SAFETY DATA SHEET

LINEAR ALKYL BENZENE SULPHONIC ACID (LABSA)

SECTION 1: IDENTIFICATION

Trade Name	**LABSA**
Chemical Name	Linear Alkyl Benzene Sulphonic Acid
Major Recommended Uses	Surfactant most used worldwide in the production of detergent powders and liquids used in household cleaning and detergent formulations in other institutional and industrial applications.
Company Name	Cosmo Chemistry India Pvt. Ltd.
Address	Office No. 713, 7th Floor, Millennium Business Hub, Sarthana Jakatnaka, Varachha Main Road, Surat, Gujarat, India - 395006
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Email	info@cosmochemistryindia.com

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Hazard Class	**Category**
Acute Toxicity (Oral)	Category 4
Skin Corrosion/Irritation	Category 1C
Eye Damage/Irritation	Category 1

Environmental Hazards:

Hazard Class	**Category**
Hazardous to the Aquatic Environment, Acute Hazard	Category 1
Hazardous to the Aquatic Environment, Long-Term Hazard	Category 3

GHS Label Elements - Pictograms: Corrosive, Irritant (see GHS pictograms)

Word of Warning: DANGER

Hazard Statements:

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

H401 - Hazardous to aquatic life.

H412 - Harmful to aquatic life with long term effect.

Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 - IF SWALLOWED: Call a poison centre or doctor/physician if you feel unwell.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison centre or doctor/physician.

P330 - Rinse mouth.

P501 - Dispose of contents/container in accordance with local regulations.

Other Hazards Which Do Not Result in a Classification: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture. Common Chemical Name: Linear Alkyl Benzene Sulphonic Acid

Chemical Name	CAS Number	Concentration
Linear Alkyl Benzene Sulphonic Acid (Acid Slurry)	68584-22-5	≥96%
Free Sulfuric Acid	7664-93-9	≤2.0%
Water/Inert	-	≤2.0%

SECTION 4: FIRST-AID MEASURES

Skin: May cause burns. Remove contaminated clothing and wash with plenty of water. Call a physician immediately.

Eye: Flush eyes immediately with running water for a prolonged period. Seek medical assistance immediately.

Inhalation/Ingestion: May cause irritation of the mouth. If accidentally ingested, administer water. Call a physician immediately.

Most Important Symptoms and Effects, Acute and Delayed:

Symptoms: May cause burns to mouth, throat and stomach. Severe skin burns and eye damage.

Effects: Stomach pains; pain or irritation, redness, blistering of the skin; pain, tearing and redness of eyes.

Notes to Physician:

Treat symptomatically. Dilute the acid by administering large amounts of water or milk. Follow with a soft neutralizing agent, such as milk of magnesia, lime water, aluminum hydroxide gel or soap solution. Do not use sodium carbonate or bicarbonate, which react with the acid producing carbon dioxide. In case of more pronounced and severe burns, apply symptomatic treatment.

SECTION 5: FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, foam, CO2.

Unsuitable Extinguishing Media: None in particular.

Extinguishing Media Not Recommended: Water jets directed directly over the burning liquid.

Specific Hazards of the Substance or Mixture: During a fire, toxic gases such as SO2 and H2S may be released. If heated, a pressure increase will occur and the container may burst. Combustion releases toxic and corrosive gases such as carbon monoxide, carbon dioxide and oxides of sulfur.

Protective Measures for the Firefighting Team: Full protective equipment for firefighters. Position with backs to the wind. Use respiratory protective equipment while firefighting.

Fire-Fighting Measures: Turn off all sources of ignition. Apply the extinguishing agent appropriately.

SECTION 6: SPILL AND LEAK CONTROL MEASURES

Non-Emergency Personnel: Use personal protective equipment. Avoid inhalation, contact with eyes and skin.

Emergency Responders: Use protective clothing resistant to chemicals, PVC gloves and boots. Safety glasses against splashing. If vapors are suspected, wear an appropriate mask or self-contained breathing apparatus. It can be dangerous to the person applying artificial respiration. Wash contaminated clothing thoroughly with water before removing it, wearing gloves throughout.

Environmental Precautions:

On Land: Prevent the flow of product to rivers, streams, water courses, low-lying areas, underground sewers, wells, soil and vegetation. Soak up with absorbent material (sand, acid binder agent, universal binder, sawdust). Collect all waste in suitable labelled containers and dispose of in accordance with local legislation. Notify authorities and alert the neighborhood if necessary.

In Water: Take contaminated water to the Effluent Treatment Plant. Treat it properly and ensure it meets Pollution Control norms.

Methods and Materials for Containment and Cleaning Up: Absorb the material with absorbent material (sand, acid binder, universal binder, sawdust). Place in an appropriate container for recycling or disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Handle in a ventilated area or with a general ventilation/local exhaust system. Avoid formation of vapors/mists. Avoid contact with incompatible materials. Use appropriate protective equipment. Handle the product in a cool and well-ventilated place. Avoid packaging falls and loss of product identification during loading/unloading operations. Heavier packages must be transported by forklift. Do not mix with incompatible products. Label the packaging. Wash hands and face after handling and before eating and drinking.

Remove contaminated clothing and protective equipment before entering eating areas. Do not eat, drink or smoke in areas where this material is handled, stored and processed.

Conditions for Safe Storage, Including Any Incompatibilities: Store at temperatures below 40°C, in a dry, cool and well-ventilated place. Keep away from alkaline oxidizing agents, heat and sources of ignition. Use stainless steel for construction of tanks and pipes, or carbon steel tanks coated with epoxy or polyester resins. Avoid exposure of drums to sun, rain and high temperatures. If stored in carbon steel tanks, corrosion can extract a small amount of iron, which affects the product. Use plastic containers, 316L stainless steel tanks, or carbon steel tanks coated with epoxy or polyester resins. Do not store in unlabeled containers.

