

# MATERIAL SAFETY DATA SHEET



Date of Issue: September 10, 2004

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product name** **Confidor® Guard Soil Insecticide**

**Other names** None

**Product code and pack sizes** 2912787 (5 L); 2910164 (10 L)

**Chemical group** Chloronicotinyl

**Recommended use** Agricultural insecticide applied to soil

**Formulation** Suspension concentrate

**Supplier** Bayer CropScience Pty Ltd ABN 87 000 226 022

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**Emergency Telephone Number** 1800 033 111 – Orica SH&E Shared Services

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
**HAZARDOUS SUBSTANCE (see Risk phrases below) – NON DANGEROUS GOOD**  
**Harmful to aquatic organisms**

**Hazard classification** Hazardous (National Occupational Health and Safety Commission - NOHSC)

**Risk phrases** R22 – Harmful if swallowed  
R43 - May cause sensitisation by skin contact

**Safety phrases** See Sections 4, 5, 6, 7, 8, 10, 12, 13

**ADG classification** Not classified as a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail:

**SUSDP classification** Schedule 6 (Standard for the Uniform Scheduling of Drugs and Poisons)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (g/L)
Imidacloprid	[138261-41-3]	350
Isothiazolone antifungal agent	[55965-84-9]	0.02
Other ingredients, including emulsifiers, stabilizers, antifungal agents and water	(non-hazardous)	≈ 840

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## 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to the doctor.**

<b>Inhalation</b>	If inhaled, remove to fresh air and keep warm and at rest. Seek medical advice if at all worried.
<b>Skin contact</b>	Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical advice if at all worried.
<b>Eye contact</b>	Rinse eyes immediately with clean water for at least 15 minutes. Obtain medical advice.
<b>Ingestion</b>	Obtain immediate medical advice as above. Do not induce vomiting unless advised to do so by doctor or Poisons Information Centre. Do not give anything by mouth to an unconscious or semi conscious person.
<b>First Aid Facilities</b>	Provide washing facilities in the workplace.
<b>Medical attention</b>	<p><u>Information for the physician:</u> The active ingredient, imidacloprid belongs to the following chemical group: chloronicotinyl or neonicotinoid Therapeutic measures: Basic aid, decontamination, symptomatic treatment.</p> <p><u>Symptoms</u> <i>Local:</i> None expected. <i>Systemic:</i> Apathetic state, depressed muscular tone, respiratory disturbances and trembling. Muscular cramps are also possible in severe cases of poisoning.</p> <p><u>Treatment</u> <i>Local:</i> See First Aid Measures above. <i>Systemic:</i> Symptomatic (nicotine-like effects). Check blood pressure and pulse rate frequently, as bradycardia and hypotonia are possible. Provide supportive measures for respiratory function and cardiac action. Give artificial respiration if signs of paralysis appear. Additional therapeutic measures involve elimination of the substance from the body or acceleration of its excretion (gastrolavage, saline laxatives). <i>Antidote:</i> None known. <i>Contraindications:</i> Absorption promoting agents such as alcoholic beverages and milk. Oils and fats are of no particular use, as the active ingredient has low liposolubility.</p>

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Water, foam, extinguishing powder, carbon dioxide, sand.
<b>Hazards from combustion products</b>	In a fire, formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides can be expected.
<b>Precautions for fire fighters</b>	Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later. Do not release contaminated water into the environment.

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## 5. FIRE FIGHTING MEASURES - continued

**Hazchem code** Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with the spilled material or contaminated surfaces. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment as described in Section 8 - PERSONAL PROTECTION. Keep people and animals away. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

## 7. HANDLING AND STORAGE

**Handling** Keep out of reach of children. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. Wash hands after use. After each day's use, wash gloves, face shield and contaminated clothing.

**Storage** Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

**Flammability** Not flammable – water based product.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure standards** The NOHSC exposure standard (TWA) for glycerin mist is: 10 mg/m<sup>3</sup>  
*Exposure standard – Time Weighted Average (TWA)* means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

**Biological limit values** None allocated

**Engineering controls** Control process conditions to avoid contact. Use in a well-ventilated area only.

**Personal Protective Equipment**

Eyes:	Wear face shield.
Clothing:	Wear cotton overalls buttoned to the neck and wrist and a washable hat.
Gloves:	Wear elbow-length PVC gloves.
Respiratory:	Wear a disposable mask if inhalation is likely.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Red liquid suspension
<b>Odour:</b>	Slight characteristic
<b>pH:</b>	4.0 – 7.0
<b>Vapour pressure:</b>	4 x 10 <sup>-7</sup> mPa at 20° C (imidacloprid)
<b>Vapour density:</b>	Not available
<b>Boiling point:</b>	Not available
<b>Freezing/melting point:</b>	Not available
<b>Solubility:</b>	Miscible with water

