

## MATERIAL SAFETY DATA SHEET

NFPA	HMIS	Personal Protective Equipment
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Health Hazard	2
Fire Hazard	1
Reactivity	0



See Section 8.

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product code:</b>	S1331
<b>Product Name:</b>	SODIUM LAURYL SULFATE, ULTRAPURE
<b>Chemical Name:</b>	Sulfuric acid, monododecyl ester, sodium salt
<b>Synonyms:</b>	Sodium dodecyl sulfate; Aquarex methyl; Dodecyl alcohol, hydrogen sulfate, sodium salt; Dodecyl sulfate sodium; Drefit; Duponal; Gardinal; Irium; Lauryol Sodium Sulfate; Lauryl sulfate, sodium salt; Melanol CL; Perlandrol L; Sodium n-dodecyl sulfate; Sodium Lauryl Sulphate; Sodium monododecyl sulfate; Sodium monolauryl sulfate; Stepanol ME; Standapol WAQ; Stepanol WAQ; Witcolate C, Witcolate A
<b>Recommended use:</b>	Emulsifying agent.
<b>CAS #:</b>	151-21-3
<b>RTECS #</b>	WT1050000
<b>Formula:</b>	C12-H25-O4-S-Na
<b>CI#:</b>	Not available
<b>Supplier:</b>	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
<b>Order Online At:</b>	<a href="https://www.spectrumchemical.com">https://www.spectrumchemical.com</a>
<b>Emergency Telephone Number:</b>	CHEMTREC: 1-800-424-9300
<b>Contact Person:</b>	Regina Wachenheim (East Coast)
<b>Contact Person:</b>	Martin LaBenz (West Coast)

### 2. HAZARDS IDENTIFICATION

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### EMERGENCY OVERVIEW

WARNING!

Harmful if absorbed through skin

May be harmful if swallowed

Irritating to eyes

Irritating to skin

MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR

**Odor:**

Faint odor of fatty substances.

**Physical state:**

Solid.

**Appearance:**

Powder.

**Color:**

White. Light yellow.

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

### POTENTIAL HEALTH EFFECTS

**Principal Routes of Exposure:**

Ingestion. Inhalation.

**Acute Potential Health Effects:**

**Skin Contact:**

Toxic in contact with skin. Causes skin irritation.

**Eye Contact:**

Causes eye irritation.

**Inhalation:**

Irritating to respiratory system.

**Ingestion:**

May be harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting, and diarrhea. May cause bloating. May affect the liver.

**Chronic Potential Health Effects:**

**Component**

Sodium Lauryl Sulfate  
151-21-3 (100)

**Carcinogen Status:**

No information available

**Target Organs:**

No information available

**Mutagenic Effects:**

May affect genetic material  
Mutations in microorganisms

**Teratogenic Effects:**

No information available

**Aggravated Medical Conditions:** No information available

**See Section 11 for additional Toxicological Information**

### POTENTIAL ENVIRONMENTAL EFFECTS

No information available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Sodium Lauryl Sulfate	151-21-3	100

### 4. FIRST AID MEASURES

<b>General Advice:</b>	Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
<b>Skin Contact:</b>	Toxic in contact with skin. Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Get medical attention. Call a physician or Poison Control Centre immediately.
<b>Eye Contact:</b>	Flush eye with water for 15 minutes. Get medical attention.
<b>Inhalation:</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Harmful if swallowed. Obtain medical attention.
<b>Notes to Physician:</b>	Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

#### Flammable Properties

<b>Flashpoint (°C/°F):</b>	No information available.
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<b>Flash Point Tested according to:</b> Not available
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<b>Lower Explosion Limit (%):</b>	No information available
<b>Upper Explosion Limit (%):</b>	No information available

<b>Autoignition Temperature (°C/°F):</b>	No information available
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<b>Suitable Extinguishing Media:</b>	Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Water spray mist or foam.
<b>Unsuitable Extinguishing Media:</b>	No information available.
<b>Hazardous Combustion Products:</b>	Carbon monoxide; Carbon dioxide
<b>Specific hazards:</b>	May be combustible at high temperatures. Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
<b>Special Protective Equipment for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Specific Methods:**

No information available.

**6. ACCIDENTAL RELEASE MEASURES****Personal Precautions:**

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Avoid dust formation. Avoid dispersal of dust in the air. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Nonsparking tools should be used.

**Environmental Precautions:**

No information available.

**Methods for Cleaning Up:**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE****Handling****Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Minimize dust generation and accumulation. Avoid dust formation. Dry powders can build static electricity charges when subjected to friction of transfer and mixing operations. All equipment used when handling the product must be grounded. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from incompatible materials.

