

1. IDENTIFICATION

| Product Name | Fatty Alcohol Pure 12/12 |
|---------------------|---|
| Other Names | Dodecan-1-ol, ethoxylated; Polyoxyethylene C12-14 ether; Polyoxyethylene Lauryl Ether |
| Uses | Nonionic surfactant; Emulsifier; Detergent. |
| Chemical Family | No Data Available |
| Chemical Formula | (C2H4O)nC12H26O |
| Chemical Name | Ethoxylated lauryl alcohol |
| 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

Redox Ltd

Corporate Office Sydney Locked Bag 15 Minto NSW 2566 Australia 2 Swettenham Road Minto NSW 2566 Australia All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Phone +61 2 9733 3000 +61 2 9733 3111 Fax E-mail sydney@redox.com Web www.redox.com ABN 92 000 762 345

Australia New Zealand Adelaide Auckland Christchurch Brisbane Melbourne Hawke's Bay Perth UK London Sydney

Malaysia Kuala Lumpur USA Los Angeles Oakland Mexico Saltillo



| Globally Harmonised Syste | em | | |
|---------------------------|------------|---|---|
| Hazard Classification | | Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) | |
| Hazard Categories | | Acute Toxicity (Oral) - Ca | ategory 4 |
| | | Serious Eye Damage/Irri | tation - Category 1 |
| Pictograms | | | |
| Signal Word | | Danger | |
| Hazard Statements | | H302 | Harmful if swallowed. |
| | | H318 | Causes serious eye damage. |
| Precautionary Statements | Prevention | P280 | Wear eye protection/face protection. |
| | | P264 | Wash hands thoroughly after handling. |
| | | P270 | Do not eat, drink or smoke when using this product. |
| | Response | 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. |
| | | P301 + P312 | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. |
| | | P330 | Rinse mouth. |
| | Disposal | P501 | Dispose of contents/container in accordance with local / regional / national / international regulations. |
| | | | |

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 |
|------------------------------|-----------------|------------|---------------|
| Polyoxyethylene C12-14 ether | (C2H4O)nC12H26O | 9002-92-0 | >99.5 - 100 % |

4. FIRST AID MEASURES

| Description of necessary measures | s according to routes of exposure |
|--|--|
| Swallowed | IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting. Call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person. |
| Еуе | 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. |
| 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 advice/attention. |
| Advice to Doctor | Treat symptomatically. *Most important symptoms and effects, both acute and delayed: Harmful if swallowed. Causes serious eye damage. |
| 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. Dike fire-control water for later disposal. |
|-------------------------------------|---|
| Flammability Conditions | May burn but does not ignite readily. *Flame might be invisible in daylight. |
| Extinguishing Media | Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Do not scatter spilled material with high- pressure water streams. |
| Fire and Explosion Hazard | Containers may explode when heated. |
| Hazardous Products of Combustion | Fire may produce irritating and/or toxic gases. |
| Special Fire Fighting Instructions | Contain runoff from fire control or dilution water - Runoff may cause pollution. |
| Personal Protective Equipment | Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. |
| Flash Point | >250 °C [Closed cup] |
| Lower Explosion Limit | No Data Available |
| Upper Explosion Limit | No Data Available |
| Auto Ignition Temperature | No Data Available |
| Hazchem Code | No Data Available |

6. ACCIDENTAL RELEASE MEASURES

| General Response Procedure | Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid breathing mist/vapours/aerosols and contact with eyes, skin and clothing. |
|---|--|
| Clean Up Procedures | Absorb with earth, sand or other non-combustible material and transfer to a suitable container for disposal (see SECTION 13). |
| Containment | Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike far ahead of large spill for later disposal. |
| Decontamination | No information available. |
| Environmental Precautionary Measures | Prevent entry into drains and waterways. |
| Evacuation Criteria | Spill or leak area should be isolated immediately. Keep unauthorised personnel away. |
| Personal Precautionary Measures | Use personal protective equipment as required (see SECTION 8). |

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 breathing mist/vapours/aerosols and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Avoid high temperatures and sources of ignition - No smoking. Avoid release to the environment. |
|-----------|--|
| Storage | Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers securely sealed - Check regularly for leaks. Protect containers against physical damage. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). |
| Container | Keep in the original container. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| General | No specific exposure standards are available for this product. | | |
|-------------------------------|--|--|--|
| Exposure Limits | No Data Available | | |
| Biological Limits | No information available. | | |
| Engineering Measures | 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 Equipment | Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic vapour/particulate filter respirator (refer to AS/NZS 1715 & 1716). Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Chemical splash goggles. Hand protection: Handle with gloves. Recommended: Protective gloves, e.g. Rubber gloves. Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Protective working clothes and safety shoes. | | |
| Special Hazards Precaustions | No information available. | | |
| Work Hygienic Practices | Do not eat, drink or smoke when using this product. Wash hands before break and at the end of work. Immediately remove all soiled and contaminated clothing. Keep work environment clean. | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical State | Liquid |
|--------------------------------|---------------------------------|
| Appearance | Liquid (paste) |
| Odour | Natural alcohol |
| Colour | Colourless |
| рН | 5.0 - 7.0 (1% aq.) |
| Vapour Pressure | No Data Available |
| Relative Vapour Density | >1 Air = 1 |
| Boiling Point | No Data Available |
| Melting Point | No Data Available |
| Freezing Point | 23 - 24 °C |
| Solubility | Soluble in water (>10 g/100 ml) |
| Specific Gravity | 0.995 - 1.015 |
| Flash Point | >250 °C [Closed cup] |
| Auto Ignition Temp | No Data Available |
| | |

| Evaporation Rate | No Data Available |
|--|---|
| Bulk Density | No Data Available |
| Corrosion Rate | No Data Available |
| Decomposition Temperature | >250 °C |
| Density | No Data Available |
| Specific Heat | No Data Available |
| Molecular Weight | No Data Available |
| Net Propellant Weight | No Data Available |
| Octanol Water Coefficient | No Data Available |
| 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 | No Data Available |
| VOC Volume | No Data Available |
| Additional Characteristics | No information available. |
| Potential for Dust Explosion | Not applicable. |
| 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 | May burn but does not ignite readily. *Flame might be invisible in daylight. |
| Reactions That Release Gases or Vapours | Fire/decomposition may produce irritating and/or toxic gases. |
| Release of Invisible Flammable Vapours and Gases | No information available. |

10. STABILITY AND REACTIVITY

| General Information | No dangerous reactions known. |
|-------------------------------------|---|
| Chemical Stability | Product is stable under normal conditions. |
| Conditions to Avoid | Avoid high temperatures and sources of ignition. |
| Materials to Avoid | Incompatible/reactive with strong acids and oxidising agents. |
| Hazardous Decomposition Products | Fire/decomposition may produce irritating and/or toxic gases. |
| Hazardous Polymerisation | No information available. |

11. TOXICOLOGICAL INFORMATION

General Information

Information on toxicological effects:

- Acute toxicity: Harmful if swallowed.
- Skin corrosion/irritation: Causes mild skin irritation.

- Eye damage/irritation: Causes serious eye damage.
- Respiratory/skin sensitisation: Based on available data, AEs are not considered skin sensitisers [NICNAS].
- Germ cell mutagenicity: Based on the data available, AEs are not considered mutagenic or genotoxic [NICNAS].
 - Carcinogenicity: Based on the available data, AEs are not considered carcinogenic [NICNAS].

- Reproductive toxicity: Based on the data available, AEs are not considered to cause reproductive or developmental toxicity [NICNAS].

- STOT (single exposure): Inhalation of mist/aerosols of this chemical may cause respiratory irritation.

- STOT (repeated exposure): Based on the available data, AEs are not expected to cause serious damage to health from repeated exposure [NICNAS].

- Aspiration toxicity: No information available.

Information on likely routes of exposure:

- Ingestion: Harmful if swallowed.
- Eye contact: Causes serious eye damage.
- Skin contact: May cause skin irritation.
- Inhalation: Inhalation of droplets and/or particles (aerodynamic diameters <10 μ m) released from the aerosolised products of these surfactant chemicals may cause respiratory irritation and consequent damage to the lung through prolonged or repeated exposure.

Chronic effects: No information available.

Carcinogen Category

12. ECOLOGICAL INFORMATION

| Ecotoxicity | No information available. |
|----------------------------------|-----------------------------------|
| Persistence/Degradability | No information available. |
| Mobility | No information available. |
| Environmental Fate | Avoid release to the environment. |
| Bioaccumulation Potential | No information available. |
| Environmental Impact | No Data Available |
| | |

None

13. DISPOSAL CONSIDERATIONS

| General Information | Dispose of contents/container in accordance with local/regional/national regulations. |
|-----------------------------------|---|
| Special Precautions for Land Fill | No information available. |

14. TRANSPORT INFORMATION

| Land Transport (Australia) ADG Code | |
|---|--|
| Proper Shipping Name | FATTY ALCOHOL PURE 12/12 |
| Class | C2 Combustible Liquids - Flash Point >93°C, Closed Cup, Not Excluded Flammable |
| 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 | Fatty Alcohol Pure 12/12 |
| 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 | Fatty Alcohol Pure 12/12 |
| 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 | Fatty Alcohol Pure 12/12 |
| 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 (Vanuatu) | |
| Land Transport (Vanuatu) Proper Shipping Name | Fatty Alcohol Pure 12/12 |
| | Fatty Alcohol Pure 12/12 No Data Available |
| Proper Shipping Name | |
| Proper Shipping Name Class | No Data Available |
| Proper Shipping Name Class | No Data Available 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 | Fatty Alcohol Pure 12/12 |
| 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 | Fatty Alcohol Pure 12/12 |
| 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) | Listed |
| Europe (REACh) | Not Determined |
| Japan (ENCS/METI) | Listed |
| Korea (KECI) | Listed |
| Malaysia (EHS Register) | Not Determined |
| New Zealand (NZIoC) | Listed |
| 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 | SUFFAJ1000, SUFFAJ1001, SUFFAJ1003, SUFFAJ1004 |
|------------------------------|--|
| Revision | 5 |
| Revision Date | 09 Dec 2022 |
| Reason for Issue | Changed from DG UN 3082 to Not Dangerous as confirmed by Leon after advise from supplier 4/11/2016 |
| 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/I 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 |

Ib 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. Itr 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 mmH20 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