


**MATERIAL SAFETY DATA SHEET**
**A18137/05/AUS**
**ADVANTAGE FOR DOGS AND CATS**
**SECTION 1 – IDENTIFICATION, CONTACTS, HAZARDOUS NATURE**

Bayer Australia Ltd  
875 Pacific Highway  
Pymble NSW 2073

**Emergency Telephone Number**

1800 033 111  
24 hour Emergency Service Australia Wide, Toll Free

**Contact Point (for non-emergency calls)**

Animal Health Division  
**Telephone Number:** (02) 9391-6000

**Product Name**
**Advantage for Dogs and Cats**
**Product Use**

Spot-on insecticide for flea control in dogs and cats.

**Other Names**

Imidacloprid, benzyl alcohol  
This MSDS covers the following six products:

- ◆ Advantage for Kittens and Small Cats up to 4kg
- ◆ Advantage for Cats 4-10kg
- ◆ Advantage for Puppies and Small Dogs up to 4 kg
- ◆ Advantage for Dogs 4-10kg
- ◆ Advantage for Dogs 10-25kg
- ◆ Advantage for Dogs over 25kg

**Creation Date**

 25<sup>th</sup> June 2003

**Revision Date**

 30<sup>th</sup> January 2008

**SECTION 2 – HAZARDS IDENTIFICATION**
**Hazard Classification**

HAZARDOUS SUBSTANCE  
NON-DANGEROUS GOODS

**Risk Phrases**

Harmful by inhalation and if swallowed.

**Safety Phrases**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**RISK & SAFETY PHRASES ARE NOT REQUIRED ON PACKAGES INTENDED FOR END USERS. APPROPRIATE SAFETY DIRECTIONS AND FIRST AID STATEMENTS ARE SHOWN ON THE PRODUCT LABEL.**

<b>SECTION 3 – COMPOSITION</b>		
<b>Ingredients</b>	<b>CAS No</b>	<b>Proportion</b>
Imidacloprid*	138261-41-3	10%
Benzyl alcohol	100-51-6	>60%
Other ingredients determined not to be hazardous	-	10 - <30%
*Imidacloprid is a neonicotinoid: 1- (6-chloro-3-pyridinyl)methyl -N-nitro-2-imidazolidinimine		

<b>SECTION 4 – FIRST AID MEASURES</b>	
Label Regulated First Aid Statement	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.
General	Remove victim from contaminated area. If there is a risk of unconsciousness, position and transport in a stable lateral position. Remove soiled or soaked clothing immediately.
Scheduled Poisons	Poisons Information Centres in each State capital city can provide additional assistance for scheduled poisons. Phone 131126.
Inhalation	Harmful by inhalation. After inhalation remove from exposure and perform artificial respiration if necessary.
Skin contact	Remove contaminated clothing. Wash affected area immediately with soap and water. Seek medical attention if required.
Eye contact	Irritating to the eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion	Harmful if swallowed. If vomiting occurs keep head lower than hips to help prevent aspiration. Seek medical attention if required.
Advice to doctor	Imidacloprid is a chloronicotinyl compound (syn. neonicotinoid). There is no specific antidote. Apply basic aid and decontamination procedures. The formulation is extremely bitter and unlikely to be swallowed in significant quantity.

<b>SECTION 5 – FIRE FIGHTING MEASURES</b>	
Extinguishing Media	Sprayed water jet, foam, dry powder, CO <sub>2</sub> , sand
Fire and Explosion Hazards	Combustible liquid - Class C1.
Hazardous Combustion Products	Thermal decomposition products include hydrogen chloride, hydrogen cyanide, carbon monoxide, and nitrogen oxides.
Fire Fighting	Fight fire in the early stages if safe to do so. Wear respiratory protection.  In well ventilated areas wear full face mask with a combination filter. (Offers no protection from carbon monoxide)  In enclosed premises: respirator with independent air supply.  Contain firefighting water.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

