Sodium Dodecyl Sulfate: sc-264510

MATERIAL SAFETY DATA SHEET

1 Identification of substance:
   Product Name: Sodium Dodecyl Sulfate
   Catalog Number: sc-264510
   Supplier: Santa Cruz Biotechnology, Inc.
   2145 Delaware Avenue
   Santa Cruz, California 95060
   800.457.3801 or 831.457.3800
   Emergency: ChemWatch
   Within the US & Canada: 877-715-9305
   Outside the US & Canada: +800 2436 2255
   (1-800-CHEMCALL) or call +613 9573 3112

2 Hazard(s) identification
   Classification of the substance or mixture
   Classification according to Regulation (EC) No 1272/2008
   
   GH302 Flame
   Flam. Sol. 1 H228 Flammable solid.
   
   GHS06 Skull and crossbones
   Acute Tox. 3 H311 Toxic in contact with skin.
   
   GHS07
   Acute Tox. 4 H302 Harmful if swallowed.
   Skin Irrit. 2 H315 Causes skin irritation.
   Eye Irrit. 2A H319 Causes serious eye irritation.
   STOT SE 3 H335 May cause respiratory irritation.

   Classification according to Directive 67/548/EEC or Directive 1999/45/EC
   ☒ Xn; Harmful
   ☒ R21/22: Harmful in contact with skin and if swallowed.
   ☒ Xi; Irritant
   ☒ R36/37/38: Irritating to eyes, respiratory system and skin.
   ☒ F; Highly flammable
   ☒ R11: Highly flammable.
   Information concerning particular hazards for human and environment: Not applicable
   Hazards not otherwise classified No information known.

Label elements
   Labelling according to Regulation (EC) No 1272/2008
   The substance is classified and labeled according to the CLP regulation.
Hazard pictograms

GHS02  GHS06

Signal word Danger

Hazard statements
H228 Flammable solid.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P361 Take off immediately all contaminated clothing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification
B4 - Flammable solid
D1B - Toxic material causing immediate and serious toxic effects
D2B - Toxic material causing other toxic effects

Classification system

WHMIS ratings (scale 0-4)
(Hazardous Materials Identification System)

| HEALTH | 2 | Health (acute effects) = 2 |
| FIRE   | 3 | Flammability = 3 |
| REACTIVITY | 1 | Physical Hazard = 1 |

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

3 Composition/information on ingredients

Chemical characterization: Substances
CAS# Description:
151-21-3 Sodium n-dodecyl sulfate
Identification number(s):
EC number: 205-788-1

4 First-aid measures

Description of first aid measures
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.

After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek medical treatment.

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
Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Sulfur oxides (SOx)
Sodium oxide
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Do not allow product to reach sewage system or any water course.
Do not allow to penetrate the ground/soil.
Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Prevention of secondary hazards: Keep away from ignition sources.
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
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Information about protection against explosions and fires:
Protect against electrostatic charges.
Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed. Store at room temperature.
Store in cool, dry conditions in well sealed containers.
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: No data
Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use suitable respirator when high concentrations are present.
Recommended filter device for short term use:
Use a respirator with type N95 (USA) or FFP (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality.
Quality will vary from manufacturer to manufacturer.
Material of gloves: Nitrile rubber, NBR
Eye protection: Safety glasses
Body protection: Protective work clothing.

9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form:</td>
</tr>
<tr>
<td>Various forms (powder/flake/crystalline/beads, etc.)</td>
</tr>
<tr>
<td>Formula:</td>
</tr>
<tr>
<td>C12H25O4S • Na</td>
</tr>
<tr>
<td>Weight:</td>
</tr>
<tr>
<td>288.38</td>
</tr>
<tr>
<td>pH-value:</td>
</tr>
<tr>
<td>Not applicable.</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
</tr>
<tr>
<td>ca 206 °C (ca 403 °F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Sublimation temperature / start:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
</tr>
<tr>
<td>Highly flammable.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Auto igniting:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Danger of explosion:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Explosion limits:</td>
</tr>
<tr>
<td>Lower:</td>
</tr>
<tr>
<td>Not determined</td>
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<tr>
<td>Upper:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor pressure:</td>
</tr>
<tr>
<td>Not applicable.</td>
</tr>
<tr>
<td>Density:</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>Relative density:</td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density:</td>
</tr>
<tr>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
</tr>
<tr>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with</td>
</tr>
<tr>
<td>Water at 20 °C (68 °F):</td>
</tr>
<tr>
<td>100 g/l</td>
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<tr>
<td>Partition coefficient (n-octanol/water):</td>
</tr>
<tr>
<td>Not determined.</td>
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<tr>
<td>Viscosity:</td>
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<tr>
<td>dynamic:</td>
</tr>
<tr>
<td>Not applicable.</td>
</tr>
<tr>
<td>kinematic:</td>
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<tr>
<td>Not applicable.</td>
</tr>
<tr>
<td>Other information</td>
</tr>
<tr>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity
Reactivity: No information known.
Chemical stability: Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions: Reacts with strong oxidizing agents
Incompatible materials: Oxidizing agents
Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Sulfur oxides (SOx)
Sodium oxide

11 Toxicological information

Information on toxicological effects
Acute toxicity:
Harmful in contact with skin.
Harmful if swallowed.
Danger through skin absorption.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Type</th>
<th>LD50</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1288 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>580 mg/kg (rabbit)</td>
<td></td>
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</tbody>
</table>

Skin irritation or corrosion: Causes skin irritation.
Eye irritation or corrosion: Causes serious eye irritation.
Sensitization: No sensitizing effects known.
Germ cell mutagenicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.
Carcinogenicity:
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.
Specific target organ system toxicity - repeated exposure: No effects known.
Specific target organ system toxicity - single exposure: May cause respiratory irritation.
Aspiration hazard: No effects known.
Subacute to chronic toxicity:
The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.
Additional toxicological information:
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12 Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Persistence No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes:
Do not allow product to reach ground water, water course or sewage system.
Do not allow material to be released to the environment without proper governmental permits.
Danger to drinking water if even small quantities leak into the ground.
Avoid transfer into the environment.
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: Consult state, local or national regulations to ensure proper disposal.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.
14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, ADR, IMDG, IATA</th>
<th>UN2926</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DOT</td>
<td>Flammable solids, toxic, organic, n.o.s. (Sodium n-dodecyl sulfate)</td>
</tr>
<tr>
<td>ADR</td>
<td>2926 Flammable solids, toxic, organic, n.o.s. (Sodium n-dodecyl sulfate)</td>
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</tr>
<tr>
<td>INDG, IATA</td>
<td>FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Sodium n-dodecyl sulfate)</td>
<td></td>
</tr>
</tbody>
</table>

Transport hazard class(es)

**DOT**

- **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- **Label** 4.1+6.1

**ADR**

- **Class** 4.1 (PT1) Flammable solids, self-reactive substances and solid desensitised explosives
- **Label** 4.1+6.1

**INDG, IATA**

- **Class** 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- **Label** 4.1+6.1

Packing group

<table>
<thead>
<tr>
<th>DOT, ADR, IMDG, IATA</th>
<th>II</th>
</tr>
</thead>
</table>

Environmental hazards: Not applicable.

Special precautions for user

<table>
<thead>
<tr>
<th>Danger code (Kanler):</th>
<th>Warning: Flammable solids, self-reactive substances and solid desensitised explosives</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS Number:</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>F-A,S-G</td>
</tr>
</tbody>
</table>

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

Transport/Additional information:

<table>
<thead>
<tr>
<th>DOT</th>
<th>Marine Pollutant (DOT): No</th>
</tr>
</thead>
</table>

UN "Model Regulation": UN2926, Flammable solids, toxic, organic, n.o.s. (Sodium n-dodecyl sulfate), 4.1 (6.1), II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer Substance is not listed.
Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.
Information about limitation of use: For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substances of very high concern (SVHC) according to REACH, Article 57
Substance is not listed.
REACH - Pre-registered substances Substance is listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information:

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

7/3/2014