



1. IDENTIFICATION OF THE MATERIAL AND THE MANUFACTURER

Product Name	MAC Arandell Hand Sanitiser All pack sizes 210L drum, 5L jerry, 500ml and 140ml bottles		
Statement of Hazard Nature	Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances, New Organisms legislation Classified as a Dangerous Good for transport purposes		
Proper Shipping Name	AEROSOLS		
Supplier Name	Arandee Ltd		
Address	108 Rockfield Road, Penrose, Auckland 1061, New Zealand		
Telephone	+64 (9) 579 5139		
Fax	+64 (9) 579 7628		
Emergency	National Poisons Centre -24 hours	Australia New Zealand	13 11 26 0800 POISON 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 hand sanitiser that contains 70% ethanol. Leaves hands hygienically clean (kills up to 99.9% of common germs & viruses). The unique formulation disinfects and conditions hands. Designed for use in commercial and industrial settings, public health and government institutions		
Approval(s)	Ministry of Primary Industries Approval C54 (all animal products including dairy) AsureQuality food/Beverage/Dairy		

2. HAZARDS IDENTIFICATION

THIS SUBSTANCE IS CLASSIFIED AS A DANGEROUS GOOD ACCOURING TO NZS5433: 2007
EPA APPROVAL CODE: HSR 002552. UN NO 1170



DG Class	3.1B 6.4A	Highly Flammable liquid and vapour Causes eye irritation
Prevention Statements	P103 P210 P233	Read label before use Keep away from heat, sparks, open flame/hot surface Keep container tightly closed



Response Statements	P370+P378	In case of fire: use water, foam, dry spray for extinction
	P305 P351	If in eyes: Rinse with water for several minutes, remove contact lenses, if present and easy to do so. Continue rinsing
	P337 P313	If eye irritation persists get medical advice/attention
Storage Statement	P403 P235	Store in well ventilated place. Keep cool

3. HAZARDS IDENTIFICATION COMPOSITION OF INGREDIENTS

Ingredient	Formula	Concentration	CAS Number
Ethanol Denatured		70.00	64-17-5
Balance of materials not hazardous		30.00	

4. FIRST AID MEASURES

Eye	Hold eyelids apart and flush continuously with water for 15 minutes. Remove contact lenses if present and easy to do so. Continue until advised to stop by the Poisons Information Centre, a doctor, or for at least 15 minutes. Keep patient calm.
Inhalation	Not a likely route of exposure.
Skin	Do not apply to open wounds and avoid broken skin where possible. If irritation occurs 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, Seek medical attention
Advice to Doctor	Treat symptomatically.
First Aid Facilities	Eye wash facilities should be provided.

5. FIRE FIGHTING MEASURES

Flammability	Highly flammable liquid and vapour. When handling a significant spillage, eliminate all ignition sources, including cigarettes, open flames, spark producing switches, heaters, naked lights, mobile phones, etc.
Hazardous Thermal Decomposition Products	None
Special Protective Equipment for Fire-	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**fighters**

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 2Y

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 such as sand and place in an appropriate waste disposal container. Use spark proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Caution: Spill site may be slippery.

Large Spill If large quantities of containers or drums are puncture or spilled, 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 broken skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Keep out of the reach of children.

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

Australia

Ingredient Name	Exposure Limits
Ethanol	Safe Work Australia (Australia, 8/2005) TWA: 1880 mg/m ³ 8 hour(s). TWA: 1000 ppm 8 hour(s).

New Zealand

Ingredient Name	Exposure Limits
Ethanol	NZ OSH (New Zealand, 12/2010)

WES-TWA: 1000 ppm 8 hour(s).
 WES-TWA: 1880 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.

Personal Protection Equipment No personal protective equipment is required, normally. When splashing is possible (bulk liquid) use chemical safety goggles. Maintain eye wash fountain and quick drench facilities in work areas.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	COLOURLESS LIQUID	Solubility (water)	COMPLETELY SOLUBLE IN WATER
Odour	FRAGRANT ODOUR	Specific Gravity	0.85
pH	5.0-7.0	% Volatiles	70%
Vapour Pressure	NA	Flammability	HIGHLY FLAMMABLE
Vapour Density	AIR=1 >1	Flash Point	21-22
Melting Point	NA		
Boiling Point	80-90°C		
Evaporation Rate	NA		

10. STABILITY AND REACTIVITY

Reactivity	Incompatible with oxidising agents, heat and ignition sources.
Decomposition Products	None

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m ³	4 hours
	LD50 Oral	Rat	7 g/kg	



Irritation/Corrosion

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.

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

Ecotoxicity

No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ Ingredient Name	Result	Species	Exposure
Ethanol	Acute EC50 17.921 mg/L Marine water	Algae – Ulva pertusa	96 hours
	Acute EC50 2000 ug/L Fresh water	Daphnia – Daphnia magna	48 hours
	Acute LC50 25500 ug/L Marine water	Crustaceans – Artemia	48 hours
		Franchiscana – Larvae	
	Acute LC50 42000 ug/L Fresh water	Fish – Oncorhynchus mykiss	4 days
	Chronic NOEC 0.375 ul/L Fresh water	Fish – Gambusia holbrooki – Larvae – 3 days	12 weeks

Other ecological information

Product/ Ingredient Name	LogP ow	BCF	Potential
Ethanol	-0.32	--	low

Other adverse 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

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

	Shipping Name	UN No	Packing Group	DG Class	Subsidiary Risk(s)	Hazchem
Land	Ethanol Solution	1170	III	3	None Allocated	2Y
Sea	Ethanol Solution	1170	III	3	None Allocated	2Y
Air	Ethanol Solution	1170	III	3	None Allocated	

15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons

Australia inventory (AICS)	All components are listed or exempted
New Zealand Inventory of Chemicals (NZIoC)	All components are listed or exempted
HSNO Group Standard	HSR 002552 Cosmetic Products
Location Certificate Required	≥ 100L (>5L), 250L (<5L), 50L open
Approved Handler Requirement	≥250L if containers ≥ 5L ≥500L if containers ≤ 5L
Signage	250L
Tracking	Not required
Emergency Response Plan/Secondary Containment	1000L

16. OTHER INFORMATION

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.

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). 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/m ³ - Milligrams per cubic metre ppm –Parts Per Million M - moles per litre, a unit of measure of concentration. 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. TWA/ES - Time Weighted Average or Exposure Standard. 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



SAFETY DATA SHEET
MAC ARANDELL HAND SANITISER –
70% ETHANOL
Public Health Hand Sanitiser

hazards are described herein, we cannot guarantee that these are the only hazards that exist.