



## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Name :** ALKYL SULFONIC ACIDS, LIQUID

**Other Names :** (C10-16) ALKYL BENZENESULFONIC ACID BENZENESULFONIC ACID, C10-16 ALKYL DERIVATIVES

**Uses :** Feedstock for detergent derivative manufacture.

Organisation	Location	Telephone	Ask For
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	02- 97333000 131126	Technical Officer
Poisons Information Centre	Westmead NSW	1800- 251525	

### 2. HAZARD IDENTIFICATION

**Hazardous according to criteria of NOHSC**

CORROSIVE

#### Risk Phrases

R35 Causes severe burns.  
R22 Harmful if swallowed.

#### Safety Phrases

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

**ERMA New Zealand Approval Code :** No Data

**HSNO Hazard Classification :** No Data

This Material Safety Data Sheet may not provide exhaustive guidance for all HSNO Controls assigned to this substance. The ERMA website [www.ermanz.govt.nz](http://www.ermanz.govt.nz) should be consulted for a full list of triggered controls and cited regulations

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Entity</b>	<b>CAS No.</b>	<b>Proportions (%)</b>
LINEAR ALKYL BENZENE SULPHONIC ACID	[68584-22-5]	100

### **4. FIRST AID MEASURES**

#### **Description of necessary measures according to routes of exposure**

##### **Swallowed**

If swallowed, do NOT induce vomiting. Transport to nearest medical facility for treatment. If vomiting occurs naturally, keep head below hips to prevent aspiration.

##### **Eye**

Immediately flush eyes with large amounts of water holding eyelids open. Transport to the nearest medical facility for treatment.

##### **Skin**

Remove contaminated clothing. Immediately flush skin with plenty of water. Transport to the nearest medical facility for treatment.

##### **Inhaled**

Remove victim from exposure to fresh air. Seek immediate medical attention.

##### **Advice to Doctor**

Treat symptomatically based on individual reactions of patient and judgement of doctor.

##### **Additional Information**

##### **Aggravated medical conditions caused by exposure**

Product causes severe burns.

### **5. FIRE FIGHTING MEASURES**

#### **Extinguishing Media**

In case of fire, appropriate extinguishing media include alcohol-resistant foam, water spray or fog. For small fires, use dry chemical powder, carbon dioxide, sand or earth. Water may be used to cool down fire exposed containers. Do NOT use water jet.

### **Hazards from Combustion Products**

Carbon monoxide may be evolved if incomplete combustion occurs. Hazardous combustion products may include carbon dioxide and oxides of sulphur. This product reacts with bases. Stable up to 40°C in temperature.

### **Special protective precautions and equipment for fire fighters**

Fire fighters should wear a self contained breathing apparatus and full protective clothing along with protective equipment.

### **Flammability Conditions**

This product is a Corrosive and Combustible Liquid.

### **Additional Information**

Hazchem Code : 2X

## **6. ACCIDENTAL RELEASE MEASURES**

### **Emergency procedures**

Personnel involved in the clean up should wear full protective clothing. Evacuate all unnecessary personnel. Eliminate all sources of ignition. Stop leak if safe to do so. Increase ventilation. Avoid contact with the product as it is corrosive. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority. Use spark-proof tools and equipment.

### **Methods and materials for containment and clean up**

Small Spill: Soak up spilled product using absorbent material such as sand or earth. Shovel up contaminated material and transfer to a sealable, labelled container for recovery or safe disposal. Once pick up is complete, flush spill area with plenty of water and dispose of contaminated water safely. Large Spill: Prevent spill from spreading or contaminating drains by creating a barrier with sand or earth. Transfer spilled product by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water, retain as contaminated waste. Allow residues to evaporate or soak up with sand or soil and dispose of safely.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment.

