

ROYAL CHEMICALS COMPANY	QC Department	Material Safety Data Sheet
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Material Safety Data Sheet

Linear Alkyl benzene Sulphonic Acid

section 1 - Chemical Product and Company Identification							
Product/Chemical Name: Linear alkyl benzene Sulphonic Acid (LABSA) Trade Name: Sulphodin Other Designations: Benzenesulphonic acid, C ₁₀₋₁₆ -alkyl derivatives							
section 2 - Composition / Information on Ingredients							
Ingredient Name	Pre-registration #		CAS Number		% Wt or % Vol		
C ₁₀₋₁₆ -alkylbenzene sulfonic acid	05-2115592308-38-0000		68584-22-5		97		
Benzene, C ₁₀₋₁₆ - alkyl derives			68648-87-3		1		
Sulfuric acid			7664-93-9		1		
Trace Impurities: Sulfur dioxide 7446-09-5, 0.1%							
	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
Ingredient	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
C ₁₀₋₁₆ Alkylbenzene Sulfonic acid	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Benzene, C ₁₀₋₁₆ - alkyl derives Sulfonic acid	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Sulfur dioxide	none estab.	none estab.	2ppm	none estab.	none estab.	none estab.	none estab.
Sulfuric acid	1mg/m ³	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
section 3 – Hazards Identification							
☆☆☆☆☆ Emergency Overview ☆☆☆☆☆							
Potential Health Effects							
Primary Entry Routes: Inhalation, ingestion, eye and skin contact Acute Effects Inhalation: Breathing of SO ₂ vapors may cause sickness, sneezing, or irritation to the nose, throat, and lungs. Eye: Irritation, reddening, and possible chemical burns. Skin: Contact with the skin will cause a gradual burning feeling resulting in irritation, reddening and possible chemical burns. Prolonged and repeated contact will cause deoiling of the skin resulting skin inflammation, rashes or dermatitis. Ingestion: swallowing material may cause burning feeling resulting in irritation, reddening and possible chemical burns to the mouth, throat, and mucous membrane. Material may cause sickness and upset stomach. Carcinogenicity: IARC, NTP, and OSHA do not list <i>Linear Alkyl benzene Sulfonic Acid</i> as a carcinogen. Medical Conditions Aggravated by long-term Exposure: None listed Chronic Effects: Unknown							
Section 4 – First Aid Measures							
Inhalation: Move away from vapors to fresh air source. Eye Contact: Wash eyes immediately with running water, including under the eyelids for 15 mins. Skin Contact: Wash area with running water 5 to 10 mins. Contaminated clothing should be washed before reuse Ingestion: Give 2 to 3 cups of dilute sodium carbonate or bicarbonate solution to drink, do not induce vomiting. <i>After first aid, get appropriate in-plant, paramedic, or community medical support.</i>							

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Note to Physicians : There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. due to the irritant and surfactant action of the material, if it is aspirated during swallowing or vomiting, there may be lung injury. Therefore, emesis should not be induced by mechanical or pharmacological means. If it is considered that evacuation of the stomach contents is necessary, this should be done by means least likely to result in aspiration.

Section 5 - Fire-Fighting Measures

Flash Point: > 300 °C
Flash Point Method: TOC
Burning Rate: Unknown
Autoignition Temperature: Unknown
LEL: Unknown
UEL: Unknown
Flammability Classification: Unknown
Extinguishing Media: Water, foam, CO₂, or dry chemical
Unusual Fire or Explosion Hazards: None
Hazardous Combustion Products: Oxides of carbon, sulfur containing hydrocarbons, hydrocarbons and soot
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Recover all usable material.
Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.
Cleanup: Soak up balance with sand or dirt. May be neutralized with soda ash, TSP, or bicarbonate of soda.
Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Spilled material is slippery on walkways and highways. Foams profusely when hit with a stream of water.
Storage Requirements: Store in iron, stainless steel, or acid resistant Fiberglass tanks.

Section 8 - Exposure Controls / Personal Protection

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.
Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.
Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

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*Linear Alkyl Benzene Sulfonic Acid***Section 9 - Physical and Chemical Properties**

Physical State: Liquid
Appearance and Odor: Clear to slightly hazy brown liquid; sharp sulfur dioxide odor
Odor Threshold: Unknown
Vapor Pressure: 39 mm Hg at 90 °F
Vapor Density (Air=1): NA
Formula Weight: Unknown
Density: 8.8 lbs/gal
Specific Gravity (H₂O=1, at 4 °C): 1.06
pH: < 2.0

Water Solubility: Soluble in all portions, may gel.
Other Solubilities: NA
Boiling Point: > 572 F (300 C)
Freezing/Melting Point: Unknown
Viscosity: Unknown
Refractive Index: NE
Surface Tension: NE
% Volatile: < 0.5
Evaporation Rate: Unknown

Section 10 - Stability and Reactivity

Stability Linear Alkyl Benzene Sulfonic Acid is stable at room temperature in closed containers under normal storage and handling conditions.
Polymerization: Hazardous polymerization cannot occur.
Chemical Incompatibilities: Alkalis
Conditions to Avoid: Product is a corrosive acid if mixed with water. Product generates heat with alkaline materials.

Section 11- Toxicological Information

Toxicity Data:

Eye Effects: Unknown
Acute Inhalation Effects:
Human, inhalation, TC_{Lo}: Unknown

Skin Effects: Non sensitizing
Acute Oral Effects:
Rat, oral, LD₅₀: 1407 mg/kg
Chronic Effects: Prolonged and repeated contact will cause decoiling of the skin resulting in inflammation, rashes or dermatitis.
Carcinogenicity: Neg
Mutagenicity: Neg
Teratogenicity: Neg

Section 12 - Ecological Information

Environmental Fate and Environmental Degradation: Material totally biodegrades under both aerobic and anaerobic conditions of secondary wastewater treatment systems. The rate of biodegradation is comparable to the rate of many naturally occurring materials such as glucose sugar, amino acids and plant fiber (cellulose).

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.
Container Cleaning and Disposal: Product is biodegradable. Haul to approved sanitary landfill or dump in compliance with federal, state or providential, and local regulations. Wash away residue with lots of water to plant or municipal wastewater treatment systems. If neutralized, may be disposed of as non-hazardous.

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Linear Alkyl Benzene Sulfonic Acid**Section 14 - Transport Information****DOT Transportation Data (49 CFR 172.101):****Shipping Name:****Linear Alkyl Benzene Sulfonic Acid**
(Domestic).Alkyl sulphonic acid, liquid
(International).**Hazard Class:** 8 (Corrosive)**ID No.:** UN 2586**Packing Group:** II**Label:** Corrosive**Special Provisions (172.102)****Packaging Authorizations**Consult these sections in your
current 49 CFR for more details.**Quantity Limitations**Consult these sections in your current 49 CFR
for more details.**Section 15 - Regulatory Information****EPA Regulations:**

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification: Not classified

CERCLA Hazardous Substance (40 CFR 302.4) listed specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec.

307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ), 1000 lb

SARA 311/312 Codes:

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1): Not Listed

OSHA Specifically Regulated Substance (29CFR 1910.1200)

State Regulations:**California:** California Health and Safety Code section 25249.6**Massachusetts:** MSL**New Jersey:** Labeling requirements**Pennsylvania:** Hazardous Substance ListOriginator
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