I. SUBSTANCE:

TRADE NAME : LABSA
COMMODITY CODE : HSN 2904-10-90 / 3402-11-90
APPLICATION : Intermediary for the production of detergent.

II. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NATURE : Substance
CHEMICAL NAME : Linear Alkyl Benzene Sulphonic Acid
CHEMICAL FORMULA : C₆H₄(SO₃H)(CS₂)₁₀CS₃
CAS NUMBER : 27176-87-0
EINECS NUMBER : 248-289-4
EC NUMBER : Not Classified.

III. HAZARDOUS IMPURITIES

<table>
<thead>
<tr>
<th>NAME</th>
<th>CONCENTR.</th>
<th>CAS N.</th>
<th>EC N.</th>
<th>SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric Acid</td>
<td>4-7% max</td>
<td>7664-93-9</td>
<td>016-020-00-8</td>
<td>C-Corrosive</td>
</tr>
</tbody>
</table>

IV. HAZARDS IDENTIFICATION

ADVERSE HUMAN HEALTH EFFECTS : The product is a corrosive substance. Contact with the eye may cause ocular lesions and contact with wet skin may cause burns. It is seriously irritating to the mucous if swallowed. The product is harmful if ingested.
ENVIRONMENTAL EFFECTS: The product is not classified as dangerous to the environment. The user is advised to use anyway good work practice an to avoid contamination of environment.

OTHER EFFECTS: The product is a strong acid which reacts exothermically with bases. Dilution with water produces heat.

V. FIRST AID MEASURES

INGESTION: The product may cause severe irritation of the mouth and oesophagus. If accidentally ingested, administer water. Do not induce vomiting. Call a physician immediately.

INHALATION: The product is not volatile. If under particular conditions such as in the case of fire, fumes or Aerosols are inhaled, remove the patient to a well ventilated location and call a physician.

EYE CONTACT: Flush eyes immediately with running water for a long time. Seek medical assistance immediately.

SKIN CONTACT: The product may cause burns. Remove the contaminated clothing and wash with plenty of water and call a physician immediately.

ANNOTATIONS TO A PHYSICIAN: The product is a high foaming anionic surfactant. If gastric lavage is necessary, then use silicon antifoam (dimethicone).

VI. FIRE FIGHTING MEASURES

GENERAL INFORMATION: The product poses little risk of ignition. If it happens to be involved in a fire, keep the tank cooled by means of a water spray in order to avoid decomposition of the product.

SUITABLE EXTINGUISHING MEDIA: Water spray, foam, carbon dioxide.

NOT SUITABLE EXTINGUISHING MEDIA: None in particular.
SPECIFIC HAZARDS: Combustion produces carbon dioxide, carbon monoxide and oxides of Sulphur. When heated to decomposition, toxic fumes of SO2 and SO3 are emitted.

SPECIAL EQUIPMENTS: For large fires, wear self contained breathing apparatus.

VII. ACCIDENTAL SPILL MEASURES

PERSONAL PRECAUTIONS: Avoid direct contact with the product. Wear rubber gloves and rubber boots, face shield and keep close by a gas mask provided with a filter for acid vapours.

ENVIRONMENTAL PRECAUTIONS: Surround the spill with earth or sand. Collect the spilled material in suitable containers; if necessary absorb the spill into inert materials. Dispose of material according to the requirements of local law. In case of leaking into the sewer, inform the local authorities.

METHODS FOR CLEANING UP: Neutralise the residue of the product with NaOH or with caustic lime. Wash the contaminated area with plenty of water. If excessive foam is produced, use silicon based antifoam to bring it down.

VIII. HANDLING AND STORAGE

HANDLING: Avoid contact with the product. While handling the product, wear a protective apron, rubber or PVC gloves and a face shield. Handle the product in well ventilated areas. Neutralize with base under controlled conditions. Compatible materials are Stainless Steel, Mild Steel, and Plastic Materials. Incompatible with galvanised steel, aluminium and copper alloys.

IX. EXPOSURE CONTROLS / PERSONAL PROTECTION

PRECAUTIONARY MEASURES: Installation of an eyewash fountain is recommended. Do not eat, drink onto the workplace. When handling the product use approved protective clothing, rubber or PVC gloves, and a face shield.

PERSONAL PROTECTIVE EQUIPMENT: Wear safety goggles or a face shield and approved protective clothing.
THRESHOLD LIMIT VALUE : Not established.

REQUIREMENTS FOR PERIODIC HEALTH CHECK UP: Specific measures are not foreseen.

X. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AT 20 DEGREE C : Brown viscous liquid.

ODOUR : Of Sulphur.

NOMINAL ACTIVE MATTER CONC. : ~ 90% m/m.

AVERAGE MOLECULAR MASS : ~ 326

SOLUBILITY AT 20 DEGREE C
- Water : Soluble
- Ethanol : Soluble
- Acetone : Not Compatible
- Aliphatic Hydrocarbons : Insoluble

MASS DENSITY AT 20 DEGREE C : ~ 1.070 g/cm³

VISCOSITY AT 20 DEGREE C : ~ 1500 – 2000 MPa.s.

MELTING RANGE : ~ -10 DEGREE C.

BOILING POINT : ~ 315 DEGREE C.

VAPOUR PRESSURE AT 20 C : BELOW 0.15 (0.001 mm Hg)

VAPOUR DENSITY (Air = 1) : Not Applicable to this Product.

FLASH POINT (PMcc) : 210 DEGREE C.

AUTOIGNITION TEMPERATURE : Not Applicable to this product.

DECOMPOSITION TEMPERATURE: > 100 DEGREE C.

Ph : ~ 2

EXPLOSION PROPERTIES : Not pertinent to this product.

OXIDIZING PROPERTIES : Not pertinent to this product.
XI. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: In case of overheating, sulphur oxides can be emitted.

CONDITIONS TO AVOID: Do not heat above 90 degree centigrade.

MATERIALS TO AVOID: Neutralization with bases under uncontrolled conditions.

INTENDED USE AND TRANSFORMATION: The product may be neutralized under controlled conditions with the appropriate base to produce the corresponding salt.

XII. TOXICOLOGY INFORMATION

POSSIBLE ROUTES OF PENETRATION: Ingestion and contact.


EYE CONTACT: Severe eye irritant. It may cause irreversible damage to the eyes.

SKIN CONTACT: Contact may cause ulcerations.

SENSITIZATION: Not Sensitizing.

INHALATION: Inhalation is possible only as an aerosol. Strong irritant to respiratory passages.

XIII. ECOLOGICAL INFORMATION

ENVIRONMENTAL DISTRIBUTION: Water is likely to be the main transport medium for the chemical, to estimate its possible environmental distribution.

PRIMARY BIODEGRADABILITY: > 90% (OECD screening test (sodium salt)). The surfactant fulfils the requisite minimum requirements of primary biodegradability.

ABIOTIC DEGRADABILITY: Not available.

ECOTOXICITY: 2.49 mg O2/mg.

CHEMICAL OXYGEN DEMAND (COD): Not available.
LOG P o/w : Not applicable, surface active substance.

BCF : Insufficient available information.

**XIV. DISPOSAL CONSIDERATIONS**

Dispose of product in authorised places / methods in observance with the current laws. It may be treated in a biological waste treatment plant.

**XV. TRANSPORT INFORMATION**

UN CLASSIFICATION NUMBER : 2586

NAME OF THE DELIVERING PRODUCT : Linear Alkyl Benzene Sulphonic Acid/LABSA90%

PACKING INSTRUCTION : P001

PACKAGING GROUP : III

CLASS : 8

MARINE POLLUTANT : NO

EMS NUMBER : F-A, S-B

**XVI. REGULATORY INFORMATION**

CLASSIFICATION AND LABELLING

**PROVISIONAL**

SYMBOLS OF HAZARD:

RISK PHRASES

R22 - Harmful if Swallowed
R34 - Causes Burns

SAFETY ADVICES

S26 - In case of contact with the eyes, rinse immediately with plenty of water and seek medical help.
S28 - After contact with skin, wash immediately with plenty of water
S36/37/39 - Wear suitable protective clothing, gloves and eye face protection.
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