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Control Parameters:

Occupational Exposure Limits: Not established.

Biological Indicators: Not established.

Other Limits and Values: Not established.

Appropriate Engineering Controls: If stored in a confined space, provide ventilation/exhaust system.

Individual Protection Measures:

Eye/Face Protection: Use goggles/face shield.

Skin and Body Protection: Full clothing (pants and long sleeves), PVC gloves and boots (acid-resistant).

Thermal Hazards: Not applicable.

Special Precautions: Chemicals should only be handled by trained people. Install shower and eyewash on the shop floor. Strictly follow operating procedures and safety practices when working with chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Parameter	Value
Appearance	Honey brown viscous liquid
Odour and Odour Threshold	Characteristic
pH	<2
Melting Point/Freezing Point	< -7°C
Initial Boiling Point and Boiling Range	190°C
Flash Point	150°C
Evaporation Rate	Not available
Flammability (Solid, Gas)	Not applicable
Upper/Lower Flammability or Explosive Limits	Not applicable

Vapour Pressure	<1 mm Hg @ 20°C
Vapour Density	Not available
Relative Density	1.040 to 1.046 g/cm3 [25°C]
Solubility (Water)	Soluble in water, may gel
Partition Coefficient (n-octanol/water)	3.32
Auto-Ignition Temperature	380°C
Decomposition Temperature	Not available
Viscosity	400-1000 Cps @ 30°C

SECTION 10: REACTIVITY

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical Stability: Stable under normal conditions of temperature and pressure.

Possibility of Hazardous Reactions: Reactive with alkaline bases and oxidizing agents. Reaction with sulfides, phosphides, cyanide, carbides and silicides releases poisonous gases.

Conditions to Avoid: Contact with metals, oxides, carbides and carbonates.

Incompatible Materials: Metals, oxides, carbides, carbonates and hydroxides.

Hazardous Decomposition Products: On burning, gases and combustion vapors are produced, such as carbon monoxide and carbon dioxide. Smoke may also contain sulfur oxides and hydrogen sulphide, which may be toxic.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: LD50 (Oral, Rats): 775 mg/kg

Serious Eye Damage/Eye Irritation: Irritating.

Respiratory or Skin Sensitization: Respiratory: no significant effects or critical hazards. Skin: corrosive to the skin.

Carcinogenicity: Not available.

Toxicity to Reproduction: Not available.

STOT - Single Exposure: Not available.

STOT - Repeated Exposure: Not available.

Aspiration Hazard: Not available.

Main Symptoms:

Inhalation: Not available.

Ingestion: Stomach pain.

Eye Contact: Pain, tearing, redness.

Skin Contact: Pain or irritation, redness, blistering of the skin may occur.

Specific Effects:

Inhalation: Gases and vapors very irritating to the airways.

Ingestion: Harmful if swallowed. Can cause burns to the mouth, throat and stomach.

Eye Contact: Causes severe eye injury.

Skin Contact: Causes severe burns.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: LC50 (Daphnia magna, 48h): 9.3-11.6 mg/L

Persistence and Degradability: Aerobic biodegradation is the main mechanism for removal.

Bioaccumulative Potential: The extract did not bioconcentrate in aquatic organisms.

Mobility in Soil: The extract is soluble in water, showing high mobility in the soil.

Other Adverse Effects: No significant effects or critical hazards.

SECTION 13: CONSIDERATIONS ON TREATMENT AND DISPOSAL

Product: Significant amounts of residual waste product should not be removed by channeling wastewater, but processed in an Effluent Treatment Plant. Remove any excess or non-recyclable product through an authorized waste disposal company.

Product Waste: Keep the product remains in their original containers and properly sealed.

PPE Required for Treatment and Disposal of Waste: Use safety chemistry goggles, impervious gloves, rubber boots and protective clothing to prevent skin contact. Use respiratory protection with a filter for protection against organic vapors and acid gases.

SECTION 14: TRANSPORT INFORMATION

Land (UN Recommendations on the Transport of Dangerous Goods, Model Regulations, 16th Edition, 2009)

Parameter	Value
UN Number	2586
UN Proper Shipping Name	Alkyl sulphonic acid, liquid
Class/Subclass of Main Risk	8
Class/Subclass of Subsidiary Risk	Not applicable
Risk Number	80
Packing Group	III
Danger to the Environment	No known significant effects or critical hazards

Sea (IMDG Code, Incorporating Amendment 34-08; 2008 Edition)

Parameter	Value
UN Number	2586
UN Proper Shipping Name	Alkyl sulphonic acid, liquid
Class/Subclass of Main Risk	8
Class/Subclass of Subsidiary Risk	Not applicable
Risk Number	80
Packing Group	III
Danger to the Environment	No known significant effects or critical hazards

Air (IATA Dangerous Goods Regulation, 51st Edition, 2010)

Parameter	Value
UN Number	2586
UN Proper Shipping Name	Alkyl sulphonic acid, liquid
Class/Subclass of Main Risk	8
Class/Subclass of Subsidiary Risk	Not applicable
Risk Number	80
Packing Group	III
Danger to the Environment	No known significant effects or critical hazards

SECTION 15: REGULATORY INFORMATION

Classified in accordance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.

SECTION 16: OTHER INFORMATION

Important Information: If necessary, or in case of doubt, contact Cosmo Chemistry India Pvt. Ltd. at the contact details on page 1.

References: Other MSDS available through the internet.

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