

MATERIAL SAFETY DATA SHEET

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Version 1.7

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
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Section 2 - Composition/Information on Ingredient

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

Formula C12H25O4S.Na
Synonyms AI3-00356 * Akyposal SDS * Aquarex ME * Aquarex
methyl * Avirol 101 * Avirol 118 conc * Berol 452
* Carsonol SLS * Carsonol SLS Paste B * Carsonol
SLS Special * Conco sulfate WA * Conco sulfate
WA-1200 * Conco sulfate WA-1245 * Conco Sulfate
WAG * Conco Sulfate WAN * Conco Sulfate WAS *
Conco sulfate WN * CP 75424 * Cycloryl 21 *
Cycloryl 31 * Cycloryl 580 * Cycloryl 585N *
Dehydtag sulfate GL emulsion * Dehydtag sulphate GL
emulsion * Detergent 66 * Dodecyl alcohol,
hydrogen sulfate, sodium salt * Dodecyl sodium
sulfate * Dodecyl sulfate sodium * n-Dodecyl
sulfate sodium * Dodecyl sulfate, sodium salt *
Dreft * Duponal * Duponal WAQE * Duponol *
Duponol C * Duponol ME * Duponol methyl * Duponol
QX * Duponol WA * Duponol WA Dry * Duponol WAQ *
Duponol WAQA * Duponol WAQE * Duponol WAQM * EMAL
O * EMAL 10 * Emersal 6400 * Empicol LPZ *
Empicol LS 30 * Empicol LX 28 * Emulsifier No.
104 * Finasol osr(sub 2) * Gardinol * Hexamol SLS
* Incronol SLS * Irium * Jordanol SL-300 *
Lanette wax-S *

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

FLAMMABILITY: 0
REACTIVITY: 1

NFPA RATING

HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 1

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

pickup is complete.

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

Appearance	Physical State: Solid	
	Color: White	
	Form: Powder	
Property	Value	At Temperature or Pressure
Molecular Weight	288.38 AMU	
pH	7.2	
BP/BP Range	N/A	
MP/MP Range	204 - 207 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	0.37 g/cm ³	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	

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
Remarks: Behavioral:Somnolence (general depressed activity).
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: Mild irritation effect

Skin
Mouse
25 mg
24H
Remarks: Moderate 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.