Accidental Release	<p>Use any personal protective equipment listed in Chapter 8.</p> <p>Prevent spillage from spreading or entering soil, waterways and drains.</p> <p>Take up with absorbent material such as sawdust, peat or chemical binder. Fill material along with any contaminated soil etc., into sealable containers. Clean affected area with aqueous detergent and a small amount of water. Absorb this detergent/water with absorbent material. Place cleaning materials into the same container.</p> <p>Do not eat, drink or smoke during clean-up operation.</p> <p>Do not breathe vapour/spray.</p>
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**SECTION 7 – HANDLING AND STORAGE**

Safe Handling	During normal use the packaging ensures safe handling. Follow instructions on the product label.
Storage	<p>Keep out of reach of children.</p> <p>Store away from food, drink or animal feeding stuffs.</p> <p>To maintain product quality, store below 30°C.</p> <p>Protect from temperatures below 0°C and above 50°C.</p> <p>Keep away from heat or moisture.</p> <p>This material is a Schedule 5 poison and must be stored, handled and used in accordance with the relevant regulations.</p>

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Exposure Limits	<p>No exposure allocated for imidacloprid.</p> <p>No exposure allocated for other ingredients.</p>
Ventilation	No ventilation is required under normal conditions of use.
Eye Protection	Avoid contact with eyes. No eye protection is required under normal conditions of use. Under other conditions of use wear safety goggles
Skin Protection	Avoid contact with skin. No skin protection is required under normal conditions of use. Under other conditions of use wear rubber gloves. Wash hands before breaks and at end of work.
Respirator	Do not inhale vapour. No respirator is required under normal conditions of use.
Protective Material Types	Rubber, latex.
General Advice	Avoid contact with eyes or skin. Clean working clothes and protective equipment with soap and water. Change badly soiled or soaked clothing. Wash hands before breaks and at the end of work. If product is splashed on skin, immediately wash area with soap and water. When using do not eat, drink, or smoke.

**SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES**

Physical State	Liquid
Colour	Clear, yellow to brown
Odour	Weak characteristic odour
Boiling Point	207°C at 1013 hPa
Solidifying Range	Not available
Density	1.093-1.103 kg/L at 20°C
Vapour Pressure	2 hPa at 20°C 9 hPa at 50°C 11 hPa at 55°C
Viscosity	approx 29 s (DIN EN ISO 2431)
Solubility in Water	Miscible
pH	approx 6.4
Flash Point	88°C
Ignition Temperature	415°C
Explosive Limits	Not available
Other Information	The product is packaged in individual, single dose tubes of 0.4 to 4.0 ml capacity. The tubes are packed in blister pack trays of 4 or 6 tubes per tray. The product is therefore well protected from accidental release.

**SECTION 10 – STABILITY & REACTIVITY**

Chemical Stability	Product is stable. No hazardous reactions.
Conditions to Avoid	Avoid strong oxidising agents.
Incompatible Materials	None
Hazardous Decomposition	Thermal decomposition products include hydrogen cyanide, carbon monoxide, and nitrogen oxides.
Hazardous Reactions	Will not polymerise.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Acute Toxicity	Oral LD <sub>50</sub> (rat) 1732-1943 mg/kg (of formulation) Dermal LD <sub>50</sub> (rat) >2000 mg/kg (of formulation) Inhalation LC <sub>50</sub> (rat) >2,415 mg/L (4h) (of formulation)
Local Effects	Eye: mildly irritating to the eye of rabbits Skin: non-irritating to the skin of guinea pigs. Moderately irritating to the mucous membranes of rabbits. Non skin sensitising.

