

1. IDENTIFICATION

Product Name	Linear Alkylbenzenesulphonic Acid			
Other Names	(C10-16) Alkylbenzenesulfonic acid			
Uses	Detergent, emulsifier, anionic surfactant.			
Chemical Family	No Data Available			
Chemical Formula	Unspecified			
Chemical Name	Linear Alkylbenzenesulphonic Acid			
Product Description	No Data Available			
Contact Information	Organisation	Location	Telephone	Ask For
	Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia 11 Mayo Road Wiri Auckland 2104 New Zealand	+61-2-97333000 +64-9-2506222	MSDS Officer
	Poisons Information Centre	Westmead NSW	1800-251525 131126	
	Chemcall	Australia New Zealand	1800-127406 0800-243622 +64-3-3530199	
	National Poisons Centre	New Zealand	0800-764766	

2. HAZARD IDENTIFICATION

ADG Code	Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).		
ASCC Hazard Classification	Hazardous according to the criteria of ASCC [NOHSC:1008(2004)]		
Categories	C	Corrosive	
	N	Dangerous For The Environment	
Risk Phrases	R22	Harmful if swallowed.	
	R35	Causes severe burns.	
	R41	Risk of serious eye damage.	
	R51	Toxic to aquatic organisms.	
	R24	Toxic in contact with skin.	
Safety Phrases	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
	S28	After contact with skin, wash immediately with plenty of soap and water.	
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.	
	S61	Avoid release to the environment. Refer to special instructions/Material Safety Data Sheets.	
	S20/21	When using do not eat, drink or smoke.	
	S24/25	Avoid contact with skin and eyes.	
HSNO Hazard Classification	6.1D; 6.3A; 8.3A; 9.1A; 9.2D; 9.3C; 6.1E; 6.4A; 8.1A; 9.1D		
Poisons Schedule (Aust)	No Data Available		



This Material Safety Data Sheet may not provide exhaustive guidance for all HSNO Controls assigned to this substance. The [EPA \(New Zealand\) web site](#) should be consulted for a full list of triggered controls and cited regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Linear Alkyl Benzene Sulphonic Acid	No Data Available	68584-22-5	>96.00 %
Alkyl benzene	No Data Available	68648-87-3	<1.50 %
Sulfuric Acid	No Data Available	7664-93-9	<1.50 %
Water	No Data Available	7732-18-5	<1.00 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	If vomiting occurs, rinse mouth and keep head lower than hips to help prevent aspiration. Get medical attention, if needed.
Eye	Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.
Skin	Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed.
Inhaled	Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.
Advice to Doctor	Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, remove containers from the path of fire.
Flammability Conditions	Product is a combustible liquid.
Extinguishing Media	Water, water fog, carbon dioxide, foam, alcohol foam or dry chemical, sand.
Fire and Explosion Hazard	Product is a combustible liquid. May be combustible in presence of fire and high temperature. May react with oxidizing agents.
Hazardous Products of Combustion	Flammable Liquid may release vapors that form flammable mixtures when temperatures are at or above the flash point. Toxic gases will form upon combustion. Oxidization of carbon - carbon dioxide, carbon monoxide, Sodium oxide, sulfur oxides. Emit toxic gases when heated to decomposition.
Special Fire Fighting Instructions	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	>=140 °C
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	2X

6. ACCIDENTAL RELEASE MEASURES



General Response Procedure	Avoid accidents, clean up immediately. Eliminate all sources of ignition. Increase ventilation. Isolate the danger area. Use clean, non-sparking tools and equipment. Eliminate all sources of ignition. Vapours can accumulate in low areas.
Clean Up Procedures	Small spills : Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Large spills : Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry.
Containment	Prevent further leakage or spillage if safe to do so
Decontamination	Soak up spilled product using absorbent non-combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated, collect the material and transfer to a suitable, labelled chemical waste container and dispose of promptly as hazardous waste.
Environmental Precautionary Measures	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

