

# MATERIAL SAFETY DATA SHEET

## SECTION 1

## IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Abamectin 18 Miticide/Insecticide**

**Other Names:** Chloride channel activator, Group 6 Insecticide.  
**Use:** A liquid agricultural insecticide and miticide.  
**Company:** Apparent Pty Ltd  
**Address:** Suite G.08, 762 Toorak Road, Glen Iris, Vic.  
PO Box 3092, Cotham PO, Kew, Vic 3101  
**ACN/ABN:** 143 724 136  
**Telephone Number:** 03 9822 1321  
**Fax Number:** 03 9817 7845  
**Emergency Contact:** 0411 227 338  
**Email:** [wardell@bigpond.net.au](mailto:wardell@bigpond.net.au)

## SECTION 2

## HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.  
Classified as a Dangerous Good according to the ADG Code.  
Combustible Liquid (C1).**

**Risk phrases:** R20 Harmful by inhalation.  
R22 Harmful if swallowed.  
R36/38 Irritating to eyes and skin.  
R38 Irritating to skin.

**Safety Phrases:** S2 Keep out of reach of children.  
S13 Keep away from food, drink and animal feedstuffs.  
S23 Do not breathe vapour or spray.  
S24/25 Avoid contact with skin and eyes.  
S36/37 Wear suitable protective clothing and gloves.  
S39 Wear eye/face protection.

## SECTION 3

## COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients:

<b>CHEMICAL</b>	<b>CAS NUMBER</b>	<b>PROPORTION</b>
Abamectin	71751-41-2	18 g/L
Methyl pyrrolidone	872-50-4	350 g/L
Other ingredients determined not to be hazardous		Balance

## SECTION 4

## FIRST AID MEASURES

### FIRST AID

**Ingestion:** If swallowed do NOT induce vomiting. Wash mouth with water and give water to drink. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 131 126.

**Eye contact:** Immediately hold eyes open and flood gently with clean water until product is washed from eyes. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation persists, seek medical advice.

**Skin contact:** Remove contaminated clothing. Wash skin with soap and water to remove chemical. If skin is irritated, seek medical advice. Launder contaminated clothing before re-use.

**SECTION 4****FIRST AID MEASURES (Continued)**

**Inhalation:** Remove to fresh air and observe until recovered. If irritation or symptoms persists more than about 30 minutes, seek medical advice.

**Advice to Doctor:** Treat symptomatically. No specific antidote is available.

**SECTION 5****FIRE FIGHTING MEASURES**

**Extinguishing media:** Combustible liquid (C1). Flash point ~ 70°C. Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.

**Hazards from combustion products:** Sealed, overheated containers may violently rupture. Thermal decomposition and burning will produce toxic by-products (eg. oxides of carbon and nitrogen compounds). Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.

**Precautions for fire-fighters and special protective equipment:** Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

**SECTION 6****ACCIDENTAL RELEASE MEASURES****Emergency procedures / Material and methods for containment and cleanup procedures:**

Extinguish all sources of ignition. Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves, goggles and half facepiece respirator with dust cartridge or canister to prevent skin/eye contamination. In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons.

This product is an insecticide. Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage. If a significant quantity of material enters drains, advise emergency services.

**SECTION 7****HANDLING AND STORAGE**

**Precautions for Safe Handling:** No smoking, eating or drinking should be allowed where material is used or stored. Keep out of reach of children. Do not store for prolonged periods in direct sunlight. Poisonous if absorbed by skin contact or swallowed. Will damage eyes. Will irritate the skin. Avoid contact with eyes and skin. Do not inhale spray mist. When opening the container, preparing spray and using prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves and goggles. For space applications, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves, goggles and half facepiece respirator with dust cartridge or canister. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles, contaminated clothing and respirator (and if rubber, wash with detergent and warm water).

**Conditions for Safe Storage:** Apparent Abamectin is classified as Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail. This product is a Schedule 6 Poison (S6) and must be stored in accordance with the relevant Health Department regulations. Product is a combustible liquid (C1) and must be stored away from naked lights, heat sources and oxidising agents. Observe procedures detailed in Australian Standard AS1940-1988 for flammable and combustible liquids.

Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight.

**SECTION 8****EXPOSURE CONTROLS / PERSONAL PROTECTION****Exposure Guidelines:**

Exposure guidelines have not been established for this product by Safe Work Australia. However the following standard applies to one of the ingredients (methyl pyrrolidone) in this product:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m <sup>3</sup> )
Methyl pyrrolidone	103 mg/m <sup>3</sup> (25 ppm)	309 mg/m <sup>3</sup> (75 ppm)

TWA = Time-weight Average. STEL = Short Term Exposure Level.

**Biological Limit Values:**

No biological limit allocated.

**Engineering controls:**

Use in ventilated areas adequate to keep exposure below the TWA. Keep containers closed when not in use.

**Personal Protective equipment (PPE):**

**General:** When opening the container, preparing spray and using prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves and goggles. For space applications, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves, goggles and half facepiece respirator with dust cartridge or canister. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, goggles, contaminated clothing and respirator (and if rubber, wash with detergent and warm water).

**Personal Hygiene:** Wash skin before eating, drinking or smoking. Shower at the end of the workday.

**SECTION 9****PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Clear colourless to pale yellow coloured liquid.
<b>Odour:</b>	Characteristic solvent odour.
<b>Boiling point:</b>	No data.
<b>Freezing point:</b>	No data.
<b>Specific Gravity:</b>	Approximately 1.0.
<b>Solubility in Water:</b>	Emulsifies in water.
<b>pH:</b>	No data available.
<b>Flammability:</b>	Combustible liquid (C1).
<b>Corrosive hazard:</b>	Not corrosive.
<b>Flashpoint (°C):</b>	~ 70°C.
<b>Poisons Schedule:</b>	S6.

**SECTION 10****STABILITY AND REACTIVITY**

**Chemical Stability:** Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

**Conditions to avoid:** Store away from sources of ignition. Do not store for prolonged periods in direct sunlight. Avoid oxidizing materials.

**Incompatible materials:** Oxidizing agents.

**Hazardous decomposition products:** When involved in a fire will emit toxic and noxious decomposition products/fumes (eg. oxides of carbon and nitrogen compounds).

**Hazardous reactions:** None known. Will not polymerise.

**SECTION 11****TOXICOLOGICAL INFORMATION**

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure. This formulation contains aromatic hydrocarbons.

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**SECTION 11 TOXICOLOGICAL INFORMATION (Continued)****Potential Health Effects:****ACUTE EFFECTS**

**Swallowed:** Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual. There have been several reports of acute human exposure incidents with abamectin containing formulations. Abamectin is a mixture of avermectins. Clinical symptoms of severe abamectin intoxication include mydriasis, sedation, emesis, tremors, convulsions, coma and death. This product is harmful if swallowed. The estimated Acute Oral LD<sub>50</sub> (rat) = 300 mg/kg.

**Eye:** This product may cause irritation to the eyes.

**Skin:** This product maybe irritating to the skin and may be sensitising. This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition.

**Inhaled:** Harmful by inhalation. Inhalation of mists or sprays may produce respiratory irritation. The estimated LC<sub>50</sub> is 3.5 mg/L/4 hours.

**Long Term Exposure:** When this product is used according to the directions, prolonged exposure to users is not expected. In a 1 year study with dogs given oral doses of 0.25 to 1 mg/kg/day, there were no changes in tissue at any dose level. However, some dogs at the 0.5 and 1 mg/kg/day levels had papillary dilation, weight loss, lethargy, tremors and recumbency. The NOEL for this study was 0.25 mg/kg/day. Similar results were seen in a 2 year study with rats fed 0.75, 1.5 or 2 mg/kg/day. No changes in the nervous or muscular systems were observed, but rats in all dosage levels exhibited body weight gains significantly higher than the controls. When mice were fed 8 mg/kg/day, the highest dose tested, for 94 weeks, the males developed dermatitis and changes in blood formation in the spleen, while females exhibited tremors and weight loss.

Abamectin has produced cleft palate in the offspring of treated mice and rabbits, but only at doses that were also toxic to the mothers. There were no birth defects in the offspring of rats given up to 1 mg/kg/day.

Abamectin is not mutagenic. Abamectin was not carcinogenic in rats of mice fed the maximum tolerated doses.

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**SECTION 12 ECOLOGICAL INFORMATION**

**Environmental Toxicology:** No information is available for the product. The following information refers to the active ingredient, abamectin. Toxic to waterfowl (Mallard duck LD<sub>50</sub> = 84 mg/kg), but relatively non toxic to upland game birds (Bobwhite quail LD<sub>50</sub> > 2000 mg/kg) Toxic to fish - rainbow trout LD<sub>50</sub> = 3.6 µg/L and bluegill sunfish LD<sub>50</sub> = 9.6 µg/L. Very toxic to *Daphnia magna* LC<sub>50</sub> (48 hour) = 0.34 µg/L. Toxic to bees. DO NOT contaminate streams, rivers or water courses.

**Environmental Fate:** No information is available for the product. The following information refers to the active ingredient, abamectin. Abamectin binds tightly to soil with rapid degradation by soil microorganisms. Does not bioaccumulate.

DO NOT contaminate streams, rivers or waterways with Deltamethrin Duo or the used containers.

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**SECTION 13 DISPOSAL CONSIDERATIONS**

**Spills and Disposal:** Persons involved in cleanup require adequate skin protection - see section 8. In case of spillage, contain and absorb spilled material with absorbent material such as clay, sand or cat litter and dispose of waste as indicated below or in accordance to the Australian Standard 2507- Storage and Handling of Pesticides. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill

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**SECTION 13 DISPOSAL CONSIDERATIONS (Continued)**

area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

**Disposal of empty containers:** Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT cut or burn empty containers or product.

EXPLOSION WARNING: "EMPTY" containers may liquid and/or vapour residue which can be explosive if exposed to an ignition source at temperatures above 90°C. Such conditions may occur during cutting or welding. DO NOT cut or weld these containers

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**SECTION 14 TRANSPORT INFORMATION**

**Transport:** This product is classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods: Class 6.1, with label "Toxic 6", UN No. 2902, Packaging Group III. Proper Shipping Name: PESTICIDES, LIQUID, TOXIC, N.O.S. (Contains Abamectin) Hazchem Code: 2XE.

**Marine and Air Transport:** Classified as a Dangerous Goods: Class 6.1, with label "Toxic 6", UN No. 2902, Packaging Group III. Proper Shipping Name: PESTICIDES, LIQUID, TOXIC, N.O.S. (Contains Abamectin) Hazchem Code: 2XE.

This product is a Schedule 6 Poison (S6) and must be stored in accordance with the relevant Health Department regulations. Product is a combustible liquid (C1) and must be stored away from naked lights, heat sources and oxidising agents. Observe procedures detailed in Australian Standard AS1940-2004 for flammable and combustible liquids.

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**SECTION 15 REGULATORY INFORMATION**

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP) this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 67057.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xn: Harmful, Xi:

This product is classified as a Dangerous Good according to the ADG Code (7<sup>th</sup> Ed).

**Requirements concerning special training:**

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

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**SECTION 16 OTHER INFORMATION**

Issue Date: 18 January 2013. (First issue).

Key to abbreviations and acronyms used in this MSDS:

ADG Code	Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).
Carcinogen	An agent which is responsible for the formation of a cancer.
Genotoxic	Capable of causing damage to genetic material, such as DNA.
HSIS	Hazardous Substances information System.
Lacrimation	The production, secretion, and shedding of tears.
Lavage	A general term referring to cleaning or rinsing.

**SECTION 16 OTHER INFORMATION (Continued)**

Mutagen	An agent capable of producing a mutation.
NOHSC	National Occupational Health and Safety Commission.
OCS	Office of Chemical Safety.
Pneumonitis	A general term that refers to inflammation of lung tissue.
PPE	Personal protective equipment.
Teratogen	An agent capable of causing abnormalities in a developing foetus.
TWA	The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.
Safe Work Australia:	Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

## References

1. "Search Hazardous Substances". HSIS. Safe Work Australia website. (2013).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

*This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.*

*If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.*

End MSDS