

## Safety Data Sheet


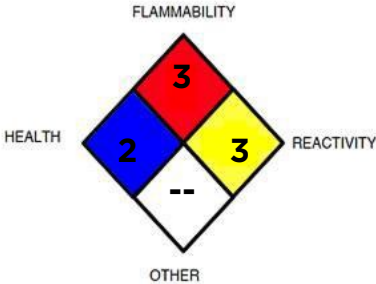
### Section 1: Product & Company Identification

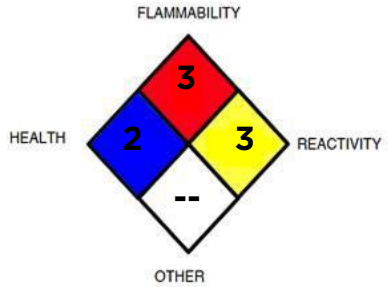
<b>Product Name:</b>	Sodium Dodecyl Sulfate
<b>Product #:</b>	S-2451
<b>Synonyms:</b>	SDS; Lauryl sulfate
<b>Supplier:</b>	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925
<b>Emergency Tele#:</b>	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

### Section 2: Composition / Information on Ingredients

Component	CAS #	EC #	% Composition
Sodium Dodecyl Sulfate	151-21-3	205-788-1	≥ 99.5

### Section 3: Hazards Identification

<b>Symbols</b>	
<b>HMIS Classification</b>	<p>FLAMMABILITY</p>  <p>HEALTH      REACTIVITY</p> <p>OTHER</p>

<b>NFPA Classification</b>	
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## Section 4: First Aid Measures

<b>General Overview:</b>	Consult a doctor and show this safety data sheet.
<b>Inhalation:</b>	Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
<b>Skin:</b>	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
<b>Eyes:</b>	Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
<b>Ingestion:</b>	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.
	See section 11 for more detailed information on health effects & symptoms.

## SECTION 5: Fire Fighting Measures

<b>Flammability of the product:</b>	Flammable
<b>Extinguishing Media:</b>	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
<b>Hazardous thermal (de)composition products:</b>	No data available
<b>Special Fire Fighting Procedures:</b>	Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.
<b>Flash Point:</b>	>150°C

## Section 6: Accidental Release Measures




<b>Personal Precautions:</b>	Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust, or gas.
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<b>Environmental Precautions:</b>	Do not let product enter drains.
<b>Methods for Clean-up:</b>	Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

## SECTION 7: Handling & Storage

<b>Storage:</b>	Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Store at room temperature.
<b>Handling:</b>	Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

## SECTION 8: Exposure controls / Personal Protection

<b>Respiratory Protection:</b>	 <p>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</p>
<b>Skin and Body:</b>	  <p>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. Wear appropriate protective clothing. Complete suit protecting against chemicals, the type of protective equipment must be selected according to the</p>

	concentration and amount of the dangerous substance at the specific workplace.
<b>Eyes:</b>	 <p>Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p>
<b>Ventilation/Engineering Measures:</b>	Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.
<b>Hygiene:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Other:</b>	Contains no substances with occupational exposure limit values.

## SECTION 9: Physical and Chemical Properties

<b>Appearance &amp; Odor:</b>	White to off-white solid, odorless
<b>Formula</b>	$C_{12}H_{25}O_4SNa$
<b>Molecular Wt.</b>	288.4
<b>Melting Pt.</b>	204 - 207°C
<b>Boiling Pt.</b>	No data available
<b>pH 1% aqueous solution:</b>	8.5 - 10.0
<b>Density:</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Solubility:</b>	Water
<b>Flash Point:</b>	>150°C
<b>Autoignition Temp:</b>	No data available

## SECTION 10: Stability and Reactivity

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Hazardous decomposition products:</b>	No data available
<b>Materials to Avoid:</b>	Strong oxidizing agents
<b>Conditions to avoid:</b>	Heat, flames, sparks

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	N/A
<b>ACUTE Toxicity:</b>	LD50 Oral = 1,200 mg/kg (Rat) LD50 Dermal = 580 mg/kg (Rabbit) LD50 Inhalation = >3,900 mg/m <sup>3</sup> (Rat) 1 h
<b>CHRONIC Toxicity:</b>	N/A
<b>Chronic Exposure:</b> <b>Carcinogen:</b> <b>Mutagen:</b> <b>Teratogen:</b> <b>Reproductive:</b>	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA

## SECTION 12: Ecological Information

<b>Ecotoxicity:</b>	<p>Toxicity to Fish:</p> <p>LC50 15-18.9 mg/L Pimephales promelas 96 h  LC50 4.06-5.75 mg/L Lepomis macrochirus 96 h  LC50 4.2-4.8 mg/L Lepomis macrochirus 96 h  LC50 6.2-9.6 mg/L Pimephales promelas 96 h  LC50= 4.2 mg/L Oncorhynchus mykiss 96 h  LC50 13.5-18.3 mg/L Poe cilia reticulate 96 h  LC50 5.8-7.5 mg/L Pimephales promelas 96 h  LC50 9.9-20.1 mg/L Brachydanio rerio 96 h  LC50 10.2-22.5 mg/L Pimephales promelas 96 h  LC50 8-12.5 mg/L Pimephales promelas 96 h  LC50= 4.5 mg/L Lepomis macrochirus 96 h  LC50= 4.62 mg/L Oncorhynchus mykiss 96 h  LC50 10.8-16.6 mg/L Poe cilia reticulate 96 h  LC50 22.1-22.8 mg/L Pimephales promelas 96 h  LC50 4.3-8.5 mg/L Oncorhynchus mykiss 96 h  LC50= 1.31 mg/L Cyprinus carpio 96 h  LC50= 7.97 mg/L Brachydanio rerio 96 h</p> <p>Toxicity to Algae:</p> <p>EC50 = 3.59 - 15.6 mg/L 96 h  EC50 = 117 mg/L 96 h  EC50 = 53 mg/L 72 h</p>
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	EC50 = 30 - 100 mg/L 96 h
<b>Mobility:</b>	No data available
<b>Persistence and degradability:</b>	Biodegradability: aerobic - Exposure time 28 d Result: 95 % - Readily biodegradable (OECD Test Guideline 301B) Ratio BOD/ThBOD 95.9%
<b>Bioaccumulative potential:</b>	Cyprinus carpio (Carp) - 72 h Bioconcentration factor (BCF): 3.9 - 5.3
<b>Other adverse effects:</b>	No data available
<b>Corrosivity Characteristic:</b>	No data available
<b>General Notes:</b>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## SECTION 13: Disposal Considerations

<b>Residue Waste or Unused product:</b>	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.
<b>Contaminated Packaging:</b>	Dispose of container and unused contents in accordance with federal, state and local requirements.

## SECTION 14: Transportation Information

<b>UN ID#:</b>	UN 1325
<b>ADR / RID (LAND):</b>	N/A
<b>DOT regulations:</b>	UN 1325 Proper Shipping Name: FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULFATE) Hazard Class: 4.1 Packaging Group: III
<b>IMDG/IMO (SEA):</b>	UN 1325 Proper Shipping Name: FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULFATE) Hazard Class: 4.1 Packaging Group: III
<b>IATA/DGR (AIR):</b>	UN 1325 Proper Shipping Name: FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM DODECYL SULFATE) Hazard Class: 4.1 Packaging Group: III
<b>Special Provisions:</b>	N/A

## SECTION 15: Regulatory Information

<b>Health Phrases:</b>	<p>Danger!</p> <p>H228 Flammable solid.</p> <p>H302 Harmful if swallowed</p> <p>H315 Causes skin irritation</p> <p>H318 Causes serious eye damage</p> <p>H332 Harmful if inhaled</p> <p>H335 May cause respiratory irritation</p>
<b>Risk Phrases:</b>	<p>P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.</p> <p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.</p> <p>P261 Avoid breathing dust/fume/gas/mist/vapors/spray.</p> <p>P264 Wash skin thoroughly after handling</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p>
<b>Safety Phrases:</b>	<p>P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P321 Specific treatment (see. on this label).</p> <p>P330 Rinse mouth.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.</p> <p>P310 Immediately call a POISON CENTER or doctor/ physician</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P332 + P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P362 + P364 Take off contaminated clothing and wash before reuse.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container to an approved waste disposal plant.</p>
<b>EU Regulations:</b>	N/A
<b>US Regulations:</b>	<p>TSCA: Listed</p> <p>California Proposition 65: No products were found</p> <p>New Jersey State Right to Know: Listed</p> <p>Pennsylvania State Right to Know: Listed</p>
<b>U.S. Federal Regulations:</b>	<p>SARA 302/304 emergency planning and notification: No products were found.</p> <p>SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Acute Health Hazard</p>

	<p>SARA 313 toxic chemicals notification and release reporting: No products were found.</p> <p>Clean Water Act (CWA) 307: No products were found.          Clean Water Act (CWA) 311: No products were found.          Clean Air Act (CAA) 112 accidental release prevention: No products were found.          Clean Air Act (CAA) 112 regulated flammable substances: No products were found.          Clean Air Act (CAA) 112 regulated toxic substances: No products were found.</p> <p>OSHA: Flammable solids (Cat. 2); Acute toxicity, oral (Cat. 4); Skin corrosion/irritation (Cat. 2); Serious eye damage (Cat. 1); Acute toxicity, inhalation (Cat. 4); Specific target organ toxicity, single exposure, respiratory tract irritation (Cat. 3)</p>
<b>WHMIS (Canada):</b>	DSL: Listed

## SECTION 16: Other Information

**LIABILITY STATEMENT:** *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*