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. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Handle with care. Open only under well ventilated conditions. Keep away from sources of heat and ignition. Do not smoke. Loosen closure cautiously before opening. When using this substance, avoid breathing, ingestion and use respiratory protection when in dust or mist form. Wear chemical goggles resistant gloves and protective clothing to prevent contact. Wash thoroughly after handling. Operators must receive special training, compliance with operating rules strictly. Avoid contact with oxidizing agents. Use anti-explosion ventilation system and equipment. Hand carefully for preventing damage to packaging and containers. Equip with fire and leakage equipment. Empty containers may have harmful residues.
Storage	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 as listed in section 10. Avoid heat, sunlight, ignition sources. Keep separated from incompatible substances. Keep away from incompatibles such as oxidizing agents. Equipped with container for leakage. 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	Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	The following exposure standard has been established by The Australian Safety and Compensation Council (ASCC); Sulfuric Acid 7664-93-9 TWA = 1 mg/m ³ STEL = 3 mg/m ³ NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. Peak limitation is a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Use explosion-proof ventilation equipment. Adequate ventilation should be provided so that exposure limits are not exceeded. Provide mechanical ventilation of confined spaces.
Personal Protection Equipment	RESPIRATOR: If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate respiratory protection must be provided. Respiratory protection if there is a risk of exposure to high vapour concentration (AS1715/1716). EYES: Chemical goggles or face shield (AS1715/1716). HANDS: Impervious gloves, chemical resistant gloves (AS2161). CLOTHING: Wear appropriate chemical resistant clothing (AS3765/2210).



Work Hygienic Practices

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid.
Odour	No Data Available
Colour	Brown
pH	approx 1 5% aq. Soln
Vapour Pressure	0.513 torr (@ No Data Available)
Relative Vapour Density	Estimated heavier than air
Boiling/Melting Point	300 °C
Solubility	7.098 mg/L
Freezing Point	10 °C
Specific Gravity	1.05 - 1.06
Flash Point	>=140 °C
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	322 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	2
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	1250 cps (@ 25 °C)
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	Product is a liquid.
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	This material is stable under recommended storage and handling conditions.
Conditions to Avoid	Avoid heat, flames, sparks and other sources of ignition
Materials to Avoid	Strong alkalies and oxidizing agents.
Hazardous Decomposition Products	Toxic gases will form upon combustion. Flammable Liquid may release vapors that form flammable mixtures when temperatures are at or above the flash point. Toxic gases will form upon combustion. Oxidization of carbon - carbon dioxide, carbon monoxide, Sodium oxide, sulfur oxides. Emit toxic gases when heated to decomposition.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	Information on the likely routes of exposure Respiratory system : burn Oral : burn Eye : burn Skin : burn Delayed and immediate effects and chronic effects form short or long term exposure Acute toxicity: Oral LD50 Rat: 1350 mg/kg (OECD TG 401) Oral LD50 Rat : 1260 mg/Kg (Supplier) Skin LD50 Rat: 530 ~ 1060 mg /Kg Skin corrosion/irritation : Corrosion, Rabbit, OECD, TG 404 Serious eye damage/ eye irritation : Corrosion, Rabbit, OECD, TG 404 Skin sensitization : Non-sensitizing, guinea-pig, Maximization test Germ cell mutagenicity : Negative, in vitro bacterial reverse mutation test (Salmonella typhimurium TA 98, 100, 1535, 1537, 1538)
Ingestion	Harmful if swallowed
EyeIrritant	Causes severe eye damage.
SkinIrritant	Toxic in contact with skin. Causes severe skin burns.
Carcinogen Category	0

12. ECOLOGICAL INFORMATION

Ecotoxicity	Fish : LC50 3mg/L 96hr Oncorhynchus mykiss Daphnia : EC50 2.9mg/L 48hr Daphnia magna Algae : EC50 170 mg/L 96 h Redissual : log Kow 2
Persistence/Degradability	Persistence : log Kow 2 90% of product can biodegrade.
Mobility	Mobility in soil: Koc 1064
Environmental Fate	No Data Available
Bioaccumulation Potential	Accumulation : BCF 3. 16 Biodegradability : 80(%) 28 day (OECD TG 301 B)
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice.



14. TRANSPORT INFORMATION

ADG Code Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).

Air**IATA**

Proper Shipping Name ALKYLSULPHONIC ACIDS, LIQUID with 5% or less free sulphuric acid
Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available
UN Number 2586
Hazchem 2X
Pack Group III
Special Provision No Data Available

Land**Australia: ADG**

Proper Shipping Name ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
Class 8 Corrosive Substances
Subsidiary Risk(s) C1 Combustible Liquids - Flash point 61 - 150 °C
EPG 36 Toxic And/Or Corrosive Substances Combustible
UN Number 2586
Hazchem 2X
Pack Group III
Special Provision No Data Available

Fiji:

Proper Shipping Name ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available
EPG 36 Toxic And/Or Corrosive Substances Combustible
UN Number 2586
Hazchem 2X
Pack Group III
Special Provision No Data Available