Reproductive Effects	None of the ingredients of the formulation have been shown to produce reproductive or teratogenic effects.
Mutagenicity	None of the ingredients of the formulation have been shown to produce mutagenic effects.
Carcinogenic Effects	Imidacloprid has been shown in animal tests to have no carcinogenic potential. Other ingredients are not classified as carcinogens

## SECTION 12 – ECOLOGICAL INFORMATION

Octanol/Water Partition Co-efficient	$K_{ow}$ logP = 0.57 at 21°C (imidacloprid)
Ecotoxicity	<p><b>Fish toxicity</b>  Imidacloprid  LC<sub>50</sub> 237 mg/L (96h) Golden orfe (<i>Leuciscus idus</i>)  LC<sub>50</sub> 211 mg/L (96h) Rainbow trout (<i>Oncorhynchus mykiss</i>)  LC<sub>50</sub> 280 mg/L (96h) Carp (<i>Cyprinus carpio</i>)</p> <p>benzyl alcohol  LC<sub>50</sub> 646 mg/L (48h) Golden orfe (<i>Leuciscus idus</i>)  LC<sub>50</sub> 460 mg/L (96h) <i>Pimephales promelas</i></p> <p><b>Daphnia toxicity</b>  Imidacloprid  EC<sub>50</sub> 0.055 mg/L (48h) <i>Hyaella azteca</i>  EC<sub>50</sub> 85 mg/L (48h) Water flea (<i>Daphnia magna</i>)</p> <p>benzyl alcohol  EC<sub>50</sub> 400 mg/L Water flea (<i>Daphnia magna</i>)</p> <p><b>Algal toxicity</b>  benzyl alcohol  EC<sub>50</sub> 640 mg/L (96h) Green algae (<i>Scenedesmus subspicatus</i>)</p> <p><b>Bacterial toxicity</b>  benzyl alcohol  EC<sub>10</sub> ca 658 mg/L <i>Pseudomonas putida</i></p>
Abiotic Degradation	Imidacloprid t <sub>1/2</sub> >1 yr at pH 5 (25°C) t <sub>1/2</sub> >1 yr @ pH 7 (25°C) t <sub>1/2</sub> approx 1 yr @ pH 9 (25°C)

## SECTION 13 – DISPOSAL INFORMATION

After Intended Use	Dispose of used applicators by wrapping in paper and placing in garbage
After spill or accident	Dispose of sealed containers at an approved local waste disposal site.

**SECTION 14 – TRANSPORT INFORMATION**

UN No	Not classified
UN Proper Shipping Name	Not classified
Class & Subsidiary Risk	Not classified
Packaging Group	Not classified
Hazchem Code	Not classified

**SECTION 15 – REGULATORY INFORMATION**

Poisons Schedule	Schedule 5
APVMA Registration	The products are registered by the APVMA.
Registration Numbers	50395, 50396, 50397, 50398, 50399, 50400.
Labelling	All necessary directions, precautions and warnings for normal use of the product are included on the product label.

**SECTION 16 – OTHER INFORMATION**

Summary of Changes from Last Edition	Routine Review and Update Amended typographic error in Inhalation rat from 2145 to 2415..
Acronyms	<b>ADG</b> Code Australian Code for the Transport of Dangerous Goods by Road and Rail <b>APVMA</b> Australian Pesticides and Veterinary Medicines Authority <b>CAS</b> Chemical Abstracts Service Registry Number <b>HDPE</b> High density polyethylene <b>LDPE</b> Low density polyethylene <b>NOHSC</b> National Occupational Health & Safety Commission <b>SUSDP</b> Standard for the Uniform Scheduling of Drugs and Poisons <b>UN Number</b> United Nations number

**Disclaimer**

This Material Safety Data Sheet has been developed according to the NOHSC National Code of Practice for the Preparation of MSDS [NOHSC:2011(2003)].

The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof.

The purpose of this Material Safety Data Sheet is to describe product in terms of their safety requirements.

Bayer Australia Limited make no representation of merchantability, fitness for a particular purpose or application, or of any other nature with respect to the information or the product to which the information refers ("the product").

The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use of the product.

The physical data shown herein are typical values based on material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and / or its packaging is in compliance with relevant Federal, State and Local Government regulations.

**END OF MSDS**