### **Conditions for safe storage, including any incompatibles**

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials including bases, oxidizing agents and sources of ignition. Do not use compressed air for filling, discharging or handling. Bulk storage tanks should be diked (bunded). Storage temperature must not exceed 40°C. Protect from direct sunlight. This product has a UN classification of 2586 and a Dangerous Goods Class 8 (corrosive) according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

### **Container Type**

Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations 2001. Store in original packaging as approved by manufacturer. Suitable: Stainless steel, epoxy resins and polyester. Unsuitable: Mild steel.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **National Exposure Standards**

No exposure standard has been established for this product by the Australian National Occupational Health and Safety Commission (NOHSC). However, the exposure standard for dust not otherwise specified is 10mg/m<sup>3</sup> (for inspirable dust) and 3mg/m<sup>3</sup> (for respirable dust).

### **Biological Limit Values**

No biological limit allocated for this product.

### **Engineering Controls**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

### **Personal Protection**

RESPIRATOR: Wear an NIOSH approved respirator conforming with EN141. EYES: Chemical splash goggles approved to EN166. HANDS: Where hand contact with the product may occur, wear gloves approved to relevant standards EN374 such as nitrile rubber. CLOTHING: Wear chemical resistant apron and gauntlets and knee-length boots.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	amber pourable gel
<b>Formula</b>	Unspecified
<b>Odour</b>	sulphur dioxide odour
<b>Vapour Pressure</b>	0.01Pa (20°C) mm Hg (1

<b>Vapour Density</b>	atmosphere)
<b>Boiling Point</b>	Not Applicable
<b>Melting Point</b>	N/A deg C
<b>Solubility in water</b>	-12 to -10°C deg C
<b>Specific Gravity</b>	400g/L (22°C) g/l (25 deg C)
<b>Flash Point</b>	N/A (Water = 1)
<b>pH</b>	Closed Cup >180°C
<b>Flammability Limits (as percentage volume in air)</b>	Not Applicable
<b>Lower Explosion Limit</b>	Not Applicable
<b>Upper Explosion Limit</b>	Not Applicable
<b>Ignition Temperature</b>	Not Applicable
<b>Specific Heat Value</b>	Not Applicable
<b>Particle Size</b>	Not Applicable
<b>Volatile Organic Compounds (VOC) content</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Viscosity</b>	1600mm <sup>2</sup> /s (20°C)
<b>Percent Volatile</b>	No Data
<b>Octanol/Water partition coefficient</b>	1.96
<b>Saturated Vapour Concentration</b>	Not Applicable
<b>Additional Characteristics</b>	Not Applicable
<b>Flame Propagation/Burning Rate of Solid Materials</b>	Not Applicable
<b>Properties of materials that may initiate or contribute to fire intensity</b>	Not Applicable
<b>Potential for Dust Explosion</b>	Product is a liquid.
<b>Reactions that Release Flammable Gases</b>	Not Applicable
<b>Fast or Intensely Burning Characteristics</b>	Not Applicable
<b>Non-flammables that could contribute unusual hazards to a fire</b>	Not Applicable
<b>Release of invisible flammable vapours and gases</b>	No Data
<b>Decomposition Temperature</b>	No Data

#### **Additional Information**

Henry's Coefficient: 0.06 Pa.m<sup>3</sup> / mole (Mackay Model). Koc: 20 State of aggregation: Viscous liquid. Thermal conductivity: 130W/m °C. Hygroscopicity: Dilution with water is an exothermic reaction.

## **10. STABILITY AND REACTIVITY**

**Chemical Stability :** Product is stable under directed conditions of use, storage and temperature.

**Conditions to avoid :** Avoid excessive heat, direct sunlight, static discharges and temperatures over 40°C.

**Incompatible Materials :** Incompatible with oxidizing agents, bases and sources of ignition.

**Hazardous Decomposition Products :** Product may emit carbon monoxide, carbon dioxide and oxides of sulphur.

**Hazardous Reactions :** Dilution with water is an exothermic reaction.

## 11. TOXICOLOGICAL INFORMATION

### Toxicity Data

Oral LD50 Rat: >200 - 2000mg/Kg. Dermal LD50 Rat: >400 - 2000mg/Kg. Repeated Dose Toxicity: Low systemic toxicity on repeated exposure. Mutagenicity: Not expected to be mutagenic. Carcinogenicity: Not expected to be carcinogenic. Reproductive Toxicity: Not expected to impair fertility. Developmental Toxicity: Not expected to be a developmental toxicant.

### Health Effects - Acute

#### Swallowed

Harmful if swallowed.

#### Eye

Eye irritation signs and symptoms may include a burning sensation, redness, swelling and blurred vision.

#### Skin

Skin irritation signs and symptoms may include a burning sensation, redness, swelling and blisters. Defatting dermatitis signs and symptoms may include a burning sensation and a dried/cracked appearance.

#### Inhaled

Inhalation of vapours or mists from the hot product may cause irritation to the respiratory system.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity :** No Data

**Persistence and degradability :** Readily biodegradable.

**Mobility :** Dissolves in water.

### Additional information

**Environmental fate (exposure) :** Avoid contaminating waterways, drains and sewers.

**Bioaccumulative potential :** Does not bioaccumulate significantly.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal

Dispose of in accordance with all local, state and federal regulations.

#### Special Precautions for land fill or incineration

This should be done in accordance with the Hazardous Substances (Disposal) Regulations 2001. Drain container thoroughly. After draining, vent in safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned containers. Send to drum recoverer or metal reclaimer.

### 14. TRANSPORT INFORMATION

<b>UN No.</b>	2586
<b>Shipping Name</b>	ALKYLSULFONIC ACIDS, LIQUID
<b>Dangerous Goods Class</b>	8
<b>Subsidiary Risk</b>	None Allocated
<b>Pack Group</b>	III
<b>Precaution for User</b>	CORROSIVE
<b>Hazchem Code</b>	2X



### 15. REGULATORY INFORMATION

<b>Poisons Schedule</b>	N/A
<b>EPG</b>	36
<b>AICS Name</b>	BENZENESULFONIC ACID, C10-16-ALKYL DERIVATIVES
<b>NZ Toxic Substance</b>	N
<b>Additional information</b>	No Data

### 16. OTHER INFORMATION

**Revision Date :** Feb 2006

#### Additional information

#### Legend to abbreviations and acronyms:

- < less than
- > greater than

AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (Registry Number)
CO <sub>2</sub>	Carbon Dioxide
COD	Chemical Oxygen Demand
ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substance and New Organism
IDLH	Immediately Dangerous to Life and Health
LC50	LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50	LD stands for "Lethal Dose". LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals
Misc	miscible
N/A	Not Applicable
NIOSH	National Institute for Occupational Safety and Health
NOHSC	National Occupational Health and Safety Commission
OECD	Organization for Economic Co-operation and Development
PEL	Permissible Exposure Limit
RCP	Reciprocal Calculation Procedure
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations (number)
cm <sup>2</sup>	square centimetres
deg C ( 'C )	degrees Celsius
g	gram
g/cm <sup>3</sup>	grams per cubic centimetre
g/l	grams per litre
immiscible	liquids are insoluble in each other
kg	kilogram
kg/m <sup>3</sup>	kilograms per cubic metre
ltr	Litre
m <sup>3</sup>	cubic metre
mPa.s	milli Pascal per second
mbar	millibar
mg	milligram
mg/24H	milligrams per 24 hours
mg/kg	milligrams per kilogram
mg/m <sup>3</sup>	milligrams per cubic metre
miscible	liquids form one homogeneous liquid phase regardless of the amount of either component present
mm	millimetre
ppb	parts per billion
ppm	parts per million
ppm/2h	parts per million per 2 hours
ppm/6h	parts per million per 6 hours
tne	tonne



ug/24H      micrograms per 24 hours  
wt            weight

**Literature references:**

No Data

**Sources for data:**

No Data



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