06 Skull and crossbones

Acute Tox. 1 H300 Fatal if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS06



GHS07

- **Signal word** Danger

- **Hazard statements**

Flammable solid.

Fatal if swallowed.

Toxic in contact with skin or if inhaled.

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*Causes skin irritation.**May cause respiratory irritation.***· Precautionary statements***Keep away from heat/sparks/open flames/hot surfaces. No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**Avoid breathing dust/fume/gas/mist/vapors/spray**Wear protective gloves / eye protection / face protection.**Wear protective gloves / protective clothing.**Ground/bond container and receiving equipment.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**Specific treatment (see on this label).**Call a POISON CENTER/doctor.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**Call a POISON CENTER/doctor if you feel unwell.**If skin irritation occurs: Get medical advice/attention.**Rinse mouth.**In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.**IF ON SKIN: Wash with plenty of water.**Take off immediately all contaminated clothing and wash it before reuse.**Store locked up.**Store in a well-ventilated place. Keep container tightly closed.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· Classification system:****· NFPA ratings (scale 0 - 4)**

Health = 3

Fire = 1

Reactivity = 0

**· HMIS-ratings (scale 0 - 4)**

Health = 3

Fire = 1

Reactivity = 0

**· Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

### 3 Composition/information on ingredients

**· Chemical characterization: Substances****· CAS No. Description**

151-21-3 Sodium Dodecyl Sulfate

**· Identification number(s)****· EC number:** 205-788-1

### 4 First-aid measures

**· Description of first aid measures****· General information:***Immediately remove any clothing soiled by the product.**Remove breathing apparatus only after contaminated clothing have been completely removed.**In case of irregular breathing or respiratory arrest provide artificial respiration.*

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- **After inhalation:**  
Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15 - 30 °C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Store protective clothing separately.
  - Avoid contact with the skin.
  - Avoid contact with the eyes and skin.
- **Breathing equipment:**
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
    - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
  - **Penetration time of glove material**
    - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **Eye protection:** Not required.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Powder
Color:	White
Odor:	Characteristic
Odor threshold:	Not determined.
- **pH-value (10 g/l) at 25 °C (77 °F):** 6 - 7
- **Change in condition**

Melting point/Melting range:	180-210 °C (356-410 °F)
Boiling point/Boiling range:	Undetermined.
- **Flash point:** 170 °C (338 °F)
- **Flammability (solid, gaseous):** Product is not flammable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.

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· <b>Danger of explosion:</b>	Not determined.
· <b>Explosion limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with</b>	-
· <b>Water:</b>	Soluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

#### · **LD/LC50 values that are relevant for classification:**

Oral	LD50	1200 mg/kg (rat)
Dermal	LD50	580 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

### 12 Ecological information

- **Toxicity**

#### · **Aquatic toxicity:**

Oral	LC50 / 96 h	4.3 - 8.5 mg/L (Oncorhynchus mykiss)
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	29 mg/L ( <i>Pimephales promelas</i> )
<ul style="list-style-type: none"> <li>· <b>Persistence and degradability</b> No further relevant information available.</li> <li>· <b>Behavior in environmental systems:</b></li> <li>· <b>Bioaccumulative potential</b> No further relevant information available.</li> <li>· <b>Mobility in soil</b> No further relevant information available.</li> <li>· <b>Additional ecological information:</b></li> <li>· <b>General notes:</b>  Water hazard class 2 (Assessment by list): hazardous for water  Do not allow product to reach ground water, water course or sewage system.  Danger to drinking water if even small quantities leak into the ground.</li> <li>· <b>Results of PBT and vPvB assessment</b></li> <li>· <b>PBT:</b> Not applicable.</li> <li>· <b>vPvB:</b> Not applicable.</li> <li>· <b>Other adverse effects</b> No further relevant information available.</li> </ul>	

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	UN2926
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, IATA</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> </ul>	Flammable solids, toxic, organic, n.o.s. (Sodium Dodecyl Sulfate) 2926 Flammable solids, toxic, organic, n.o.s. (Sodium Dodecyl Sulfate), ENVIRONMENTALLY HAZARDOUS FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Sodium Dodecyl Sulfate), MARINE POLLUTANT
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	4.1 Flammable solids, self-reactive substances and solid desensitised explosives 4.1, 6.1
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Class</b></li> </ul>	 4.1 Flammable solids, self-reactive substances and solid desensitised explosives

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· **Label** 4.1 + 6.1

· **IMDG**



· **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives

· **Label** 4.1/6.1

· **IATA**



· **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives

· **Label** 4.1 (6.1)

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:** Environmentally hazardous substance, solid; Marine Pollutant

· **Marine pollutant:** Yes (DOT)

Symbol (fish and tree)

· **Special marking (ADR):** Symbol (fish and tree)

· **Special precautions for user** Warning: Flammable solids, self-reactive substances and solid desensitised explosives

· **Danger code (Kemler):** 46

· **EMS Number:** F-A,S-G

· **Stowage Category** B

· **Stowage Code** SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations** On passenger aircraft/rail: 15 kg

On cargo aircraft only: 50 kg

· **Remarks:** Special marking with the symbol (fish and tree).

· **ADR**

· **Excepted quantities (EQ)** Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

· **IMDG**

· **Limited quantities (LQ)** 1 kg

· **Excepted quantities (EQ)** Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

· **UN "Model Regulation":** UN 2926 FLAMMABLE SOLIDS, TOXIC, ORGANIC, N.O.S. (SODIUM DODECYL SULFATE), 4.1 (6.1), II, ENVIRONMENTALLY HAZARDOUS

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### 15 Regulatory information

- *Safety, health and environmental regulations/legislation specific for the substance or mixture*
- *Sara*
- *Section 355 (extremely hazardous substances): Substance is not listed.*
- *Section 313 (Specific toxic chemical listings): Substance is not listed.*
- *TSCA (Toxic Substances Control Act): Substance is listed.*
- *Proposition 65*
- *Chemicals known to cause cancer: Substance is not listed.*
- *Chemicals known to cause reproductive toxicity for females: Substance is not listed.*
- *Chemicals known to cause reproductive toxicity for males: Substance is not listed.*
- *Chemicals known to cause developmental toxicity: Substance is not listed.*
- *Carcinogenic categories*
- *EPA (Environmental Protection Agency) Substance is not listed.*
- *TLV (Threshold Limit Value established by ACGIH) Substance is not listed.*
- *NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.*
- *GHS label elements*  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- *Hazard pictograms*



GHS02 GHS06 GHS07

- *Signal word* **Danger**
- *Hazard statements*  
Flammable solid.  
Fatal if swallowed.  
Toxic in contact with skin or if inhaled.  
Causes skin irritation.  
May cause respiratory irritation.
- *Precautionary statements*  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Wear protective gloves / eye protection / face protection.  
Wear protective gloves / protective clothing.  
Ground/bond container and receiving equipment.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
**IF SWALLOWED:** Immediately call a POISON CENTER/ doctor.  
Specific treatment (see on this label).  
Call a POISON CENTER/doctor.  
**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor if you feel unwell.  
If skin irritation occurs: Get medical advice/attention.  
Rinse mouth.  
In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
**IF ON SKIN:** Wash with plenty of water.  
Take off immediately all contaminated clothing and wash it before reuse.  
Store locked up.  
Store in a well-ventilated place. Keep container tightly closed.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Product safety department

· **Date of preparation / last revision** 12/08/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Sol. 1: Flammable solids, Hazard Category 1

Acute Tox. 1: Acute toxicity, Hazard Category 1

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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