**Safe Handling Advice:**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not ingest. Do not breathe vapours/dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

**Storage****Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**

Strong oxidizing agents.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment) It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment

**Personal Protective Equipment**

**Eye protection:** Goggles.

**Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves.

**Respiratory protection:** Wear respirator with dust filter..

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

**National occupational exposure limits****United States**

U.S Occupational Exposure Limits: Not determined

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Sodium Lauryl Sulfate - 151-21-3	None	None	None	None

**Canada**

Canada Occupational Exposure Limits: Not determined

Components	Alberta	British Columbia	Ontario	Quebec
Sodium Lauryl Sulfate 151-21-3	None	None	None	None

**Australia and Mexico**

Occupational Exposure Limits for Australia and Mexico: Not determined

Components	Australia	Mexico
Sodium Lauryl Sulfate 151-21-3	None	None

**9. PHYSICAL AND CHEMICAL PROPERTIES**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid.	<b>Appearance:</b> Powder.	<b>Color:</b> White. Light yellow.
<b>Odor:</b> Faint odor of fatty substances.	<b>Taste</b> No information available	<b>Molecular/Formula weight:</b> 288.38
<b>Flash point (°C):</b> No data available	<b>Lower Explosion Limit (%):</b> No information available	<b>Upper Explosion Limit (%):</b> No information available
<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Melting point/range(°C/°F):</b> 204-207 °C/399.2-404.6 °F	<b>Boiling point/range(°C/°F):</b> No information available
<b>pH:</b> No information available	<b>Specific gravity:</b> 0.4-0.48	<b>Density (g/cm3):</b> No information available
<b>Decomposition temperature(°C/°F):</b> No information available	<b>Bulk density:</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> 1.6	<b>Miscibility:</b> No information available
<b>Solubility:</b> Soluble in Water Solubility in Water: 150 g/L at 20 °C		

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions
<b>Conditions to avoid:</b>	Heat. Avoid dust formation. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Incompatible materials.
<b>Incompatible Materials:</b>	Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	Carbon monoxide. Carbon dioxide. Sulphur oxides. Sodium oxides.
<b>Possibility of Hazardous Reactions:</b>	No information available
<b>Polymerization:</b>	Hazardous polymerisation does not occur
<b>Corrosivity:</b>	No information available
<b>Special Remarks on Corrosivity:</b>	No information available

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

### Component Information

*Sodium Lauryl Sulfate - 151-21-3*

**LD50/oral/rat** = 1288 mg/kg Oral LD50 Rat (RTECS)  
 977 mg/kg (LOLI and European Commission IUCLID dataset)  
**LD50/oral/mouse** = No information available  
**LD50/dermal/rat** = No information available  
**LD50/dermal/rabbit** = 580 mg/kg Dermal LD50Rabbit  
**LC50/inhalation/rat** = >3900 mg/m<sup>3</sup> Inhalation LC50 Rat 1 h  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

**Product Information**

**LC50/inhalation/rat** >3900 mg/m<sup>3</sup> 1 hr  
**LC50/Inhalation/mouse** No information available  
**LD50/dermal/rabbit** 580mg/kg  
**LD50/dermal/rat** No information available  
**LD50/oral/mouse** = No information available  
**LD50/oral/rat** = 977mg/kg

**Local Effects**

**Skin irritation:** Causes skin irritation.  
**Eye irritation:** Causes eye irritation.  
**Inhalation:** Irritating to respiratory system. Symptoms may include coughing and shortness of breath. May cause sore throat.  
**Ingestion:** May be harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting, diarrhea. May cause bloating. May affect behavior/central nervous system (somnolence).  
**Sensitization:** No information available

**Chronic Toxicity**

**Chronic Toxicity** Prolonged or repeated ingestion may affect the liver. Prolonged or repeated skin contact may cause dryness of the skin. Prolonged skin contact may cause skin irritation and/or dermatitis.

**Carcinogenic effects:** Not considered carcinogenic

Components	NTP	IARC	OSHA HCS - Carcinogens	ACGIH - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Sodium Lauryl Sulfate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects:** May affect genetic material  
 Mutations in microorganisms

**Reproductive Effects:** May cause adverse developmental effects based on animal data. Increased rates of fetal anomalies and fetal death were reported in association with maternal toxicity among the offspring of pregnant mice treated orally with 200 mg/kg/day or topically with 170 to 1700 mg/kg/day of Sodium Lauryl Sulfate (REPROTOX). No information on developmental toxicity effects on humans was found.

