

# Safety Data Sheet

Product Name: **Ant Kill RTU**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Address:** Suite 3, 19-23 Clarinda Road, Oakleigh South, Victoria, AUSTRALIA, 3167  
**Telephone:** (03) 9543 5600  
**Fax:** (02) 9543 5300  
**Emergency:** 13 11 26  
**Use(s):** Insecticide to control ants, spiders, cockroaches  
**SDS Date:** 1<sup>st</sup> July 2013

## 2. HAZARDS IDENTIFICATION

**NOT CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA**  
**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

|                  |                |                     |                |                           |                |
|------------------|----------------|---------------------|----------------|---------------------------|----------------|
| <b>UN No.</b>    | None Allocated | <b>DG Class</b>     | None Allocated | <b>Subsidiary Risk(s)</b> | None Allocated |
| <b>Pkg Group</b> | None Allocated | <b>Hazchem Code</b> | None Allocated | <b>EPG</b>                | None Allocated |

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredient                      | CAS No.    | Content |
|---------------------------------|------------|---------|
| PERMETHRIN                      | 52645-53-1 | 3g/L    |
| OTHER NON HAZARDOUS INGREDIENTS | Secret     | <10 g/L |
| WATER                           | 7732-18-5  | To 100% |

## 4. FIRST AID MEASURES

### General Information

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 from anywhere in Australia (0800 764 766) and is available at all times. Have this SDS with you when you call.

### Eye

If in eyes, hold eyelids apart and flush the eye continuously with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

### Inhalation

No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin**

Wash gently and thoroughly with water (Use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

**Ingestion**

If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poison Information Centre on 13 11 26 (Australia wide) or a doctor (at once).

**Advice to Doctor**

Treat symptomatically. Note the nature of this product.

## 5. FIRE FIGHTING MEASURES

**Fire and Explosion Hazard**

There is no risk of explosion from this product under normal circumstances if it is involved in a fire.

**Unusual Fire and Explosion Hazard**

This product is unlikely to decompose at temperatures normally achieved in a fire. Likely to decompose only after heating to dryness followed by further strong heating.

**Decomposition Products**

No decomposition products are expected at temperatures normally achieved in a fire.

**Extinguishing**

This product does not burn. Use extinguishing media suited to the materials that are burning.

**Fire Fighting**

If a significant quantity of this product is involved in a fire, call the fire brigade.

## 6. ACCIDENTAL RELEASE MEASURES

**Accidental Release**

In the event of a major spill, prevent spillage from entering drains or water courses. Wear protective clothing including eye/face protection. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. It should be fitted with a type G cartridge, suitable for agricultural chemicals. Otherwise, not normally necessary. Stop leak if safe to do so and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. Sweep up and shovel or collect coverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal.

## 7. STORAGE AND HANDLING

No special storage and transport requirements. This product has no UN classification. Not a Scheduled Poison. Containers should not be kept closed in order to minimise contamination and make sure that the product does not come into contact with substances listed under "Materials to avoid" below.

**Storage**

Store in cool, dry, well ventilated area, away from direct sunlight and removed from extreme heat and open flames. Ensure that that the product does not come in contact with substances listed under Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging, there may be further storage instructions on the label.

**Handling**

Check section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed under storage above, should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible Materials listed in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Limits**

Exposure limits have not been established by ASCC for any of the significant ingredients in this product. The ADI (Acceptable Daily Intake) for permethrin is set at 0.5mg/kg/day. The corresponding NOEL (No-Observable-effect-level) is set at 5mg/kg/day.

**Engineering Controls**

Use in well ventilated or mechanically exhausted area.

**PPE**

|                                  |                         |
|----------------------------------|-------------------------|
| Respiratory Equipment            | AS/NZS 1715             |
| Protective Gloves                | AS 2161                 |
| Industrial Clothing              | AS 2919                 |
| Industrial Eye Protection        | AS 1336 and AS/NZS 1337 |
| Occupational Protective Footwear | AS/NZS 2210             |

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation**

No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

**Eye Protection**

Eye protection such as protective glasses or goggles is recommended when the product is being used.

**Skin Protection**

If you believe you may have a sensitisation to this product or any of its declared ingredients, you should prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Respirator**

Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                         |                       |                                 |                 |
|-------------------------|-----------------------|---------------------------------|-----------------|
| <b>Appearance</b>       | MILKY COLOURED LIQUID | <b>Solubility (water)</b>       | SOLUBLE         |
| <b>Odour</b>            | MILD ODOUR            | <b>Specific Gravity</b>         | 1.0             |
| <b>pH</b>               | NOT AVAILABLE         | <b>% Volatiles</b>              | WATER COMPONENT |
| <b>Vapour Pressure</b>  | 100°C at 100kPa       | <b>Flammability</b>             | NON FLAMMABLE   |
| <b>Vapour Density</b>   | NOT AVAILABLE         | <b>Flash Point</b>              | DOES NOT BURN   |
| <b>Boiling Point</b>    | 100°C                 | <b>Upper Explosion Limit</b>    | NOT RELEVANT    |
| <b>Melting Point</b>    | NOT AVAILABLE         | <b>Lower Explosion Limit</b>    | NOT RELEVANT    |
| <b>Evaporation Rate</b> | NOT AVAILABLE         | <b>Autoignition Temperature</b> | NOT AVAILABLE   |

## 10. STABILITY AND REACTIVITY

### Reactivity

This product is unlikely to react or decompose under normal storage conditions.

### Material to Avoid

No particular incompatibilities.

### Decomposition

No decomposition products are expected at temperatures normally achieved in a fire.

### Conditions to avoid

Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

### Unusual Fire and Explosion Hazards

This product is unlikely to decompose at temperatures normally achieved in a fire. Likely to decompose only after heating to dryness followed by further strong heating.

### Polymerisation

This product will not undergo polymerisation reactions.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Permethrin is harmful to non harmful via the oral route, with a reported LD50 for technical Permethrin in rats of 430 to 4000mg/kg. Via the dermal route, it is not harmful, with a reported dermal LD50 in rats of over 4000mg/kg, and in rabbits of greater 2000mg/kg. Permethrin caused mild irritation of both the intact and abraded skin of rabbits. It also caused conjunctivitis when it was applied to the eyes. The 4 hour inhalation LC50 for rats was greater than 23.5mg/L, indicating practically no inhalation toxicity. The toxicity of Permethrin is dependent on the ratio of the isomers present; the cis-isomer being more toxic.

### Chronic Toxicity

No adverse health effects were observed in dogs fed Permethrin at doses of 5mg/kg/day for 90 days. Rats fed 150mg/kg/day for 6 months showed a slight increase in liver weights. Very low levels of Permethrin in the diet of chickens (0.1ppm for 3 to 6 weeks after hatching) have been reported to suppress immune system activity.

### Reproductive effects

The fertility of female rats was affected when they received very high oral doses of 250 mg/kg/day of Permethrin during the 6<sup>th</sup> to 15<sup>th</sup> day of pregnancy. It is not likely that reproductive effects will be seen in humans under normal circumstances.

### Teratogenic effects

Permethrin is reported to show no teratogenic activity.

### Mutagenic effects

Permethrin is reported to show no mutagenic activity.

### Carcinogenic effects

The evidence regarding the carcinogenicity of Permethrin is inconclusive.

### Organ toxicity

Permethrin is suspected of causing liver enlargement of the liver and nerve damage. Effects on the immune system have been noted in animal studies.

### Fate in humans and animals

Permethrin is efficiently metabolized by mammalian livers. Breakdown products, or 'metabolites,' of Permethrin are quickly excreted and do not persist significantly in body tissues. When Permethrin is administered orally to rats, it is rapidly metabolized and almost completely eliminated from the body in a few days. Only 3 to 6% of the original dose was excreted unchanged in the faeces of experimental animals. Permethrin may persist in fatty tissues, with half lives of 4 to 5 days in brain and body fat. Permethrin does not block or inhibit, cholinesterase enzymes.

## 12. ECOLOGICAL INFORMATION

Insufficient data to be sure of status.

### Effects on birds

Permethrin is practically non-toxic to birds.

Mallard ducks LD50 >9900 mg/kg Pheasants:LD50 >13500 mg/kg Japanese Quail:LD50 >15500 mg/kg

### Effects on aquatic organisms

Aquatic ecosystems are particularly vulnerable to the impact of Permethrin. A delicate balance exists between the quality and quantity of insects and other invertebrates that serve as fish food.

