Section 1 - Product and Company Information

Product Name                  DODECYL SULFATE, SODIUM SALT, 99+%, A.C.S. REAGENT  
Product Number               436143  
Brand                        ALDRICH  
Company                      Sigma-Aldrich  
Street Address               3050 Spruce Street  
City, State, Zip, Country    SAINT LOUIS MO 63103 US  
Technical Phone:             314 771 5765  
Emergency Phone:             414 273 3850 Ext. 5996  
Fax:                         800 325 5052  

Section 2 - Composition/Information on Ingredient

Substance Name                CAS #    SARA 313  
SODIUM DODECYL SULFATE         151-21-3 No  

Formula                      C12H25O4S.Na  

RTECS Number:     WT1050000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW  
Harmful.  
Irritating to eyes, respiratory system and skin. Harmful in contact with skin and if swallowed.  

HMIS RATING  
HEALTH: 2
For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material
Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed.

SPECIAL REQUIREMENTS
Hygroscopic.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Government approved respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Physical State: Solid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Color: White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Form: Powder</td>
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</tr>
<tr>
<td>Molecular Weight</td>
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<tr>
<td>MP/MP Range</td>
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<td>Freezing Point</td>
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<tr>
<td>Vapor Pressure</td>
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<td>Vapor Density</td>
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<td>Odor Threshold</td>
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<td>Volatile%</td>
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<tr>
<td>Solvent Content</td>
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<td>Evaporation Rate</td>
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<tr>
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<td>Explosion Limits</td>
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<td>Optical Rotation</td>
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</tr>
<tr>
<td>Miscellaneous Data</td>
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</tr>
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</table>
Solubility

Solubility in Water: Soluble, clear, colorless
Solvent: Insoluble.
Other Solvents: ISP.ALC, XYLE

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur oxides.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: Harmful if absorbed through skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

SENSITIZATION
Sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

SIGNS AND SYMPTOMS OF EXPOSURE
The sodium salt of dodecyl sulfate has been reported to cause pulmonary sensitization resulting in hyperactive airway dysfunction and pulmonary allergy accompanied by fatigue, malaise, and aching. Significant symptoms of exposure can persist for more than two years and can be activated by a variety of nonspecific environmental stimuli such as automobile exhaust, perfumes, and passive smoking. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA
Skin
Rat
2,000 mg/kg
100% MORTALITY
LD50
Skin
Rabbit
580 mg/kg
LD50
Skin
Guinea pig
> 1,200 mg/kg
LD50
Oral
Rat
1288 mg/kg
LD50

Inhalation
Rat
> 3,900 mg/m3
LC50

Intraperitoneal
Rat
210 MG/KG
LD50

Intravenous
Rat
118 MG/KG
LD50

Intraperitoneal
Mouse
250 MG/KG
LD50

Behavioral: Change in motor activity (specific assay).
Vascular: Regional or general arteriolar or venous dilation.

Intravenous
Mouse
118 MG/KG
LD50

IRRITATION DATA

Skin
Human
250 mg
24H
Remarks: Mild irritation effect

Skin
Human
25 mg
24H
Remarks: Moderate irritation effect

Skin
Mouse
25 mg
24H
Remarks: Severe irritation effect

Skin
Dog
25 mg
24H
Remarks: Mild irritation effect

Skin
Rabbit
50 mg
24H
Remarks: Severe irritation effect
Skin Rabbit 25 mg 24H Remarks: Moderate irritation effect

Skin Rabbit 250 mg 24H Remarks: Moderate irritation effect

Skin Rabbit 10 mg 24H

Skin Rabbit 50 mg 24H Remarks: Mild irritation effect

Eyes Rabbit 100 mg 24H Remarks: Moderate irritation effect

Eyes Rabbit 0.25 mg Remarks: Mild irritation effect

Eyes Rabbit 2 mg

Eyes Rabbit 10 mg Remarks: Moderate irritation effect

Skin Pig 25 mg 24H Remarks: Mild irritation effect

Skin Guinea pig 25 mg 24H Remarks: Mild irritation effect

CHRONIC EXPOSURE - TERATOGEN

Species: Mouse Dose: 480 MG/KG Route of Application: Skin Exposure Time: (6-13D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

CHRONIC EXPOSURE – MUTAGEN

Species: Human
Dose: 100 MG/L
Cell Type: lymphocyte
Mutation test: DNA inhibition

Species: Rat
Dose: 243 UMOL/L
Cell Type: liver
Mutation test: DNA damage

Species: Guinea pig
Dose: 60 UMOL/L
Cell Type: kidney
Mutation test: DNA inhibition

Section 12 – Ecological Information

No data available.

PHYSICAL PROPERTIES AFFECTING ECOTOXICITY
COD: 95.1 %
BOD: 95.9 %

ACUTE ECOTOXICITY TESTS
Test Type: LC50 Fish
Species: Onchorhynchus mykiss (Rainbow trout)
Time: 96 h
Value: 3.6 mg/l

Section 13 – Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Section 14 – Transport Information

DOT
Proper Shipping Name: Toxic solids, organic, n.o.s.
UN#: 2811
Class: 6.1
Packing Group: Packing Group III
Hazard Label: Toxic substances.
PIH: Not PIH

IATA
Proper Shipping Name: Toxic solid, organic, n.o.s.
IATA UN Number: 2811
Hazard Class: 6.1
Packing Group: III

Section 15 – Regulatory Information

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 21/22 36/37/38
Risk Statements: Harmful in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin.

S: 26 36 36/37
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. Wear suitable protective clothing and gloves.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Irritating to eyes, respiratory system and skin. Harmful in contact with skin and if swallowed.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.