1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Dodecyl sulfate sodium salt
Cat No.: S529-3; S529-500
Synonyms: Sodium lauryl sulfate; SDS; Dodecyl Sodium Sulfate
Recommended Use: Laboratory chemicals

Company: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!
Flammable solid. Harmful if swallowed or absorbed through the skin. Causes eye, skin, and respiratory tract irritation. May cause allergic respiratory reaction.

Appearance: Off-white
Physical State: Solid
odor slight

Target Organs: Respiratory system, Skin, Eyes

Potential Health Effects

Acute Effects

Principle Routes of Exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>Irritating to eyes.</td>
</tr>
<tr>
<td>Skin</td>
<td>Irritating to skin. Harmful in contact with skin.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system. May be harmful if inhaled. May cause allergic respiratory reaction.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed. Causes gastrointestinal tract irritation.</td>
</tr>
</tbody>
</table>

Chronic Effects: Repeated contact may cause allergic reactions in very susceptible persons.

See Section 11 for additional Toxicological information.
Aggravated Medical Conditions  No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Haz/Non-haz</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sodium lauryl sulfate</td>
<td>151-21-3</td>
<td>&gt;85</td>
</tr>
<tr>
<td></td>
<td>Sodium sulfate</td>
<td>7757-82-6</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Obtain medical attention.

**Inhalation**
Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

**Ingestion**
Do not induce vomiting. Call a physician or Poison Control Centre immediately.

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flash Point**
> 100°C / > 212°F

**Method**
No information available.

**Autoignition Temperature**
248°C / 478.4°F

**Explosion Limits**
- **Upper**
  - No data available
- **Lower**
  - No data available

**Suitable Extinguishing Media**
Water spray. Carbon dioxide (CO₂). Dry chemical. chemical foam.

**Unsuitable Extinguishing Media**
No information available.

**Hazardous Combustion Products**
No information available.

- **Sensitivity to mechanical impact**
  - No information available.
- **Sensitivity to static discharge**
  - No information available.

**Specific Hazards Arising from the Chemical**
Flammable. Keep product and empty container away from heat and sources of ignition.

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**
- **Health** 2
- **Flammability** 3
- **Instability** 0
- **Physical hazards** N/A
6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Environmental Precautions
Should not be released into the environment

Methods for Containment and Clean Up
Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling
Avoid contact with skin and eyes. Do not breathe dust. Use explosion-proof equipment. Use only non-sparking tools.

Storage
Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition. Flammables area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures
Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

<table>
<thead>
<tr>
<th>Eye/face Protection</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin and body protection</td>
<td>Wear appropriate protective gloves and clothing to prevent skin exposure.</td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Off-white</td>
</tr>
<tr>
<td>odor</td>
<td>slight</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH</td>
<td>8.5-10 % aq.sol.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available.</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available.</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>206°C / 402.8°F</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 100°C / &gt; 212°F</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No information available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available.</td>
</tr>
<tr>
<td>log Pow</td>
<td>No data available</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight 288.38
Molecular Formula C12 H25 Na O4 S

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions.

Conditions to Avoid
Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials
Strong oxidizing agents, Strong acids, Strong bases

Hazardous Decomposition Products
Carbon monoxide (CO), Carbon dioxide (CO₂), Sulfur oxides, Sodium oxides

Hazardous Polymerization
Hazardous polymerization does not occur.

Hazardous Reactions
None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

<table>
<thead>
<tr>
<th>Component Information</th>
<th>LD50 Oral (LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium lauryl sulfate</td>
<td>1288 mg/kg ( Rat )</td>
<td>580 mg/kg ( Rabbit )</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>10000 mg/kg ( Rat )</td>
<td>Not listed</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>3 g/kg ( Rat )</td>
<td>10 g/kg ( Rabbit )</td>
</tr>
</tbody>
</table>

Irritation
Irritating to eyes, respiratory system and skin

Toxicologically Synergistic Products
No information available.

Chronic Toxicity

Carcinogenicity
There are no known carcinogenic chemicals in this product

Sensitization
No information available.

Mutagenic Effects
No information available.

Reproductive Effects
No information available.

Developmental Effects
No information available.

Teratogenicity
No information available.
Other Adverse Effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Endocrine Disruptor Information

No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Do not empty into drains.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium lauryl sulfate</td>
<td>3.59 - 15.6 mg/L</td>
<td>1.31 mg/L</td>
<td>0.46 mg/L</td>
<td>1.8 mg/L</td>
</tr>
<tr>
<td></td>
<td>EC50 96 h</td>
<td>9.9-20.1 mg/L</td>
<td>EC50 72 h</td>
<td>EC50 48 h</td>
</tr>
<tr>
<td></td>
<td>53 mg/L EC50 = 72 h</td>
<td>LC50 96 h</td>
<td>4.5 mg/L</td>
<td>Photobacterium</td>
</tr>
<tr>
<td></td>
<td>30 - 100 mg/L</td>
<td>4.62 mg/L</td>
<td>0.72 mg/L</td>
<td>phosphoreum 30 min</td>
</tr>
<tr>
<td></td>
<td>EC50 96 h</td>
<td>7.97 mg/L</td>
<td>1.19 mg/L</td>
<td>Photobacterium</td>
</tr>
<tr>
<td></td>
<td>117 mg/L EC50 = 96 h</td>
<td>LC50 96 h</td>
<td>10.2-22.5 mg/L</td>
<td>phosphoreum 15 min</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>Not listed</td>
<td>Pimephales promelas: LC50: 13.5 - 14.5 g/L/96h</td>
<td>Not listed</td>
<td>EC50: 4547 mg/L/96h</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Not listed</td>
<td>Pimephales promelas: LC50: 7650 mg/L/96h</td>
<td>Not listed</td>
<td>EC50: 1000 mg/L/48H</td>
</tr>
</tbody>
</table>

Persistence and Degradability

Expected to be biodegradable.

Bioaccumulation/ Accumulation

No information available

Mobility

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium lauryl sulfate</td>
<td>1.6</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>-3</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT
14. TRANSPORT INFORMATION

UN-No: UN2926  
Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
Proper technical name: (SODIUM DODECYL SULFATE)  
Hazard Class: 4.1  
Subsidiary Hazard Class: 6.1  
Packing Group: III

TDG

UN-No: UN2926  
Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
Hazard Class: 4.1  
Subsidiary Hazard Class: 6.1  
Packing Group: III

IATA

UN-No: UN2926  
Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*  
Hazard Class: 4.1  
Subsidiary Hazard Class: 6.1  
Packing Group: III

IMDG/IMO

UN-No: UN2926  
Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
Hazard Class: 4.1  
Subsidiary Hazard Class: 6.1  
Packing Group: III

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>CHINA</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium lauryl sulfate</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sodium sulfate</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
X - Listed  
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.  
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.  
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.  
P - Indicates a commenced PMN substance  
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.  
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule  
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable
SARA 313
Not applicable

SARA 311/312 Hazardous Categorization

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Clean Water Act
Not applicable

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
Not Applicable

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium sulfate</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade
No information available

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
WHMIS Hazard Class
B4  Flammable solid
D2B  Toxic materials

16. OTHER INFORMATION

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8929

Creation Date
24-Nov-2010

Print Date
16-Jun-2011

Revision Summary
“***”, and red text indicates revision

Disclaimer
The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS