1. IDENTIFICATION OF THE MATERIAL AND THE MANUFACTURER

Product Name	**MAC SLAY NATURAL PYRETHRIN INSECTICIDE** The forms of automatic dispenser refill and multishot aerosols (80ml – 600ml)
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 13 11 26
E-mail	sales@arandee.co.nz — New Zealand 0800 POISON 0800 764 766
Website	http://www.arandee.co.nz
Synonym(s)	MAC Slay, MAC Slay Natural, SLAYNA2A, SLAYNA3A, SLAYNA4A, SLAYNA5D
Use(s)	Formulated with pyrethrum, a natural pyrethrin extracted from Chrysanthemum Daisies. Flushes and repels unwanted insects. Causes a phototropic response.

2. HAZARD(S) 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**

Physical Hazard	Aerosol: Category 1
Health Hazards	NA
Environmental Hazards	Aquatic acute: Category 1 Aquatic chronic: Category 1 Hazardous to terrestrial invertebrates

GHS Classification and Category	**Code**	**Statement**
Hazard Code	H317	May cause allergic skin reaction
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
	H371	May cause damage to organs
	H373	May cause damage to organs through prolonged or repeated exposure.
	H410	Very toxic to aquatic life with long lasting effects
	H441	Very toxic to terrestrial invertebrates
	H400	Very toxic to aquatic life.
	H410	Very toxic to aquatic life with long lasting effects
	H441	Hazardous to terrestrial invertebrates.
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 ignition sources. No smoking.
	P211	Do not spray on an open flame or other ignition source.
	P251	Do not pierce or burn, even after use.
	P260	Do not breathe spray.

	P261	Avoid breathing spray.
	P264	Wash hands thoroughly after handling.
	P272	Contaminated work clothing should not be allowed of the workplace.
	P273	Avoid release to the environment.
	P280	Wear eye protection.
	P280	Wear protective gloves.
Response Code	P101	If medical advice is needed, have product container or label at hand.
	P302+P352	IF ON SKIN: Wash with plenty of water.
	P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P314	Get medical advice/attention if you feel unwell.
	P321	Specific treatment
	P333+P313	If Skin irritation or rash occurs: Get medical advice/attention.
	P337	If eye irritation persists: Get medical advice/attention.
	P342+P311	If experiencing respiratory symptoms: Call a doctor or POISON CENTER
	P362+P364	Take off contaminated clothing and wash it before reuse.
	P391	Collect spillage.
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 regulations.

3. HAZARD(S) IDENTIFICATION COMPOSITION OF INGREDIENTS

Name	% Weight	CAS Number
HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS	10-40	64742-48-9
PIPERONYL BUTOXIDE	1-5	51-03-6
PYRETHRUM	0.05-1	8003-34-7
INGREDIENTS DETERMINED NOT TO BE HAZARDOUS	BALANCE	

4. FIRST AID MEASURES

If in Eyes Rinse cautiously with water for 15 minutes. If eye irritation persists: Get medical advice.

If on Skin Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.

If Swallowed Do not induce vomiting. Wash out mouth thorough with water. Never give anything to the mouth of unconscious person. Seek medical attention if needed.

If Inhaled Remove person to fresh air. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Notes to Doctor Treat symptomatically

5. FIRE FIGHTING MEASURES

Hazard Type Extremely flammable aerosol. Vapours may form explosive mixtures with air.

Hazards from combustion products 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°C.

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

Precautions for firefighters and special protective clothing 2YE

6. ACCIDENTAL RELEASE MEASURES

For emergency responders Wear protective equipment as detailed in Section 8. Where inhalation risks exist, wear a Type A-Class P1 (Organic vapour and Particulate) respirator. If large quantities of cans are punctured (bulk), clear area of all unprotected personnel and ventilate area.

Environmental precautions Keep product away from drains, surface and underground water.

Method and material for containment and cleaning up 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. For any concern related to disposal consult section 13.

7. HANDLING AND STORAGE

Precautions for Handling

Read carefully and follow all instructions.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Avoid release to the environment (if this is not the intended use).
Use safe work practices to avoid eye or skin contact and inhalation.
Observe good personal hygiene, including washing hands before eating.
DO NOT puncture aerosol cans or incinerate, even when empty.

Precautions for Storage

Keep out of the reach of children.
Do not expose to temperatures exceeding 50°C.
Protect from sunlight.
Store in a cool, dry well-ventilated area, well away from oxidising agents, acids, alkalis.
Ensure containers are adequately labelled, protected from physical damage, and sealed when not in use.
Check regularly for leaks and spills.
Large storage areas should have appropriate fire protection.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Source	Ingredient	Material Name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	Hydrocarbons, C11-C13 isoalkanes, <2% aromatics	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	(om) – Sampled by a method that does not collect vapour.
New Zealand Workplace Exposure Standards (WES)	Pyrethrum	Pyrethrum	5 mg/m3	Not Available	Not Available	(sen) –

EMERGENCY LIMITS

Ingredient	Material Name	TEEL-1	TEEL-2	TEEL-3
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	Naphtha, hydrotreated heavy; (Isopar L-rev 2)	350 gm/m3	1,800 mg/m3	40.000 mg/m3
piperonyl butoxide	Piperonyl butoxide	6.5 m3/m3	72 mg/m3	1,200 mg/m3

Ingredient	Original IDLH	Revised IDLH
Hydrocarbons, C11-C13 isoalkanes, <2% aromatics	2,500 mg/m3	Not Available
Piperonyl butoxide	Not Available	Not Available
Pyrethrum	5,000 mg/m3	Not Available

Engineering Controls 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



Eyes No personal protective equipment is required for normally use. In bulk or industrial setting wear splash-proof goggles or safety glasses.

Skin No personal protective equipment is required for normally use. In bulk or industrial setting wear PVC or rubber gloves.

Respiratory No personal protective equipment is required, normally. When an inhalation risk exist wear a Type A-Class P1 (Organic vapour and Particulate) Respirator.

General

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	AEROSOL GAS	**Vapour Density**	-1 (AIR=1)
Colour	COLOURLESS	**Vapour Pressure**	NOT AVAILABLE
Odour	SLIGHT, ETHERAL-LIKE	**Upper and Lower Explosion Limit**	NOT AVAILABLE
Odour Threshold	NOT AVAILABLE	**Specific Gravity**	0.80-0.82 g/ml
pH	NOT AVAILABLE	**Water Solubility**	DISPERSABLE
Boiling Point	NOT AVAILABLE	**Partition Coefficient**	NOT AVAILABLE
Melting Point	NOT AVAILABLE	**Auto-igntion**	NOT AVAILABLE
Freezing Point	NOT AVAIALBLE	**Decomposition Temperature**	NOT AVAILABLE
Flash Point	<20°C (PROPELLENT)	**Kinematic Viscosity**	NOT AVAILABLE
Flammability	HIGHLY FLAMMABLE	**% Volatiles**	100%

10. STABILITY AND REACTIVITY

Stability of Substance This product is stable under normal conditions.

Possibility of hazardous reactions No data available.

Conditions to Avoid Heat and ignition sources.

Incompatible Materials Incompatible with oxidising agents (e.g., hypochlorite), alkalis, / alkali earth metals and finely divided metal powders (e.g., aluminium, barium, lithium).

Hazardous Decomposition Products May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition temperatures.

11. TOXICOLOGICAL INFORMATION

Health 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. 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.

Acute Effects

Swallowed This product is not classified as acutely toxic. Exposure considered unlikely due to product from as an aerosol. Under normal conditions of use, ingestion is considered a highly unlikely, exposure route. LD50 = > 5000mg/kg, Rat

Dermal This product is not classified as acutely toxic.

Inhalation	This product is not classified as acutely toxic. 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.
Eye	This product is not classified an eye irritant/corrosive. Low irritant. Contact may result in lacrimation, pain, redness and conjunctivitis. Prolonged contact may result in corneal burns, with possible permanent damage.
Skin	This product is not classified as a skin irritant/corrosive. Low irritant. Prolonged contact may result in irritation, redness, rash, dermatitis and sensitisation.
Chronic Effects	
Carcinogenicity	This product is not classified as carcinogenic.
Reproductive Toxicity	This product is not classified as toxic for reproduction.
Germ Cell Mutagenicity	This product is not classified as mutagenic.
Aspiration	This product is not classified as Asp Tox.
STOT/SE	This product is not classified as STOT SE.
STOT/RE	This product is not classified as STOT RE.

12. ECOLOGICAL INFORMATION

Very toxic to aquatic life with long lasting effects. Hazardous to terrestrial invertebrates.

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.

Product

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

13. DISPOSAL CONSIDERATIONS

Disposal Method	For small amounts, absorb contents with sand or similar and dispose of to an approved landfill site. Ensure any container holding waste product or contaminated spill media is labelled “Hazardous Waste – Flammable, Exotoxic” and that the label also has the Flammable, Ecotoxic Pictogram, waste type identifier, and the business name, address, and the phone number.
Legislation	Dispose of in accordance with relevant, local legislation.
Precautions or methods to avoid	Avoid release to the environment. DO NOT puncture or incinerate aerosol cans.

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 (HZNO)	AEROSOLS	1950	None Allocated	2.1	None Allocated	
SEA TRANSPORT (IMDG/IMO)	AEROSOSLS	1950	III	2.1	None Allocated	
AIR TRANSPORT IATA/ICAO)	AEROSOLS	1950	None Allocated	2.1	None Allocated	

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

Shipping Label



Special Precautions **Hazchem code: 2YE**

15. REGULATORY INFORMATION

This substance is classified as hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

MPI	Type A (All animal products excluding dairy)
NZEPA	Approved pursuant to the HSNO Act 1996, Approval No. HSR101271
HSW (HS) Regulations 2017 and EPA Notices	**Trigger Quantity**
Certified Handler	No
Location Certificate	3000L (AWC)
Tracking Trigger Quantities	Not required.
Signage Trigger Quantities	100L
Emergency Response Plan	100L
Secondary Containment	100L
Restriction of Use	Only use for the intended purpose. Refer to EPA website for full controls document.

16. OTHER INFORMATION

CAS #	Chemical Abstract Service number – uniquely identifies chemical compounds.
EC50	Environmental Exposure Limit.
EEL	Environmental Protection Authority.
EPA	Hazardous Substances and New Organisms.
HSNO	Health and Safety at Work.
HSW	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LC50	Lethal dose to kill 50% of test animals/organisms.
LD50	Lower explosive level.
LEL	No Observed Effect Concentration.
NOEC	No Observed Adverse Effect Level.
NOAEL	American Occupational Safety and Health Administration.
OSHA	Tolerable Exposure Limit.
TEL	Time Weighted Average.
TWA	Threshold Limit Value-an exposure limit set by responsible authority.
TLV	Upper Explosive Level.
UEL	Workplace Exposure Limit.
WES	Chemical Abstract Service number – uniquely identifies chemical compounds.

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 an 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.