**Teratogenic Effects:** No information available

**Target Organs:** No information available

## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

**Toxicity to terrestrial and aquatic plants and animals:** No information available

**Ecotoxicity effects:** Aquatic environment.

**Aquatic toxicity:**

*Sodium Lauryl Sulfate - 151-21-3*

**Freshwater Algae Data:** 3.59 - 15.6 mg/L EC50 *Pseudokirchneriella subcapitata* 96 h  
30 - 100 mg/L EC50 *Desmodesmus subspicatus* 96 h  
117 mg/L EC50 *Pseudokirchneriella subcapitata* 96 h  
53 mg/L EC50 *Desmodesmus subspicatus* 72 h

**Freshwater Fish Species Data:** 10.2 - 22.5 mg/L LC50 *Pimephales promelas* 96 h semi-static 1  
10.8 - 16.6 mg/L LC50 *Poecilia reticulata* 96 h static 1  
13.5 - 18.3 mg/L LC50 *Poecilia reticulata* 96 h semi-static 1  
15 - 18.9 mg/L LC50 *Pimephales promelas* 96 h static 1  
22.1 - 22.8 mg/L LC50 *Pimephales promelas* 96 h static 1  
4.06 - 5.75 mg/L LC50 *Lepomis macrochirus* 96 h static 1  
4.2 - 4.8 mg/L LC50 *Lepomis macrochirus* 96 h flow-through 1  
4.3 - 8.5 mg/L LC50 *Oncorhynchus mykiss* 96 h static 1  
5.8 - 7.5 mg/L LC50 *Pimephales promelas* 96 h static 1  
6.2 - 9.6 mg/L LC50 *Pimephales promelas* 96 h 1  
8 - 12.5 mg/L LC50 *Pimephales promelas* 96 h static 1  
9.9 - 20.1 mg/L LC50 *Brachydanio rerio* 96 h semi-static 1  
1.31 mg/L LC50 *Cyprinus carpio* 96 h semi-static 1  
4.2 mg/L LC50 *Oncorhynchus mykiss* 96 h 1  
4.5 mg/L LC50 *Lepomis macrochirus* 96 h 1  
4.62 mg/L LC50 *Oncorhynchus mykiss* 96 h flow-through 1  
7.97 mg/L LC50 *Brachydanio rerio* 96 h flow-through 1  
**Water Flea Data:** 1.8 mg/L EC50 *Daphnia magna* 48 h

**Mobility:** Expected to be immobile in soil based on estimated Koc.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** Potential for bioconcentration in aquatic organisms is moderate.

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Lauryl Sulfate	None	None	None	None

## 14. TRANSPORT INFORMATION

DOT

**UN-No:** UN2811

**Proper Shipping Name:** Toxic solids, organic, n.o.s.

**Product code:** S1331

**Product name:** SODIUM LAURYL  
SULFATE, ULTRAPURE

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**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** Not applicable  
**Marine Pollutant:** No data available  
**ERG No:** 154  
**DOT RQ (lbs):** No information available  
**Symbol(s):** G

**TDG (Canada)**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Description:** No information available

**ADR**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

**IMO / IMDG**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant:** No information available  
**EMS:** F-A  
**MFAG:** No information available  
**Maximum Quantity:** No information available

**RID**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** 6.1  
**Classification Code:** No information available  
**Description:** No information available

**ICAO**

**UN-No:** UN2811  
**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Description:** No information available

**IATA**

**UN-No:** UN2811

**Proper Shipping Name:** Toxic solid, organic, n.o.s.  
**Hazard Class:** 6.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**ERG Code:** 6L  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Sodium Lauryl Sulfate	Present	Present	Present KE-21884	Present (2)-1679 (2)-1675	Present	Present	Present 205-788-1

### U.S. Regulations

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

##### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

##### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sodium Lauryl Sulfate	Not Listed	Not Listed	Not Listed	Not Listed

### CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
Sodium Lauryl Sulfate	None	None	None	None	None

### U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Sodium Lauryl Sulfate	Not Applicable	Not Applicable

### Canada

#### WHMIS hazard class:

D2B Toxic materials

#### Sodium Lauryl Sulfate

D2B

#### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Sodium Lauryl Sulfate	1 %

## Inventory

Components	Canada (DSL)	Canada (NDSL)
Sodium Lauryl Sulfate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sodium Lauryl Sulfate	Not listed	Not listed

## EU Classification

### R-phrases

R21/22 - Harmful in contact with skin and if swallowed.

R36/37/38 - Irritating to eyes, respiratory system and skin.

Components	Classification	Concentration Limits:	Safety Phrases
Sodium Lauryl Sulfate		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

### Indication of danger:

Xn - Harmful.

Xi - Irritant.

Xn



Xi



## 16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1/Z129.1-2010 standards.

Preparation Date:	21-Aug-2014
Reason for revision:	Not applicable
Prepared by:	Sonia Owen
Literature reference:	No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.