Rainbow Trout LC50 0.0125 mg/L/24 hours 0.0054 mg/L/48 hours

Bluegill Sunfish/Salmon LC50 0.0018 mg/L/48 hours

As a group, synthetic pyrethroids were toxic to all estuarine species tested. They had a 96 hour LC50 of less than or equal to 0.0078 mg/L for these species. The bioconcentration factor for Permethrin in bluefish is 715 times the concentrations in water and is 703 in catfish. This indicates that the compound has a low to moderate potential to accumulate in these organisms. Acute LC50 (96hr) for rainbow trout: 2.5 µg/L.

### Effects on other organisms

Bees LD50 (24hr) oral 0.098 µg/L Topical: 0.029 µg/bee

Permethrin is also toxic to wildlife. It should not be applied, or allowed to drift, to crops or weeds in which active foraging takes place.

### Breakdown in soil and ground water

Permethrin is of low to moderate persistence in the soil environment, with reported half-lives of 30 to 38 days. Permethrin is readily broken down, or degraded, in most soils except organic types. Soil microorganisms play a large role in the degradation of Permethrin in the soil. The addition of nutrients to soil may increase the degradation of Permethrin. It has been observed that the availability of sodium and phosphorous decreases when Permethrin is added to the soil. Permethrin is tightly bound by soils, especially by organic matter. Very little leaching of Permethrin has been reported. It is not very mobile in a wide range of soil types. Because Permethrin binds very strongly to soil particles and is nearly insoluble in water, it is not expected to leach or to contaminate groundwater.

### Breakdown in water

The results of one study near estuarine areas showed that Permethrin had a half-life of less than 2.5 days. When exposed to sunlight, the half-life was 4.6 days. Permethrin degrades rapidly in water, although it can persist in sediments. There was a gradual loss of toxicity after Permethrin aged for 48 hours in sunlight at 0.05 mg/L in water.

### Breakdown in vegetation

Permethrin is not phytotoxic, or poisonous, to most plants when it is used as directed. Some injury has occurred on certain ornamental plants. No incompatibility has been observed with Permethrin on cultivated plants. Treated apples, grapes and cereal grains contain less than one mg/kg Permethrin at harvest time.

## 13. DISPOSAL CONSIDERATIONS

### Disposal

Dispose of in accordance with relevant local legislation

## 14. TRANSPORT INFORMATION

**NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**No special transport conditions are necessary unless required by other regulations.**

|                      |                |                     |                |                           |                |
|----------------------|----------------|---------------------|----------------|---------------------------|----------------|
| <b>Shipping Name</b> | None Allocated | <b>DG Class</b>     | None Allocated | <b>Subsidiary Risk(s)</b> | None Allocated |
| <b>UN no.</b>        | None Allocated | <b>Hazchem Code</b> | None Allocated | <b>EPG</b>                | None Allocated |
| <b>Pkg Group</b>     | None Allocated |                     |                |                           |                |

## 15. REGULATORY INFORMATION

### AICS

All of the significant ingredients in this formulation are compliant with NICNAS regulations. Permethrin is mentioned in the SUSDP.

## 16. OTHER INFORMATION

### Additional Information

#### ACRONYMS

|                |  |
|----------------|--|
| ADG Code       | Australian Code for the Transport of Dangerous Goods by Road and Rail  |
| AICS           | Australian Inventory of Chemical Substances  |
| ASCC           | Australian Safety And Compensation Council   |
| CAS number     | Chemical Abstracts Service Registry Number   |
| Hazchem Number | Emergency action code of numbers and letters that provide information to emergency services especially fire fighters |
| IARC           | International Agency for Research on Cancer  |
| NOS            | Not Otherwise Specified  |
| NTP            | National Toxicology Program (USA)  |
| R-Phrase       | Risk Phrase  |
| SUSDP          | Standard for the Uniform Scheduling of Drugs & Poisons   |
| UN Number      | United Nations Number  |

#### RESPIRATORS:

In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn, ensure correct respirator selection and training is undertaken. Remember that 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

#### HERBICIDES:

Herbicides are classed as selective when they are used to kill weeds without harming the crop and as non-selective when the purpose is to kill all vegetation. Herbicides can affect plants either by contact or translocation. Contact herbicides kill the plant parts to which the chemical is applied, while translocated herbicides are absorbed either by roots or above-ground parts of plants and then move within the plant system to distant tissues.

#### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

#### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Disclaimer**

This document is based on information concerning the product which has been provided to BGP by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue.

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