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## 9. PHYSICAL AND CHEMICAL PROPERTIES - continued

<b>Specific Gravity:</b>	Approximately 1.19 at 20° C
<b>Flash Point:</b>	No flash point up to 100° C
<b>Flammability (explosive) limits:</b>	Not applicable
<b>Auto-ignition temperature:</b>	Not available
<b>Partition coefficient (octanol/water):</b>	<i>Imidacloprid</i> : Log $P_{ow}$ = 0.57 (21° C)

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable under normal conditions of use.
<b>Conditions to avoid</b>	Avoid extreme heat.
<b>Incompatible materials</b>	Avoid acids, alkalis, strong oxidising agents.
<b>Hazardous decomposition products</b>	None under normal conditions. In a fire, formation of hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides can be expected.
<b>Hazardous reactions</b>	None

## 11. TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

<b>Inhalation</b>	May be harmful if inhaled.
<b>Skin contact</b>	May irritate skin. Repeated exposure may cause allergic disorders.
<b>Eye contact</b>	May irritate eyes.
<b>Ingestion</b>	Harmful if swallowed. Symptoms of poisoning include: Apathetic state, depressed muscular tone, respiratory disturbances and trembling. Muscular cramps are also possible in severe cases of poisoning.

### ANIMAL TOXICITY DATA – SIMILAR PRODUCT

#### Acute:

<b>Oral toxicity</b>	LD <sub>50</sub> rat (male): 768 mg/kg LD <sub>50</sub> rat (female): 1042 mg/kg
<b>Dermal toxicity</b>	LD <sub>50</sub> rat: > 5000 mg/kg
<b>Inhalation toxicity</b>	LC <sub>50</sub> rat (4 hour): > 1752 mg/m <sup>3</sup> - aerosol (highest attainable concentration)

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## 11. TOXICOLOGICAL INFORMATION - continued

<b>Skin irritation</b>	Not irritating (rabbit)
<b>Mucous membrane irritation</b>	Not irritating (rabbit)
<b>Sensitisation</b>	Non-sensitising (guinea pig) This product is classified as "Sensitising" according to the European criteria, as it contains a very small amount of an isothiazolone antifungal agent.

### Chronic:

Animal studies with imidacloprid show no evidence of oncogenic effects, no evidence of carcinogenic effects and no teratogenic potential.

## 12. ECOLOGICAL INFORMATION

Imidacloprid is toxic to certain aquatic species. Dangerous to bees.  
DO NOT contaminate streams, rivers or waterways with Confidor Guard Soil Insecticide or the used containers.

### **Ecotoxicity**

#### Imidacloprid:

##### *Fish toxicity:*

LC<sub>50</sub>: 237 mg/L (96 h); golden orfe (*Leuciscus idus*)

LC<sub>50</sub>: 211 mg/L (96 h); rainbow trout (*Salmo gairdneri*)

LC<sub>50</sub>: 280 mg/L (96 h); carp (*Cyprinus carpio*)

##### *Aquatic invertebrate toxicity:*

EC<sub>50</sub>: 0.055 mg/L (48 h); *Hyalella azteca*

EC<sub>50</sub>: 85 mg/L (48 h) *Daphnia magna*

##### *Algae toxicity:*

EC<sub>50</sub>: > 100 mg/L (72 h); green alga (*Pseudokirchneriella subcapitata*)

##### *Bacteria toxicity:*

EC<sub>50</sub>: > 10000 mg/L; activated sludge (OECD 209)

##### *Bird toxicity:*

Acute oral LD<sub>50</sub>: 31 mg/kg; Japanese quail

Acute oral LD<sub>50</sub>: 152 mg/kg; bobwhite quail

<b>Environmental fate, persistence and degradability</b>	Imidacloprid shows a medium adsorption to soil. Classified as immobile in soil. Not expected to leach.
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## 13. DISPOSAL CONSIDERATIONS

Triple rinse 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product through a reputable waste contractor.

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## 14. TRANSPORT INFORMATION

<b>UN number</b>	Not applicable
<b>Proper shipping name</b>	Not applicable
<b>Class and Subsidiary Risk</b>	Not applicable
<b>Packing Group</b>	Not applicable
<b>EPG</b>	Not applicable
<b>Hazchem code</b>	Not applicable
<b>Marine Pollutant</b>	No

## 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988.

Australian Pesticides and Veterinary Medicines Authority approval number: 55753

See also Section 2.

## 16. OTHER INFORMATION

**Trademark information** Confidor® is a Registered Trademark of Bayer.

**Preparation information** Replaces 24.03.04 MSDS for Experimental product.  
Changes include: Addition of R43 according to Office of Chemical Safety review and European classification of isothiazolones, addition of product codes and pack sizes, glycerin content not required.

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.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS