Material Safety Data Sheet  
Sodium dodecyl sulfate

ACC# 08485

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium dodecyl sulfate  
**Catalog Numbers:** AC226140000, AC226141000, AC226145000, AC230420000, AC230421000, AC230425000, AC419530000, AC419530010, AC419530250, AC419531000, S799941, S799942, BP166-100, BP166-5, BP166-500, NC9093631, NC9147663, NC9973507, O2674-25, S529-3, S529-500, XXS529ET10KG, XXS529PD35KG

**Synonyms:** SDS; Sodium lauryl sulfate; Dodecyl sodium sulfate; Sulfuric acid monododecyl ester, sodium salt; SLS; Dodecyl hydrogen sulfate sodium salt.

**Company Identification:**  
Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

For information, call: 201-796-7100  
Emergency Number: 201-796-7100  
For CHEMTREC assistance, call: 800-424-9300  
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>151-21-3</td>
<td>Sodium lauryl sulfate</td>
<td>&gt;85</td>
<td>205-788-1</td>
</tr>
</tbody>
</table>

**Hazard Symbols:** XI  
**Risk Phrases:** 36/38

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white solid. Causes eye and skin irritation. **Warning!** May cause respiratory tract irritation.  
**Target Organs:** Eyes, skin.

**Potential Health Effects**  
**Eye:** Causes eye irritation.  
**Skin:** Causes skin irritation. Contact with the skin defats the skin. Sodium lauryl sulfate can produce allergic sensitivity reactions. May produce drying effect on skin. Sodium lauryl sulfate increases the permeability of the skin.  
**Ingestion:** Causes gastrointestinal irritation with nausea, vomiting and diarrhea.  
**Inhalation:** Causes respiratory tract irritation. May cause severe allergic respiratory reaction. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema.  
**Chronic:** Repeated exposure may cause allergic respiratory reaction (asthma). Chronic inhalation may lead to decreased pulmonary function.

Section 4 - First Aid Measures
**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

**Section 5 - Fire Fighting Measures**

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 1; Instability: 0

**Section 6 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Reduce airborne dust and prevent scattering by moistening with water. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

**Section 7 - Handling and Storage**

**Handling:** Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Avoid breathing dust.

**Storage:** Store in a cool, dry place. Store in a tightly closed container.

**Section 8 - Exposure Controls, Personal Protection**

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
</table>

https://fscimage.fishersci.com/msds/08485.htm

11/15/2004
OSHA Vacated PELs: Sodium lauryl sulfate: No OSHA Vacated PELs are listed for this chemical.

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** white

**Odor:** Faint odor of fatty substances.

**pH:** Not available.

**Vapor Pressure:** Negligible

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** decomposes

**Freezing/Melting Point:** 204 - 207 deg C

**Decomposition Temperature:** Not available.

**Solubility:** +/- 150 G/L (20°C)

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C12H25NaO4S

**Molecular Weight:** 288.38

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of sulfur, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS# 151-21-3:** WT1050000

**LD50/LC50:**

**CAS# 151-21-3:**

- Draize test, rabbit, eye: 100 mg/24H Moderate;
- Draize test, rabbit, eye: 250 ug Mild;
- Draize test, rabbit, eye: 2 mg;
- Draize test, rabbit, eye: 10 mg Moderate;
- Draize test, rabbit, skin: 50 mg/24H Severe;
- Draize test, rabbit, skin: 25 mg/24H Moderate;
Draize test, rabbit, skin: 250 mg/24H Moderate; 
Draize test, rabbit, skin: 10 mg/24H; 
Draize test, rabbit, skin: 50 mg/24H Mild; 
Inhalation, rat: LC50 = 3900 mg/m3/1H; 
Oral, rat: LD50 = 1288 mg/kg; 

**Carcinogenicity:** 
CAS# 151-21-3: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. 

**Epidemiology:** No data available. 

**Teratogenicity:** No data available. 

**Reproductive Effects:** No data available. 

**Neurotoxicity:** No data available. 

**Mutagenicity:** No data available. 

**Other Studies:** No data available. 

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**Section 12 - Ecological Information**

No information available. 

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**Section 13 - Disposal Considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. 

**RCRA P-Series:** None listed. 

**RCRA U-Series:** None listed. 

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**Section 14 - Transport Information**

<table>
<thead>
<tr>
<th>US DOT</th>
<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
<th>Canada TDG</th>
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<tbody>
<tr>
<td>Shipping Name:</td>
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<td>No information available.</td>
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<tr>
<td>Hazard Class:</td>
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<tr>
<td>UN Number:</td>
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<tr>
<td>Packing Group:</td>
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**Section 15 - Regulatory Information**

**US FEDERAL**

**TSCA** 
CAS# 151-21-3 is listed on the TSCA inventory. 

**Health & Safety Reporting List** 
None of the chemicals are on the Health & Safety Reporting List. 

**Chemical Test Rules** 
None of the chemicals in this product are under a Chemical Test Rule. 

**Section 12b** 
None of the chemicals are listed under TSCA Section 12b. 

**TSCA Significant New Use Rule**
None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 151-21-3: acute.

Section 313
No chemicals are reportable under Section 313.

Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 151-21-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:
XI

Risk Phrases:
R 36/38 Irritating to eyes and skin.

Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)
CAS# 151-21-3: 2

Canada - DSL/NDSL
CAS# 151-21-3 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of D2B.

Canadian Ingredient Disclosure List
CAS# 151-21-3 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 2/04/1998
Revision #4 Date: 5/09/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

https://fscimage.fishersci.com/msds/08485.htm