SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**Aphidex WG**
Product Use:	Insecticide
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	ADAMA New Zealand Ltd
Address:	Level 1/93 Bolt Road Tahunanui, Nelson
Telephone:	+64 3 543 8275
Fax Number:	+64 3 543 8274
Emergency Telephone:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	5 May 2021

Section 2. Hazards Identification

This substance is hazardous according to the *Hazardous Substances (Classification) Notice 2020*

EPA Approval No: HSR000704

Pictograms

Acute Toxic Chronic Toxic Ecotoxic

Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 3	H301	Toxic if swallowed.
Acute inhalation toxicity Cat. 4	H332	Harmful if inhaled.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Cat. 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates	H431	Hazardous to terrestrial vertebrates
Hazardous to terrestrial invertebrates	H442	Hazardous to terrestrial invertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes, vapours or spray.

P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.

Response Code	**Response Statement**
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position 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.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	**Storage Statement**
P405	Store locked up.

Disposal Code	**Disposal Statement**
P501	Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Pirimicarb	50	23103-98-2
Sodium; 1,2-bis-(2-ethylhexyloxycarbonyl) ethanesulfonate	>= 1 - < 3	577-11-7
Talc	>= 20 - < 30	14807-96-6
Other ingredients determined not to be hazardous	to 100%	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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 — Wash out mouth thoroughly with water. DO NOT induce vomiting. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Immediately call a POISON CENTER or doctor/physician.

If Inhaled — Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position

and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: Poisoning produces effects associated with anticholinesterase activity which may include:
Nausea
Diarrhoea
Vomiting

Inhaled: Harmful if inhaled.

Ingestion: Toxic if swallowed.

Skin: Not applicable.

Eyes: Causes eye irritation.

Chronic: May cause neurotoxicity (nervous system) damage from repeated oral exposure at high doses.

Treatment: Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube). Administer atropine sulphate as antidote. Since there is no therapeutic effect, the use of oxime preparations (or other cholinesterase reactivators) is contraindicated.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable.
Hazards from combustion products	Fire will spread by burning with a visible flame. As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10) Exposure to decomposition products may be a hazard to health.
Suitable Extinguishing media	SMALL FIRE: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. LARGE FIRE: Alcohol resistant foam or water spray. Do not use a solid water stream as it may scatter and spread fire.
Precautions for firefighters and special protective clothing	Wear full protective clothing and self-contained breathing apparatus. Do not allow run-off from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.
HAZCHEM CODE	**2X**

Section 6. Accidental Release Measures

Wear full protective clothing as detailed in Section 8. Evacuate area from unnecessary personnel. Avoid dust formation.

Environmental precautions

Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and material for containment and cleaning up

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air. Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Do not breathe fumes, vapours or spray.
- Wash hands thoroughly after handling.

- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion.
- Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material.
- Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.
- This material can become readily charged in most operations.
- Avoid contact with skin and eyes.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Store locked up.
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep away from food, drink and animal feedingstuffs.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3
Talc (containing no asbestos fibres) [14807-96-6]	-	2	-	-

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

Engineering Controls

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

Personal Protection Equipment

Eyes	Tightly fitting safety goggles. Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.
Hands and Skin	Impervious, such as nitrile rubber. Breakthrough time: >480min Glove thickness: 0.5mm Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Remove and wash contaminated clothing before re-use. Wear as appropriate: Dust impervious protective suit.
Respiratory	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Suitable respiratory equipment:

	Respirator with a half face mask The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Filter type: Particulates type (P)

Section 9 Physical and Chemical Properties

Appearance	Granules
Colour	Blue green to green
Odour	Weak
Odour Threshold	Not applicable
pH	7 - 11, concentration: 1% w/v
Boiling Point	89°C
Melting Point	Not applicable
Flash Point	Not applicable
Flammability	Not classified as a flammability hazard
Upper and Lower Exposure Limits	Not applicable
Burning number:	5 (20 °C) 5 (100 °C)
Vapour Pressure	Not applicable
Vapour Density (air=1)	Not available.
Density	1.035 g/cm^3 (20°C)
Bulk Density	0.4 - 0.6 g/cm^3
Solubilities	Soluble in water
Partition coefficient (n-octanol/water):	Not available.
Auto Flammability	245°C
Viscosity - dynamic:	Solid – not relevant
Surface tension:	Solid – not relevant
Minimum ignition energy:	>1,000 mJ

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	None known.
Incompatible Materials	No substances are known which lead to the formation of hazardous substances or thermal reactions
Hazardous Decomposition Products	Combustion or thermal decomposition will evolve toxic and irritant vapours. Carbon monoxide Carbon dioxide (CO2) Nitrogen oxides (NOx) Sulphur oxides

Section 11 Toxicological Information

Acute Effects:

Swallowed	Toxic if swallowed. LD50 = 87 mg/kg (rat, male and female)
Dermal	Not triggered. LD50>2000 mg/kg (rat, male and female)
Inhalation	Harmful if inhaled. LC50 (4 h) 1.41 mg/L (rat, male and female)
Eye	Causes severe eye irritation.
Skin	Not applicable

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause neurotoxicity (nervous system) damage from repeated oral exposure at high doses.

