

Printing date 04/16/2019

Reviewed on 04/16/2019

1 Identification

- **Product identifier**
- **Trade name:** Sodium Dodecyl Sulfate
- **Article number:** 190522
- **CAS Number:**
151-21-3
- **EC number:**
205-788-1
- **Molecular Formula** C12 H25 O4 S Na
- **Molecular Weight** 288.4
- **Application of the substance / the mixture** For 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:** Quality Control 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.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

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



GHS05



GHS07

- **Signal word** Danger

(Contd. on page 2)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 1)

· **Hazard-determining components of labeling:**

Sodium Dodecyl Sulfate, Molecular Biology Reagent

· **Hazard statements**

Flammable solid.

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye damage.

May cause respiratory irritation.

· **Precautionary statements**

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

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

Specific treatment (see on this label).

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

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

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 3

· **HMIS-ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 3

· **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, Molecular Biology Reagent

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 2)

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

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Consult your Doctor. Show the safety data sheet to the Doctor. Away from the dangerous area.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. If breathed in, supply fresh air. If not breathing, give artificial respiration. Consult a Doctor.
- **After skin contact:** Wash off with soap and plenty of water. Consult a Doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Never give anything by mouth to an unconscious person. Rinse mouth with water. If symptoms persist consult a 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:**
Use neutralizing agent.
Pick up mechanically, dispose contaminated material as waste according to Section 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.
- **Protective Action Criteria for Chemicals**

· PAC-1:	
	3.9 mg/m ³

· PAC-2:	
	43 mg/m ³

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 3)

· PAC-3:

260 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace. Avoid direct contact with skin and eyes.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15-30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:**
- **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 Section 7.
- **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.
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.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 4)

· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

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

· Form:	Powder
· Color:	White
· Odor:	Indeterminate
· Odor threshold:	Not determined.

· **pH-value:** Not applicable.· **Change in condition**· **Boiling point/Boiling range:** Undetermined.· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** Product is not flammable.· **Decomposition temperature:** Not determined.· **Auto igniting:** Not determined.· **Danger of explosion:** Not determined.· **Explosion limits:**· **Lower:** Not Applicable· **Upper:** Not Applicable· **Vapor pressure:** Not applicable.· **Density:** Not Applicable· **Relative density** Not determined.· **Vapor density** Not applicable.· **Evaporation rate** Not applicable.· **Solubility in / Miscibility with** Not Determined· **Water:** Partly soluble.· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**· **Dynamic:** Not applicable.· **Kinematic:** Not applicable.· **VOC content:** 0.00 %· **Solids content:** 100.0 %· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 5)

- **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.
Avoid contact with acids. Contact liberates a toxic gas.
- **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:**

ATE (Acute Toxicity Estimate)

Dermal	LD50	580 mg/kg (rabbit)
Inhalative	LC50/4 h	1.5 mg/L

151-21-3 Sodium Dodecyl Sulfate, Molecular Biology Reagent

Oral	LD50	1,200 mg/kg (rat)
Dermal	LD50	580 mg/kg (rabbit)
Inhalative	LC50/4 h	1.5 mg/L (ATE)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **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:**

ATE (Acute Toxicity Estimate)

Oral	LC50 / 96 h	4.3-8.5 mg/L (Oncorhynchus mykiss)
------	-------------	------------------------------------

151-21-3 Sodium Dodecyl Sulfate, Molecular Biology Reagent

Oral	LC50 / 96 h	4.3-8.5 mg/L (Oncorhynchus mykiss)
		29 mg/L (Pimephales promelas)

- **Persistence and degradability** No further relevant information available.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate


(Contd. of page 6)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

- | | |
|---|---|
| UN-Number | UN1325 |
| DOT, ADR, IMDG, IATA | UN1325 |
| UN proper shipping name | <i>Flammable solids, organic, n.o.s. (Sodium Dodecyl Sulfate, Molecular Biology Reagent)</i>
<i>1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (Sodium Dodecyl Sulfate, Molecular Biology Reagent), ENVIRONMENTALLY HAZARDOUS</i>
<i>FLAMMABLE SOLID, ORGANIC, N.O.S. (Sodium Dodecyl Sulfate, Molecular Biology Reagent), MARINE POLLUTANT</i>
<i>FLAMMABLE SOLID, ORGANIC, N.O.S. (Sodium Dodecyl Sulfate, Molecular Biology Reagent)</i> |
| DOT | |
| ADR | |
| IMDG | |
| IATA | |
| Transport hazard class(es) | |
| DOT | |
|  | |
| Class | 4.1 Flammable solids, self-reactive substances and solid desensitised explosives |

(Contd. on page 8)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 7)

· **Label** 4.1

· **ADR, IMDG**



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

· **Label** 4.1

· **IATA**



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

· **Label** 4.1

· **Packing group**

· **DOT, ADR, IMDG, IATA** III

· **Environmental hazards:**

· **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

· **EMS Number:** F-A,S-G

· **Stowage Category** B

· **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: 25 kg
On cargo aircraft only: 100 kg

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

· **ADR**

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

· **IMDG**

· **Limited quantities (LQ)** 5 kg

· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 8)

· **UN "Model Regulation":** UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULFATE, MOLECULAR BIOLOGY REAGENT), 4.1, III, ENVIRONMENTALLY HAZARDOUS

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):**

ACTIVE

· **Hazardous Air Pollutants**

Substance is not 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 GHS05 GHS07

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

Sodium Dodecyl Sulfate, Molecular Biology Reagent

· **Hazard statements**

Flammable solid.

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

(Contd. of page 9)

Harmful if swallowed or if inhaled.

Causes skin irritation.

Causes serious eye damage.

May cause respiratory irritation.

· **Precautionary statements**

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

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

Specific treatment (see on this label).

Rinse mouth.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

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

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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:** Quality Control Dept.

· **Date of preparation / last revision** 04/16/2019 / -

· **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)

VOC: Volatile Organic Compounds (USA, EU)

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 – Category 1

Acute Tox. 4: Acute toxicity – Category 4

(Contd. on page 11)

Safety Data Sheet
acc. to OSHA HCS

Printing date 04/16/2019

Reviewed on 04/16/2019

Trade name: Sodium Dodecyl Sulfate

Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

(Contd. of page 10)

US