

MATERIAL SAFETY DATA SHEET**SODIUM DODECYL SULPHATE**

PRODUCT CODE NUMBER(S): 7770-1, 7771-1

PRODUCT IDENTIFICATION**Chemical Name and Synonyms:** *Sodium dodecyl sulphate; Sodium lauryl sulphate***Chemical Family:** *Alkyl sulphate salt***Chemical Formula:** $C_{12}H_{25}NaO_4S$ **Product Use:** *Laboratory reagent***Manufacturer's Name and Address:***Caledon Laboratories Ltd.**40 Armstrong Avenue**Georgetown, Ontario L7G 4R9***Telephone No:** (905) 877-0101**Fax No:** (905) 877-6666**Emergency Telephone No:** CANUTEC (613) 996-6666**HAZARDOUS INGREDIENTS OF MATERIALS**

<i>Ingredients</i>	<i>%</i>	<i>TLV Units</i>	<i>CAS No.</i>
<i>Sodium dodecyl sulphate</i>	<i>>98</i>	<i>Not established</i>	<i>151-21-3</i>

PHYSICAL DATA**Physical State:** *Solid***Odour and Appearance:** *White or cream-coloured crystals, flakes or powder. Faint "fatty" odour.***Odour Threshold (ppm):** *Not available***Vapour Pressure (mm Hg):** *Practically zero***Vapour Density (Air = 1):** *Not applicable***Evaporation Rate:** *Not applicable***Boiling Point (degrees C):** *Not applicable (decomposes)***Melting Point (degrees C):** *204 - 207°C***pH:** *7.3 to 8.5 (liquid, paste); 7.5 to 11 (powder)***Specific Gravity:** *>1.1 @ 20°C***Coefficient of Water/Oil distribution:** *LogP(oct)=1.60***SHIPPING DESCRIPTION****UN:** *Not regulated***T.D.G. Class:** *Not regulated***Pkg. Group:** *Not regulated***REACTIVITY DATA****Chemical Stability:** *Stable***Incompatibility with other substances:** *Increased risk of fire with strong oxidizing agents. Avoid strong acids.***Reactivity:** *Avoid excessive heat, ignition sources, and all incompatible materials.***Hazardous Decomposition Products:** SO_x , CO_x , Na_2O **FIRE AND EXPLOSION DATA****Flammability:** *May be combustible if strongly heated. However, as with most organic compounds, fine dust dispersed in air in the presence of an ignition source is a potential dust explosion hazard.***Extinguishing Media:** *Water spray, dry chemical, alcohol or polymer foam, carbon dioxide. Fight fire from upwind, from a safe distance. Firefighters must wear protective equipment and clothing sufficient to prevent inhalation of dusts, mists or fumes, and contact with skin and eyes. Containers may explode in heat of fire, withdraw immediately in case of rising sound from vent, or discoloration of drum.***Flash Point (Method Used):** *Not available***Autoignition Temperature:** *248°C (powder, 90%); 447°C (14.8% solution)***Upper Flammable Limit (% by volume):** *Not available***Lower Flammable Limit (% by volume):** *27.5 mg/m³ (product with 90% SLS)***Hazardous Combustion Products:** SO_x , CO_x , H_2S , Na_2O **Sensitivity to Impact:** *Probably not sensitive***Sensitivity to Static discharge:** *As with most organic powders, mixtures of dust with air may be sensitive under certain conditions, when ignited by an electrostatic or other high-voltage spark, or other ignition source.***TOXICOLOGICAL PROPERTIES AND HEALTH DATA****Toxicological Data:****LD₅₀:** *(oral, rat) 1,288 mg/kg***LC₅₀:** *(male rat): >3900 mg/m³***Effects of Acute Exposure to Product:****Inhaled:** *Dust or mist is probably irritating. May cause coughing, dry throat, difficult breathing, nasal congestion, headache.***In contact with skin:** *Irritant. Concentrated solutions can cause severe irritation and even corrosion. Readily absorbed through skin, but not expected to be harmful unless very severe exposures occur.***In contact with eyes:** *Dust and mist cause irritation and burning. In animal testing, 2-3% solution causes mild irritation, 10%, moderate irritation, and solutions up to 40% cause severe irritation, based on animal information. There is no human information available.***Ingested:** *Irritates, probably not toxic, based on animal information. Ingestion of large amounts can cause stomach irritation, nausea, diarrhea.***Effects of Chronic Exposure to Product:***Prolonged skin contact may cause dermatitis (inflammation, drying, cracking). Allergic skin reactions reported only in patients already suffering from eczema.*

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Carcinogenicity: No human information. Not carcinogenic in animal testing.