Section 12. Ecotoxicological Information

GHS Classes	**Hazard Statement**
Hazardous to the aquatic environment chronic Cat. 1	Very toxic to aquatic life with long lasting effects.
Hazardous to terrestrial vertebrates	Hazardous to terrestrial vertebrates
Hazardous to terrestrial invertebrates	Hazardous to terrestrial invertebrates

Product:	
Persistence and degradability	Biodegradable Degradation half-life: 36 – 55 d Not persistent in water.
Bioaccumulation	Does not bioaccumulate.
Mobility in Soil **Stability in Soil**	Moderately mobile in soils DT50: 29 - 365 d Percentage dissipation: 50% Not persistent in soil.
Other adverse effects	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Ecotoxicity:

Acute toxicity to fish: LC50 (96 h) = 78 mg/L (*Lepomis macrochirus* (Bluegill sunfish)) (similar product)

Toxicity to daphnia and other aquatic invertebrates: EC50 (48h) = 0.046 mg/L (*Daphnia magna* (water flea)) (product)

Toxicity to algae: ErC50 (96 h) = 180 mg/L (*Pseudokirchneriella subcapitata* (Freshwater green algae)) (active ingredient)

Toxicity to Birds: LD50 = 25-50 mg/kg (Poultry) (active ingredient)
LD50 = 28.5 mg/kg (mallard ducks) (active ingredient) LD50 = 20.9 mg/kg (bobwhite quail) (active ingredient)

Toxicity to soil dwelling organisms: LC50 (14 days) = >60 mg/kg (earthworms) (active ingredient)

Toxicity to Bees: LD50 (oral) = 4 µg/bee (active ingredient)
LD50 (contact) = 53 µg/bee (active ingredient)

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: DO NOT contaminate ponds, waterways or ditches with chemical or used containers. DO NOT dispose of waste into sewer. Dispose of this product only by using according to the label. Otherwise, dispose of waste at an approved landfill or other approved

facility that will ensure the substance does not exceed the tolerable exposure limit (TEL) or environmental exposure limit (EEL), where relevant, or will treat the substance so that it is rendered no longer hazardous.

Disposal methods to avoid: Do not allow product to enter waterways.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012

UN No	2757
Class - Primary	6.1
Packing Group	III
Proper Shipping Name	CARBAMATE PESTICIDE, SOLID, TOXIC, N.O.S.(Pirimicarb)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

This substance is hazardous according to the *Hazardous Substances (Classification) Notice 2020*

EPA Approval Code: HSR000704

GHS Classification:

Acute inhalation toxicity Cat. 3
Acute inhalation toxicity Category 4
Eye irritation Category 2
Specific target organ toxicity – repeated exposure Cat. 2
Hazardous to the aquatic environment chronic Cat. 1
Hazardous to terrestrial invertebrates
Hazardous to terrestrial vertebrates

HSW (HS) Regulations 2017	**Trigger Quantity**
Certified Handlers	Not required
Location Certificate	1000kg - Acute inhalation toxicity Cat. 3
Signage Trigger Quantities (Schedule 3)	100kg (Hazardous to the aquatic environment chronic Cat. 1)
Emergency Response Plan (Schedule 5)	100kg (Hazardous to the aquatic environment chronic Cat. 1)
Secondary Containment (Schedule 5)	100kg (Hazardous to the aquatic environment chronic Cat. 1)
Tracking (Schedule 26)	Not required
HSNO Additional Controls (Restrictions of use)	
	Please refer to controls documents on www.epa.govt.nz – HSR000704 for ALL controls.
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate

HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 2	Certain substances restricted to workplaces only.
HPC Notice Part 3	Hazardous substances in a place other than a workplace.
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart C	Qualifications required for application of class 9 pesticides
ACVM Act and Regulations	
ACVM Approval No	P9849
See www.foodsafety.govt.nz for registration conditions.	

Section 16 Other Information

Glossary

Cat	Category
EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC50	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2020
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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