SAFETY DATA SHEET
AEROSOL OT-100% SURFACTANT
REVISION 4, DATE 09 MAY 19

1. IDENTIFICATION

Product Name	**AEROSOL OT-100% SURFACTANT**
Other Names	Sodium dioctyl sulfosuccinate
Uses	Surfactant.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Sodium bis(2-ethylhexyl)sulfosuccinate
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)	Not Scheduled

Globally Harmonised System

Hazard Classification			Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Hazard Categories			Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Irritation - Category 1
Pictograms			
Signal Word			Danger
Hazard Statements		**H315**	Causes skin irritation.
		H318	Causes serious eye damage.
Precautionary Statements	Prevention	**P280**	Wear protective gloves/eye protection/face protection.
	Response	**P302 + P352**	IF ON SKIN: Wash with plenty of water.
		P332 + P313	If skin irritation occurs: Get medical attention.
		P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
		P362 + P364	Take off contaminated clothing and wash it before reuse.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification	Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium bis(2-ethylhexyl)sulfosuccinate	C20H38O7S.Na	577-11-7	>=95 - <99 %
Moisture	H2O	7732-18-5	<=2 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth. Do not give anything to drink. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice. Consult with an ophthalmologist immediately in all cases.
Skin	IF ON SKIN: Remove and isolate contaminated clothing and shoes. Immediately flush skin with running water for at least 15 minutes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical attention.
Advice to Doctor	Treat symptomatically. Take victim immediately to hospital. Immediate medical attention is required. Keep under medical supervision for at least 48 hours. *Most important symptoms and effects, both acute and delayed: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Ingestion may provoke nausea, diarrhoea, abdominal pain. In case of inhalation, irritation/corrosion of the respiratory tract; Risk of respiratory disorder. Inhalation may provoke cough, breathing difficulties. May cause irreversible skin damage; Dermatitis. May cause irreversible eye damage; Loss of the eye. Eye contact may provoke lachrymation, conjunctivitis.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	Product is not flammable; Will burn under fire conditions.
Extinguishing Media	Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction - Do not use high volume water jet. *Do not use a solid water stream as it may scatter and spread fire.
Fire and Explosion Hazard	On combustion, toxic gases are released.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, Sulfur oxides.
Special Fire Fighting Instructions	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	>180 °C
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (if dust clouds can occur). Do not touch or walk through spilled material. Avoid dust formation. Avoid breathing dust/mist/vapour/aerosols and contact with eyes, skin and clothing.
Clean Up Procedures	Sweep up and shovel into suitable, properly labelled containers for disposal (see SECTION 13). *Never return spills in original containers for re-use.
Containment	Stop leak if you can do it without risk. Dike far ahead of liquid spill for later disposal. Cover powder spill with plastic sheet or tarp to minimize spreading.
Decontamination	After cleaning, flush away traces with water. Recover the cleaning water for subsequent disposal. Decontaminate tools, equipment and personal protective equipment in a segregated area. Do not let product enter drains. Do not allow uncontrolled discharge of product into the environment.

Environmental Precautionary Measures	
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use appropriate personal protective equipment (see SECTION 8). *Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid breathing dust/mist/vapour/aerosols and contact with eyes, skin and clothing. Do not ingest. Use appropriate personal protective equipment (see SECTION 8). Avoid release to the environment.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10). *Recommended storage temperature: 20 °C
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Contains no substances with occupational exposure limit values above their regulatory reporting threshold.
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	Provide appropriate exhaust ventilation at places where dust is formed. Apply technical measures to comply with the occupational exposure limits. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.
Personal Protection Equipment	- Respiratory protection: For operations where inhalation exposure can occur, use an approved respirator. Where inhalation exposure cannot occur, no respiratory protection is required. Recommended: Respirator with a full face mask, P2 filter; Self-contained breathing apparatus in confined spaces/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection. Use only respiratory protection that conforms to international/national standards (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tightly fitting safety goggles and/or face shield. - Hand protection: Wear protective gloves. Recommended: Impervious gloves, e.g. Nitrile or fluorinated rubber gloves. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility, etc.) is noticed. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Dust impervious protective suit.
Special Hazards Precaustions	No information available.
Work Hygienic Practices	When using do not eat, drink or smoke. Food, beverages and tobacco products should not be carried, stored or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. Take off contaminated clothing and wash it before reuse. Change working clothes after each work-shift. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Roll - thin, wax-like sheets
Odour	Faint, n-Octanol

Colour	White
pH	No Data Available
Vapour Pressure	Negligible (@ No Data Available)
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	153 - 157 °C
Freezing Point	No Data Available
Solubility	8.17 g/l in water 0°C
Specific Gravity	1.1
Flash Point	No Data Available
Auto Ignition Temp	>180 °C
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	1.146 g/cm3 [OECD Test Guideline 109]
Specific Heat	No Data Available
Molecular Weight	444 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	log Pow: 1.998 (20 °C) [EU Test Guideline A8]
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	Negligible
VOC Volume	<1 %
Additional Characteristics	No information available.
Potential for Dust Explosion	No information available.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Product is not flammable; Will burn under fire conditions.
Reactions That Release Gases or Vapours	On combustion/decomposition, toxic gases are released, including Carbon dioxide (CO2), Sulphur oxides, Carbon monoxide.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Corrodes steel in the presence of water. Strong acids and alkalis cause hydrolysis.
Chemical Stability	Stable.
Conditions to Avoid	Avoid dust formation.

Materials to Avoid	Incompatible/reactive with strong acids and alkalis.
Hazardous Decomposition Products	On combustion/decomposition, toxic gases are released, including Carbon dioxide (CO2), Sulphur oxides, Carbon monoxide.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information

Information on toxicological effects:
- Acute toxicity: Not classified. Based on available data and/or professional judgment, the classification criteria are not met.
- Skin corrosion/irritation: Causes skin irritation. COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): Irritating to skin (Rabbit) [OECD Test Guideline 404].
- Eye damage/irritation: Causes serious eye damage. COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): Risk of serious damage to eyes (Rabbit) [OECD Test Guideline 405].
- Respiratory/skin sensitisation: Not classified. Based on available data and/or professional judgment, the classification criteria are not met. Not sensitising (dermal/inhalation). COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): Does not cause skin sensitisation (Repeated Insult Patch Test - Humans).
- Germ cell mutagenicity: Not classified. Based on available data and/or professional judgment, the classification criteria are not met. Not mutagenic. COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): Negative, Ames test (Salmonella Typhimurium) [OECD Test Guideline 471]. Negative, Chromosome aberration test in vitro (Chinese hamster fibroblasts) [OECD Test Guideline 473]. Negative, Gene mutation assays in mammalian cells (mouse lymphoma cells) [OECD Test Guideline 476].
- Carcinogenicity: Not classified. Based on available data and/or professional judgment, the classification criteria are not met.
- Reproductive toxicity: Not classified. Based on available data and/or professional judgment, the classification criteria are not met.
- STOT (single exposure): Not classified. Based on available data and/or professional judgment, the classification criteria are not met. COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.
- STOT (repeated exposure): Not classified. Based on available data and/or professional judgment, the classification criteria are not met.
- Aspiration toxicity: Not classified. Based on available data and/or professional judgment, the classification criteria are not met.

Information on likely routes of exposure:
- Ingestion: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Symptoms may include nausea, diarrhoea, abdominal pain.
- Eye contact: Causes eye burns. May cause irreversible eye damage; Loss of the eye. Symptoms may include lachrymation, conjunctivitis.
- Skin contact: Causes skin irritation, redness, swelling of tissue. May cause irreversible skin damage.
- Inhalation: In case of inhalation, irritation/corrosion of the respiratory tract. Risk of respiratory disorder. Symptoms may include cough, breathing difficulties.

Chronic effects: Chronic exposure may cause dermatitis.

Acute

Ingestion

Acute toxicity (Oral):
- LD50, Rat: >3,100 mg/kg (gavage).

COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7):
- LD50, Rat (male & female): 3,000 mg/kg [OECD Test Guideline 401].

Other

Acute toxicity (Dermal):
- LD50, Rabbit: >10,000 mg/kg

COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7):
- LD50, Rabbit (male): >10,000 mg/kg [OECD Test Guideline 402].

Inhalation

Acute toxicity (Inhalation):
- LC50, Rat: >20 mg/L (4 h).

Chronic

Reproduction	Toxicity to reproduction/fertility: COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): - NOAEL, Rat (Parent, male & female): 750 mg/kg bw/day (Oral, 3 generations) [OECD Test Guideline 416]. *no impairment of fertility has been observed Developmental toxicity/teratogenicity: COMPONENT: Sodium dioctyl sulphosuccinate (CAS No. 577-11-7): - NOAEL, Rat (females): 1,074 mg/kg (Oral) [OECD Test Guideline 414]. *Developmental toxicity was observed in the presence of maternal toxicity.
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Brachydanio rerio): 49 mg/L (96 h). - EC50, Crustacea (Daphnia magna): 15.2 mg/L (48 h). - ErC50, Algae/aquatic plants (Desmodesmus subspicatus): 82.5 mg/l (72 h).
Persistence/Degradability	Readily biodegradable (91 %, 28 days) [OECD Test Guideline 310].
Mobility	No information available.
Environmental Fate	Harmful to aquatic life - Avoid release to the environment.
Bioaccumulation Potential	Accumulation in organisms is not expected.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Recycle, recover and reuse materials where permitted. If disposal is necessary, it is recommended that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities; All local and national regulations should be followed.
Special Precautions for Land Fill	Measure for waste avoidance or recovery: Do not dispose of the product at a rubbish tip.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	AEROSOL OT-100% SURFACTANT
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)
ADR Code

Proper Shipping Name	AEROSOL OT-100% SURFACTANT
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	AEROSOL OT-100% SURFACTANT
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)
US DOT

Proper Shipping Name	AEROSOL OT-100% SURFACTANT
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport
IMDG Code

Proper Shipping Name	AEROSOL OT-100% SURFACTANT
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No

Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport
IATA DGR

Proper Shipping Name	AEROSOL OT-100% SURFACTANT
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002503 - Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2020

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	Not Determined
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Determined

Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes	DISOSU3001, SULPOS3000, SULPOS4000
Revision	4
Revision Date	09 May 2019
Key/Legend	< Less Than > Greater Than **AICS** Australian Inventory of Chemical Substances **atm** Atmosphere **CAS** Chemical Abstracts Service (Registry Number) **cm^2** 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/cm^3** 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 insoluable in each other. **inHg** Inch of Mercury **inH2O** Inch of Water **K** Kelvin **kg** Kilogram **kg/m^3** 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 **m^3** Cubic Metre **mbar** Millibar **mg** Milligram **mg/24H** Milligrams per 24 Hours **mg/kg** Milligrams per Kilogram **mg/m^3** 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 Heath 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
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight