



1. IDENTIFICATION OF THE MATERIAL AND THE MANUFACTURER

Product Name	MAC CHAIN & GEAR SPRAY LUBRICANT 500ml Premium Chain & Gear Lubricant Aerosol All formats: 500ml Aerosol		
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		
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 Chain & Gear Spray Lubricant 500ml		
Use(s)	Use all on all chain operations, wire ropes, fork hoists, open gears, hoists, rails/skids, couplings, door drives etc. Penetrating quickly leaving a non-drying waterproof lubricating film. Light foaming action enhances penetration deep between wire strands, chain links, pins, rollers and sprockets. Reduces friction, corrosion, and wear. Excellent adhesion (wont' sling off) withstands high pressure and shock load conditions. Resistant to salt water, steam, water and heat. Easy targeted application with 360° spray anyway valve and extension tube.		
Approval(s)	Ministry of Primary Industries approved C12 (all meat products including dairy) AsureQuality approved		

2. HAZARDS IDENTIFICATION

AEROSOL -CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO NZS 5433:2007 TRANSPORT OF DANGEROUS GOODS ON LAND. CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA IN THE HS (MINIMUM DEGREES OF HAZARD) REGULATIONS 2001.

UN Number	1950	Dangerous Goods Risks
DG Class	2.1.2A 2Y	Contains gas under pressure; may explode if heated Contains refrigerated gas; may cause cryogenic burns or injury.
HAZARD STATEMENT	223	Flammable aerosols
PRECAUTIONARY	P210	Keep away from heat/sparks/open flame/hot surfaces



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Premium Chain & Gear Lubricant Aerosol

STATEMENTS	P211	Do not spray on an open flame, or other ignition source.
	P251	Pressurized container. Do not pierce or burn even after use
	P403	Store in a well ventilated place.
	P410	Protect from direct sunlight
	P412	Do not expose to temperatures exceeding 50°C/122°F

3. HAZARDS IDENTIFICATION COMPOSITION OF INGREDIENTS

Hazardous Ingredients	CAS Number	Proportion, %	WES TWA, mg/m ³
Heptanes (Paraffinic HC Solvent)	64742-89-8	10 - 30	1600 (Supplier)
Butane	106-97-8	10 - 30	1900
Propane	74-98-6	10 - 30	Simple Asphyxiant
Non Hazardous ingredients		10 - 30	

4. FIRST AID MEASURES

Inhalation	Remove victim from area of exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discoloration of the skin (which suggests a lack of oxygen in the blood – cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.
Skin Contact	If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical help.
Eye Contact	If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.
Ingestion	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice.
Medical attention and special treatment	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazards from combustion products	Flammable gas. On burning will emit toxic fumes, including those of oxides of carbon.
Precautions of fire fighters and special protective equipment	Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire. Keep containers cool with water spray. Fire fighters to wear self-contained, breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.



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

Suitable Extinguishing Media Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

HazChem 2YE

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures Shut off all possible sources of ignition. Clear area of all unprotected personnel.

Methods of materials for containment and clean up In the event of an aerosol can developing a leak, allow to fully discharge in the open air before disposal.

7. HANDLING AND STORAGE

Precautions for safe handling Avoid skin and eye contact and breathing in vapour, mists, and aerosols. Ensure spray nozzle is always directed away from the user. May form flammable vapour mixtures with air. All potential sources of ignition (open flames), pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke. Vapour may travel a considerable distance to source of ignition and flash back.

Conditions of Storage Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Store away from oxidising agents. Keep containers closed when not in use – check regularly for leaks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits No value assigned for this specific material by the New Zealand Occupational Safety and Health Services (OSH). However, Workplace Exposure Standard(s) for constituent(s):

Butane: WES-TWA 800 ppm, 1,900 mg/m³

Propane: Simple asphyxiant-may present an explosion hazard.

As published by the New Zealand Occupational Safety and Health Services (OSH).

No Exposure Standards assigned to other constituents.

WES-TWA (Workplace Exposure Standard – Time Weighted Average) – The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure. Asphyxiant -gases which can lead to reduction oxygen concentration by displacement or dilution. The minimum oxygen content in air should be 18% by volume under normal atmospheric pressure.

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.

Engineering Controls

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Use in well ventilated areas. Keep containers closed when not in use. An asphyxiant gas which can lead to the displacement of dilution of oxygen. The minimum oxygen content in air should be 18% by volume under normal atmospheric pressure.

