

1. Product and Company Identification

Material name	SODIUM DODECYL SULFATE
Version #	02
Revision date	08-29-2011
CAS #	151-21-3
Product Codes	J.T.Baker: 4095, L050 Macron: 1894, 29911
Synonym(s)	Sodium lauryl sulfate; Duponol; Dodecyl sodium sulfate; Sulfuric acid, monodecyl ester, sodium salt
Manufacturer	Avantor Performance Materials, Inc.
Address	3477 Corporate Parkway Suite #200 Center Valley, PA 18034 US
Customer Service	855-282-6867
24 Hour Emergency	908-859-2151
Chemtrec	800-424-9300

2. Hazards Identification

Emergency overview	DANGER
	Flammable solid. Will be easily ignited by heat, spark or flames. Dust may form explosive mixture with air.
	Harmful if absorbed through skin or swallowed. Causes skin and eye irritation. Dust is irritating to the eyes and respiratory tract.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Causes eye irritation.
Skin	Harmful if absorbed through skin. Dust or powder may irritate the skin. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.
Inhalation	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing.
Ingestion	Harmful if swallowed. Irritating. May cause nausea, stomach pain and vomiting.
Target organs	Eyes. Skin. Respiratory system.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Potential environmental effects	Very toxic to aquatic organisms.

3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
SODIUM DODECYL SULFATE	151-21-3	90 - 100

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. In case of irritation from airborne exposure, move to fresh air. Get medical attention if irritation develops and persists.

Skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
Inhalation	Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Ingestion	Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.
Notes to physician	Treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	Flammable solid. Dust may form explosive mixture with air.
Extinguishing media	
Suitable extinguishing media	Water. Carbon dioxide (CO2). Dry chemical. Foam.
Unsuitable extinguishing media	None known.
Protection of firefighters	
Specific hazards arising from the chemical	Dust accumulation from this product may present an explosion hazard in the presence of an ignition source.
Protective equipment and precautions for firefighters	Firefighters should wear full protective gear. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific methods	In the event of fire, cool tanks with water spray. In the event of fire and/or explosion do not breathe fumes.
Hazardous combustion products	Carbon monoxide and carbon dioxide. Sulfur oxides. Sodium oxides.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep upwind. Ventilate the area. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Do not allow to enter drains, sewers or watercourses. Prevent further leakage or spillage if safe to do so.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Avoid dust formation. Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water. Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Keep formation of airborne dusts to a minimum. Dust may form explosive mixture with air. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.
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Storage Keep container tightly closed in a cool, well-ventilated place. Eliminate sources of ignition.

8. Exposure Controls / Personal Protection

Engineering controls Use explosion-proof ventilation equipment. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Eye / face protection Wear safety glasses with side shields (or goggles).

Skin protection Wear suitable protective clothing and gloves.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear respirator with dust filter.

General hygiene considerations Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance Powder.

Color White to light yellow.

Odor Slight.

Odor threshold Not available.

Physical state Solid.

Form Not available.

pH Not available.

Melting point Not available.

Freezing point Not available.

Boiling point Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not available.

Vapor density Not available.

Specific gravity 0.4 @ 15°C/4°C

Relative density Not available.

Solubility (water) slight

Partition coefficient (n-octanol/water) 1.6

Auto-ignition temperature Not available.

Molecular weight 288.38 g/mol

Molecular formula C12-H26-O4-S.Na

10. Chemical Stability & Reactivity Information

Chemical stability Stable under normal temperature conditions. Risk of ignition.

Conditions to avoid Heat, sparks, flames. Avoid dust close to ignition sources.

Incompatible materials Strong oxidizing agents. Acids.

Hazardous decomposition products Carbon monoxide. Carbon Dioxide. Sulfur oxides. Sodium oxides.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product

Test Results

SODIUM DODECYL SULFATE (151-21-3)

Acute Dermal LD50 Rabbit: 580 mg/kg

Acute Oral LD50 Rat: 1288 mg/kg

Sensitization

May cause allergic skin disorders in sensitive individuals.

Acute effects

Harmful if absorbed through skin or swallowed.

Local effects

Causes skin and eye irritation. Inhalation of dusts may cause respiratory irritation.

Chronic effects

Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Skin corrosion/irritation

Causes skin irritation.

Epidemiology

No epidemiological data is available for this product.

Mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive effects

Contains no ingredient listed as toxic to reproduction

Teratogenicity

Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. The relevance to humans is uncertain.

Symptoms and target organs

Irritation.

Further information

Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Product

Test Results

SODIUM DODECYL SULFATE (151-21-3)

EC50 Water flea (Daphnia obtusa): 9.2 mg/l 48.00 hours

LC50 Carp, hawk fish (Cirrhinus mrigala): 0.59 mg/l 96.00 hours

Ecotoxicity

Very toxic to aquatic life.

Persistence and degradability

Expected to be readily biodegradable.

Partition coefficient (n-octanol/water)

1.6

13. Disposal Considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations. Incinerate the material under controlled conditions in an approved incinerator.

Contaminated packaging

Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number

UN1325

Proper shipping name

Flammable solids, organic, n.o.s. (SODIUM LAURYL SULFATE)

Hazard class

4.1

Packing group

III

Environmental hazards

Marine pollutant

Yes

Additional information:

Special provisions A1, IB8, IP3, T1, TP33

Basic shipping requirements:

Labels required 4.1

Additional information:

Packaging exceptions 151

Packaging non bulk 213

Packaging bulk 240

ERG number 133

IATA

Basic shipping requirements:

UN number 1325

Proper shipping name Flammable solid, organic, n.o.s. (SODIUM LAURYL SULFATE)

Hazard class 4.1

Packing group III

Environmental hazards

Marine pollutant Yes

Additional information:

ERG code 3L

IMDG

Basic shipping requirements:

UN number 1325

Proper shipping name FLAMMABLE SOLID, ORGANIC, N.O.S. (SODIUM LAURYL SULFATE)

Hazard class 4.1

Packing group III

Environmental hazards

Marine pollutant Yes



DOT



IATA



IMDG

15. Regulatory Information

US federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Saf-T-Data
Health: 2 - Moderate
Flammability: 3 - Severe (Flammable)
Reactivity: 1 - Slight
Contact: 3 - Severe (Life)
Lab Protective Equip: D - GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code: R - Red (Flammable)

16. Labeling Info

Label Hazard Warning DANGER

Flammable solid. Will be easily ignited by heat, spark or flames. Dust may form explosive mixture with air. Harmful if absorbed through skin or swallowed. Causes skin and eye irritation. Dust is irritating to the eyes and respiratory tract.

Label Precautions Keep away from heat, sparks and flame. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Keep container closed.

Label First Aid Immediately flush eyes with plenty of water for at least 15 minutes. Immediately flush skin with plenty of water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

17. Other Information

NFPA ratings Health: 2
Flammability: 3
Instability: 0

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Issue date

08-29-2011