Teratogenicity: No human information. No effects in one unconfirmed study with male mice.

Reproductive Effects: No information available.

Mutagenicity: No human information. Not mutagenic in short-term tests.

Synergistic Products: None known

ing, including shoes and leather goods, before reuse, or discard.

Inhalation: Remove casualty to fresh air. Give oxygen and get medical attention for any breathing difficulty.

Ingestion: DO NOT INDUCE VOMITING. If the casualty is alert and not convulsing, give 2 to 4 glasses of water to drink to dilute the material. If spontaneous vomiting occurs, have casualty lean forward to avoid breathing in of emesis. Rinse mouth and administer more water. Obtain medical attention.

PREVENTIVE MEASURES

Engineering Controls: Local exhaust ventilation required.

Respiratory Protection: Dust/mist mask. NIOSH approved air-purifying respirator or self-contained breathing apparatus required for high or unknown concentrations, as in fire or spill conditions.

Eye Protection: Chemical safety goggles, and/or face shield. Do not wear contact lenses when working with chemicals.

Skin Protection: Rubber gloves. Other chemical resistant protective clothing, sleeves, coveralls, boots, as required to prevent contact.

Other Personal Protective Equipment: An eyewash and safety shower should be nearby and ready for use.

Leak and Spill Procedure: Ventilate area. Evacuate area, and eliminate all sources of ignition. Cleanup personnel should be trained in the hazards of the material and its safe handling, and should wear protective equipment and clothing sufficient to prevent inhalation of dust or fumes, and contact with skin and eyes. Do not touch spilled material. Contain spill with inert absorbent, collect, and transfer carefully to containers for recovery or disposal. Flush area of spill thoroughly with running water.

Waste Disposal: Follow all federal, provincial and local regulations for disposal.

Handling Procedures and Equipment: IRRITANT, COMBUSTIBLE DUST. Workers using this chemical must be properly trained in its hazards and its safe use, and must wear appropriate protective equipment and clothing. Avoid generating dust. If there is dust, keep away from heat, sparks, and all sources of ignition; avoid the accumulation of static charge, use anti-sparking tools and ground and bond equipment and containers. Use the smallest amount possible for the purpose, in a designated area with adequate ventilation. Use good housekeeping to prevent accumulations of dust. Avoid contact with skin and eyes. Avoid inhalation. Wash thoroughly after handling.

Storage Requirements: Store in suitable, labelled containers in a cool, dry, well-ventilated area, out of direct sunlight and away from incompatible or combustible materials. Keep air out of container. Keep container tightly closed. Inspect frequently for signs of damage or leaking. Treat empty containers with caution; they may contain hazardous residues.

REFERENCES USED

CCINFO disc: Cheminfo

Budavari: The Merck Index, 12th ed., 1997

Sax, Lewis: Hawley's Condensed Chemical Dictionary, 11th ed., 1987

Sax: Dangerous Properties of Industrial Materials, 5th ed., 1979

Suppliers' Material Safety Data Sheets

ADDITIONAL INFORMATION

Date Issued: June 7, 1991

Revision: June 2009

MSDS: 7770-1, 7771-1

Proposed WHMIS Designation: D2B (irritation)

Prepared by: Caledon Laboratories Ltd. (905) 877-0101
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FIRST AID MEASURES

Specific Measures:

Eyes: Immediately flush eyes with gently running water for at least fifteen (15) minutes, holding eyelids open during flushing. Take care not to flush contaminated water into unaffected eye. Get medical attention immediately.

Skin: Remove contaminated clothing (including rings, watches, belts and shoes). Immediately flush exposed area with large amounts of warm running water for at least fifteen (15) minutes. Get medical attention. Decontaminate cloth-