Personal Protection Equipment

The selection of PPE is dependant on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. Wear clean overalls, safety boots, general purpose gloves (PVC) and safety spectacles. Always wash hands before smoking, eating, drinking, or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. For leaking aerosol cans: Wear clean overalls, safety boots, general purpose gloves (PVC) and full face visor. If risk of inhalation exists, wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

FOR CONSUMER USE: Wear rubber gloves and eye protection while handling the product. Wash hands after use.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	AMBER LIQUID SPRAY	Solubility (water)	INSOLUBLE
Odour	NOT AVAILABLE	Specific Gravity	NOT AVAILBLE
pH	NOT AVAILABLE	% Volatiles	NOT AVAILBLE
Vapour Pressure	NOT AVAILABLE	Flammability	HIGHLY FLAMMABLE
Vapour Density	> 1 (Air = 1)	Flash Point	< 0 (HYDROCARBON PROPELLANT)
Melting Point	NOT AVAILABLE	Upper Explosion Limit	NOT AVAILABLE
Boiling Point	NO SPECIFIC DATA. LIQUID AT NORMAL TEMPERATURE.	Lower Explosion Limit	NOT AVAILABLE
Evaporation Rate	NOT AVAILABLE	Auto-ignition Temperature	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions of use.



Conditions to avoid	Avoid exposure to heat, sources of ignition, and open flame.
Incompatible materials	Incompatible with oxidising agents.
Hazardous decomposition products	Oxides of carbon.
Hazardous reactions	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

No Adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion	Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs. Breathing in vomit may lead to aspiration pneumonia (inflammation of the lung).
Eye Contact	May be an eye irritant.
Skin Contact	Contact with the skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.
Inhalation	Breathing in vapour may can result in in headaches, dizziness, drowsiness, and impossible nausea. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgment and if exposure is prolonged, unconsciousness. Intentional misuse by deliberately concentrating and breathing the contents can be harmful or fatal.
Long Term Effect	No information available for the product.
Toxicological Data	No LD50 data available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Avoid contaminating waterways.
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13. DISPOSAL CONSIDERATIONS

Disposal Methods	Refer to Waste Management Authority. Advise flammable nature. Do not puncture or burn can even when empty; contents are under pressure. If aerosol can develop a leak, allow to fully discharge before disposal. Normally suitable for disposal at approved land waste site.
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Legislation Dispose of in accordance with relevant, local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG AND HZNO CODES.

	Shipping Name	UN No	Packing Group	DG Class	Subsidiary Risk(s)	EPG
Land	Compressed Gas	1950	None	2.1	None Allocated	2C1
	Flammable Aerosol		Allocated			
Sea	Compressed Gas	1950	III	2.1	None Allocated	2C1
	Flammable Aerosol					

Shipping Label



15. REGULATORY INFORMATION

Poison Schedule AICS A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
All chemicals listed on the Australian Inventory of Chemical Substances (AICS).
Approved pursuant to the HSNO Act 1996,
Approval No. HSR0002515

Subclasses
Subclass 2.1.2 Category A – Flammable Aerosols
Subclass 6.1 Category E – Substances which are acutely toxic.
Subclass 6.3 Category B – Substances that are mildly irritating to the skin.
Subclass 9.1 Category B – Substances that are ecotoxic in the aquatic environment.
Aerosols (Flammable) Group Standard 2006 HSR002515

16. OTHER INFORMATION

For further copies of this sheet or other product information contact Arandee Ltd.

Reason(s) for Issue Revised Primary MSDS
Change to Poisons Requirements
This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Arandee Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact their



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Arandee representative or Arandee Limited at the contact details on page 1. Arandee Limited's responsibility for the material as sold is subject to the terms and conditions of sale.

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	<p>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).</p> <p>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.</p>
Abbreviations	<p>Mg/m³ - Milligrams per cubic metre</p> <p>ppm - Parts Per Million</p> <p>M - moles per litre, a unit of measure of concentration.</p> <p>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.</p> <p>TWA/ES - Time Weighted Average or Exposure Standard.</p> <p>CAS# - Chemical Abstract Service number - uniquely identifies chemical compounds.</p> <p>CNS - Central Nervous System</p> <p>NOS - Not Otherwise Specified</p> <p>IARC - International Agency for Research on Cancer.</p>
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	<p>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.</p> <p>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.</p>