New Zealand: NZS5433

Proper Shipping Name ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
Class 8 Corrosive Substances
Subsidiary Risk(s) No Data Available
EPG 36 Toxic And/Or Corrosive Substances Combustible
UN Number 2586
Hazchem 2X
Pack Group III
Special Provision No Data Available

Papua New Guinea:

Proper Shipping Name ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid



Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	36 Toxic And/Or Corrosive Substances Combustible
UN Number	2586
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

United States of America: US DOT

Proper Shipping Name	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	153 Substances - Toxic and/or Corrosive (Combustible)
UN Number	2586
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

Sea**IMDG**

Proper Shipping Name	ALKYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2586
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
EMS	FA,SB
Marine Pollutant	No

15. REGULATORY INFORMATION

General Information No Data Available

EPA (New Zealand)**Hazardous Substances and New Organisms Act (HSNO)**

Approval Code: HSR003163

Poisons Schedule (Aust) No Data Available

AICS Name BENZENESULFONIC ACID, C10-16-ALKYL DERIVATIVES

16. OTHER INFORMATION

Related Product Codes DOBENC1000, DOBENC1100, DOBENZ1000, DOBENZ1001, DOBENZ1002, DOBENZ1003, DOBENZ1004, DOBENZ1005, DOBENZ1006, DOBENZ1007, DOBENZ1008, DOBENZ1009, DOBENZ1010, DOBENZ1011, DOBENZ1012, DOBENZ1500, DOBENZ1501, DOBENZ2500, DOBENZ2501, DOBENZ3000, DOBENZ3300, DOBENZ3400, DOBENZ3500, DOBENZ3600, DOBENZ4000, DOBENZ5000, DOBENZ5100, DOBENZ5200, DOBENZ5201, DOBENZ5500, DOBENZ5600, DOBENZ6001, DOBENZ6002, DOBENZ6200, DOBENZ6300,



DOBENZ6500, DOBENZ6600, DOBENZ6700, DOBENZ6900, DOBENZ7000, DOBENZ7001, DOBENZ7100, DOBENZ7200, DOBENZ7700, DOBENZ7800, DOBENZ8000, DOBENZ8001, DOBENZ8002, DOBENZ8003, DOBENZ8004, DOBENZ8005, DOBENZ8006, DOBENZ8007, DOBENZ8008, DOBENZ8009, DOBENZ8010, DOBENZ8011, DOBENZ8012, DOBENZ8013, DOBENZ8014, DOBENZ8015, DOBENZ8016, DOBENZ8017, DOBENZ8018, DOBENZ8019, DOBENZ8020, DOBENZ8021, DOBENZ8022, DOBENZ8023, DOBENZ8024, DOBENZ8025, DOBENZ8026, DOBENZ8500, DOBENZ8700, DOBENZ9000, DOBENZ9500, DOBENZ9600, DOBENZ9700, DOBENZ9701, DOBENZ9702, DOBENZ9703, DOBENZ9704, DOBENZ9705, DOBENZ9706, DOBENZ9707, DOBENZ9708, DOBENZ9709, DOBENZ9800, DOBENZ9801, DOBENZ9900, DOBENZ1800, DOBENZ1801, DOBENZ1802, DOBENZ1803, DOBENZ1804, DOBENZ1805, DOBENZ1806, DOBENZ1807, DOBENZ1808, DOBENZ1809, DOBENZ1810, DOBENZ1811, DOBENZ1812, DOBENZ1813, DOBENZ1814, DOBENZ1815, DOBENZ1816, DOBENZ1817, DOBENZ1818, DOBENZ1819, DOBENZ1820, DOBENZ9100, DOBENZ9101, DOBENZ6800, DOBENZ6801, DOBENZ2100, DOBENZ2101, DOBENZ2110, DOBENZ1821, DOBENZ2105, DOBENZ6811, DOBENZ0100, DOBENZ6802, DOBENZ2108

Revision

3

Revision Date

31 Oct 2013

Key/Legend

< Less Than
 > Greater Than
AICS Australian Inventory of Chemical Substances
atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm² Square Centimetres
CO₂ Carbon Dioxide
COD Chemical Oxygen Demand
deg C (°C) Degrees Celcius
EPA (New Zealand) Environmental Protection Authority of New Zealand
deg F (°F) Degrees Farenheit
g Grams
g/cm³ Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluble in each other.
inHg Inch of Mercury
inH₂O Inch of Water
K Kelvin
kg Kilogram
kg/m³ Kilograms per Cubic Metre
lb Pound
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.
ltr or **L** Litre
m³ Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m³ Milligrams per Cubic Metre
Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH₂O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Health and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
torr Millimetre of Mercury



TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight

