## 1. IDENTIFICATION OF THE MATERIAL AND THE MANUFACTURER

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|---|---|---|---|
| **Product Name** | **ARANDELL SURFACE SANITISER 500ml**<br>Fragrances: Fragrance Free | | |
| **Supplier Name** | Arandee Ltd | | |
| **Address** | 108 Rockfield Road, Penrose, Auckland 1061, New Zealand | | |
| **Telephone** | +64 (9) 579 5139 | | |
| **Emergency** | National Poisons Centre -24 hours | Australia<br>New Zealand | 13 11 26<br>0800 POISON<br>0800 764 766 |
| **E-mail** | sales@arandee.co.nz | | |
| **Web Site** | http://www.arandee.co.nz | | |
| **Synonym(s)** | MAC Arandell; MAC Arandell Surface Sanitiser | | |
| **Use(s)** | A powerful surface sanitiser that leaves surfaces hygienically clean (kills up to 99.9% of common germs & viruses). The unique formulation disinfects and conditions surfaces. Suitable for use on hard or soft surfaces. Designed for use in commercial and industrial settings, public health and government institutions. May be used as a no rinse sanitiser in some areas. | | |

## 2. HAZARDS IDENTIFICATION

**AUSTRALIA: CLASSIFIED AS HAZARDOUS ACCORDING TO THE GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) INLCUDING WORK, HEALTH AND SAFETY REGULATIONS, AUSTRALIA**

**NEW ZEALAND: THIS SUBSTANCE IS HAZARDOUS ACCORDING TO THE EPA HZARDOUS SUBSTANCES (CLASSIFICATION) NOTICE 2020**

**Hazard pictograms**

**Signal Word** **DANGER**

| **GHS Classification and Category** | **Hazard Code** | **Hazard Statement** |
|---|---|---|
| **Aerosol Category 1** | H222 | Extremely flammable aerosol. |
| | H229 | Pressurised container: May burst if heated. |
| **Prevention Code** | P102 | Keep out of reach of children. |
| | P103 | Read label before use. |
| | P210 | Keep away from heat, hot surfaces, sparks open flames and Other sources of ignition. No smoking. |
| | P211 | Do not spray on an open flame or other ignition source. |
| | P251 | Do not pierce or burn, even after use. |
| **Response Code** | P101 | If medical advice is needed, have product container or label at hand. |
| **Storage Code** | P410 | Protect from sunlight. |
| | P412 | Do not expose to temperatures exceeding 50°C. |
| **Disposal Code** | P501 | Dispose of in accordance with relevant local legislation. |

## 3. HAZARDS IDENTIFICATION COMPOSITION OF INGREDIENTS

| Name | % Weight | CAS Number |
|---|---|---|
| ETHANOL SDA3A BS 506:1963 | 70-75% | 64-17-5 |
| HYDROCARBON PROPELLANT BLEND | 60-80% | 68476-85-7 |
| OTHER INGREDIENTS | 1-5% | |

## 4. FIRST AID MEASURES

**Eye** Hold eyelids apart and flush continuously with water. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.

**Inhalation** Leave area of exposure immediately. If irritation persists, seek medical attention.

**Skin** Gently flush affected areas with water. Seek medical attention, if irritation persists.

**Ingestion** For advice, contact a Poisons Information Centre on 0800 764 766 (0800 POISON) or +64 9 579 5139 (New Zealand) or a doctor. If swallowed, DO NOT induce vomiting, as ingestion is considered unlikely, due to the product form.

**Advice to Doctor** Treat symptomatically.

**First Aid Facilities** Eye wash facilities should be provided.

## 5. FIRE FIGHTING MEASURES

**Flammability** Highly flammable. Vapours may form explosive mixtures with air. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition temperatures. When handling a significant spillage, eliminate all ignition sources, including cigarettes, open flames, spark producing switches, heaters, naked lights, mobile phones, etc. Aerosol cans may explode when heated above 50 ºC.

**Special Exposure Hazards** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Hazardous Thermal Decomposition Products** Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

**Special Protective Equipment for Fire-fighters** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Fire and Explosion** Highly flammable, explosive vapour. Evacuate area and contact emergency services. Toxic gases may evolve, when heated. Remain upwind and notify those downwind of hazard. Wear full protective equipment, including Self Contained Breathing Apparatus (SCBA), when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**Extinguishing** Dry agent, carbon dioxide foam, or water fog. Prevent contamination of drains or waterways; absorb runoff with sand or similar.

**HazChem** 2YE

## 6. ACCIDENTAL RELEASE MEASURES

**Small Spill**

Stop leak without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

**Large Spill**

If large quantities of cans are punctured (bulk), clear area of all unprotected personnel and ventilate area. Wear splash-proof goggles, leather gloves, coveralls, and boots. Where inhalation risks exist, wear a Type A-Class P1 (Organic vapour and Particulate) respirator. Collect cans and allow to discharge outdoors. Absorb any residues with sand or similar and place in clean containers for disposal. DO NOT wash away into sewer.

## 7. HANDLING AND STORAGE

**Handling**

Use safe work practices to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Keep out of the reach of children.
DO NOT puncture aerosol cans or incinerate, even when empty.

**Storage**

Store in a cool, dry well ventilated area, well away from oxidising agents, acids, alkalis, direct sunlight, heat or ignition sources, or foodstuffs. Ensure containers are adequately labelled, protected from physical damage, and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Ingredient Name | Exposure Limits |
|---|---|
| Ethanol | **Safe Work Australia (Australia, 8/2005)** |
| | TWA: 1880 mg/m³ 8 hour(s). |
| Propane | TWA: 1000 ppm 8 hour(s). |
| | **ACGIH TLV (United States, 2/2010)** |
| Butane | TWA: 1000 ppm 8 hour(s).**Safe Work Australia (Australia, 8/2005).** |
| | TWA: 1900 mg/m³ 8 hour(s). |
| | TWA: 800 ppm 8 hour(s). |
| Ethanol | **NZ OSH (New Zealand, 12/2010)** |
| | WES-TWA: 1000 ppm 8 hour(s). |
| Propane | WES-TWA: 1880 mg/m³ 8 hour(s). |
| | **ACGIH TLV (United States, 2/2010).** |
| Butane | TWA: 1000 ppm 8 hour(s). |
| | **NZ OSH (New Zealand, 12/2010).** |
| | WES-TWA: 800 ppm 8 hour(s). |
| | WES-TWA: 1990 mg/m³ 8 hour(s). |

**Ventilation**

DO NOT directly inhale concentrated vapours. Use in well-ventilated areas. Mechanical extraction ventilation is recommended for poorly ventilated area. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

**Exposure Standards**

LIQUIFIED PETROLEUM GAS (LPG) (68476-85-7)
ES-STEL: 400 ppm (1800 mg/m³)

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| **Personal Protection Equipment** | No personal protective equipment is required, normally. When an inhalation risk exists wear a Type A-Class P1 (Organic vapour and Particulate) Respirator. With prolonged use, wear PVC or rubber gloves and splash-proof goggles or safety glasses. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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| **Appearance** | COLOURLESS LIQUID | **Vapour Pressure** | 213 KPa (ROOM TEMPERATURE) |
| **Odour** | CHARACTERISTIC SOLVENT/ETHANOL | **Upper Explosion Limit** | 9.5%v/v |
| **Flammability** | EXTREMELY FLAMMABLE | **Lower Explosion Limit** | 1.5% v/v |
| **Flash Point** | >-60 °C | **Partition Coefficient** | NOT AVAILABLE |
| **Boiling Point** | <35 °C | **Autoignition Temperature** | NOT AVAILABLE |
| **Melting Point** | NOT AVAILABLE | **Decomposition Temperature** | NOT AVAILABLE |
| **Evaporation Rate** | NOT AVAILABLE | **Viscosity** | NOT AVAILABLE |
| **pH** | NOT AVAILABLE | **Explosive Properties** | NOT AVAILABLE |
| **Vapour Density** | >1 | **Oxidising Properties** | NOT AVAILABLE |

## 10. STABILITY AND REACTIVITY

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|---|---|
| **Reactivity** | Avoid reaction with oxidising agents |
| **Chemical stability** | Stable under normal storage conditions |
| **Possibility of Hazardous reactions** | Polymerisation is not expected to occur |
| **Conditions to avoid** | Avoid heat, sparks, open flames and all sources of ignition |
| **Incompatible materials** | Incompatible with oxidising agents, acids, alkalis, heat and ignition |
| **Decomposition Products** | May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition temperatures. |

## 11. TOXICOLOGICAL INFORMATION

| Acute Toxicitiy | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Ethanol | LC50 Inhalation Vapour | Rat | 124700 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 7 g/kg | - |
| Butane | LC50 Inhalation Vapour | Rat | 658000 mg/m³ | 4 hours |

| Irritation/Corrosion | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| Ethanol | Eyes – Moderate irritant | Rabbit | - | 0.066666667 minutes 100 milligrams | - |
| | Skin – Moderate irritant | Rabbit | - | 24 hours 20 milligrams | - |

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| **Health Hazard Summary** | General population. The exposure of the general population is expected to be low and is not likely to present a hazard when it is used as recommended. |

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| | Occupational exposure. With reasonable work practices, hygiene measures and Safety precautions, is unlikely to be an occupational hazard. Asphyxiant narcotic. This product may only present a hazard with direct eye contact, prolonged and repeated skin contact or with vapour/gas inhalation at high levels. |
| **Eye** | Low irritant. Contact may result in lacrimation, pain, redness, and conjunctivitis. Prolonged contact may result in corneal burns, with possible permanent damage. |
| **Inhalation** | Low to moderate Irritant, narcotic, asphyxiant. Over exposure may result in upper respiratory tract irritation, nausea, and headache. At high levels; dizziness, breathing difficulties, and at very high levels, anaesthesia, cardiac arrhythmias, pulmonary oedema and unconsciousness. |
| **Skin** | Low irritant. Prolonged contact may result in irritation, redness, rash, dermatitis, and sensitisation. |
| **Ingestion** | Exposure considered unlikely, due to product form as an aerosol. Under normal conditions of use, ingestion is considered a highly unlikely, exposure route. |

## 12. ECOLOGICAL INFORMATION

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| **Ecotoxicity** | No known significant effects or critical hazards. |
| **Other effects** | No known significant effects or critical hazards. |
| **Environment** | Environmental effects of the compound are extremely unlikely, due to packaging in the form of an aerosol. Ensure appropriate measures are taken to prevent this product from entering the environment through wastewater. |

## 13. DISPOSAL CONSIDERATIONS

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| **Waste Disposal** | For small amounts, absorb contents with sand or similar and dispose of to an approved landfill site. DO NOT puncture or incinerate aerosol cans. Contact the manufacturer for additional information. |
| **Legislation** | Dispose of in accordance with relevant, local legislation. |

## 14. TRANSPORT INFORMATION

**THIS PRODUCT IS CLASSIFIED AS A DANGEROUS GOODS FOR TRANSPORT IN NZ; NZS 5433:2020 AND SNZ HB 5433:2021**

| | Shipping Name | UN No | Packing Group | DG Class | Subsidiary Risk(s) | EPG |
|---|---|---|---|---|---|---|
| **LAND TRANSPORT** | FLAMMABLE AEROSOL | 1950 | None Allocated | 2.1 | None Allocated | |
| **SEA TRANSPORT (IMDG/IMO)** | FLAMMABLE AEROSOL | 1950 | III | 2.1 | None Allocated | |
| **AIR TRANSPORT IATA/ICAO)** | FLAMMABLE AEROSOL | 1950 | None Allocated | 2.1 | None Allocated | |

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| **Special precautions for user** | **Transport within user's premises:** always transport in closed containers that are upreight and secure. Ensure that persons transporting the product know what to do in thre even of an accident or spillage |

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| **Shipping Label** |  |
| **Special Precautions** | **Hazchem code: 2YE** |

## 15. REGULATORY INFORMATION

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| **MPI** | C44 (all animal product including dariry) |
| **NZEPA** | Approved pursuant to the HSNO Act 1996,<br>Approval No. HSR002515<br>Group Standard Flammable Aerosols 2020 |
| **Certified Handler** | No |
| **Location Certificate** | 3000L (AWC) |
| **Tracking Trigger Quantities** | Not required. |
| **Signage Trigger Quantities** | 100L |
| **Emergency Response Plan** | 100L |
| **Secondary Containment** | 100L |

## 16. OTHER INFORMATION

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| **Additional Information** | ASPHYXIANTS (1): reduce the oxygen concentration by displacement, when present in the atmospheres, in high concentrations. As most simple asphyxiants are odourless, atmospheres deficient in oxygen do not provide adequate sensory warning of danger. Therefore, it is not generally appropriate to recommend an exposure standard for each asphyxiant, but instead warn of the need to maintain oxygen concentrations.<br><br>Some asphyxiants may be given an exposure standard, due to their potential for narcotic effects at high concentrations, or an explosion hazard. |
| **Asphyxiants (2)** | There is a significant hazard associated with workers entering poorly, ventilated areas (e.g. tanks) where oxygen levels may be deficient. An air supplied breathing apparatus may be required if adequate ventilation is not ensured. Refer to AS/NZS 2865 - Safe Working in a Confined Space. |
| **Respirators** | In general, the best practice to avoid exposure is to use engineering controls, such as adequate ventilation, rather than the use of respirators (which should be limited).<br>If respiratory equipment must be worn, ensure correct respirator selection and training is undertaken. Some respirators may be extremely uncomfortable, when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary. |
| **Abbreviations** | Mg/m3 - Milligrams per cubic metre<br>ppm –Parts Per Million<br>M - moles per litre, a unit of measure of concentration.<br>pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 – 14, where 0 is highly acidic and 14 is highly alkaline.<br>TWA/ES - Time Weighted Average or Exposure Standard.<br>CAS# - Chemical Abstract Service number - uniquely identifies chemical compounds. |

CNS - Central Nervous System
NOS - Not Otherwise Specified
IARC - International Agency for Research on Cancer.

**Personal Protective Equipment**

The recommendations for protective equipment contained within this SDS report are provided as a guide only, when dealing with an abnormal situation. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered, before the final selection of personal protective equipment is made.

**Health Effects From Exposure**

It should be noted that the effects from excess exposure to this product would depend on several factors, including duration of exposure, quantity involved, effectiveness of control measures used; protective equipment and method of application. Given that, it is impractical to prepare a SDS report, which would encompass all possible scenarios, it is anticipated that users will assess the risks in an emergency and apply appropriate control methods.

**Report Status**

This report is based upon information provided by ingredient manufacturers, and third party experts. We believe that the information represents the current state of knowledge about safety and handling precautions that are appropriate for this product. Further clarification regarding any aspect of the product should be obtained directly from the Chief Chemist at Arandee Ltd.
While Arandee has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy, or completeness. As far as lawfully possible, Arandee accepts no liability for any loss, injury, or damage (including consequential loss) which may be suffered, or incurred by any person, because of their reliance upon the information contained in this Safety Data Sheet.

**Disclaimer**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any ability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.