

**Bayer Environmental Science**  
**Safety Data Sheet**  
**Yates® Complete Lawn Insect Control**



Version 2 / AUS

Revision Date: 29.11.2012

**SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Product name: **Yates® Complete Lawn Insect Control**  
 Other names: None  
 Product code (UVP): 80893760  
 Recommended use: Insecticide

Chemical formulation: Suspension concentrate (=flowable concentrate)(SC)

Company: Bayer CropScience Pty. Ltd.  
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**SECTION 2. HAZARDS IDENTIFICATION**

**Emergency Overview**

HAZARDOUS SUBSTANCE		DANGEROUS GOODS
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Hazardous classification: Hazardous (National Occupational Health and Safety Commission - NOHSC).

R-phrase(s): R22 – Harmful if swallowed.  
 R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s): See sections 4, 5, 6, 7, 8, 10, 13.

ADG Classification: Not a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. For transport by sea, Yates Complete Lawn Insect Control is a MARINE POLLUTANT. See Section 14.

SUSMP classification (Poison Schedule): Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons).

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature: Beta-Cyfluthrin 3 g/L  
 Imidacloprid 15 g/L

Chemical Name	CAS-No.	Concentration [%]
Beta-cyfluthrin	68359-37-5	0.3
Imidacloprid	138261-41-3	1.5
Glycerine	56-81-5	11.5



Other ingredients (non-hazardous) to 100 %		
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**SECTION 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 Safety Data Sheet to the doctor.**

**Inhalation**

Move to fresh air. When symptoms persist or in all cases of doubt seek medical advice.

**Skin contact**

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

**Ingestion**

Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

**Notes to physician**

**Symptoms**

Local: Skin and eye paraesthesia which may be severe, usually transient with resolution within 24 hours. Skin, eye and mucous membrane irritation, cough, sneezing.

Systemic: Discomfort in the chest, tachycardia, hypotension, nausea, abdominal pain, diarrhoea, vomiting, dizziness, blurred vision, headache, anorexia, somnolence, coma, convulsions, tremors, prostration, airway hyperreaction, pulmonary oedema, palpitation, muscular fasciculation, apathy.

**Treatment**

Treat symptomatically.

Monitor: respiratory and cardiac functions.

In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

**SECTION 5. FIRE FIGHTING MEASURES**

**Suitable extinguishing media**

- Water spray
- Carbon dioxide (CO<sub>2</sub>)
- Foam
- Dry chemical

**Hazards from combustion products**

In the event of fire dangerous gases may evolve.

**Precautions for fire-fighting**

In the event of fire and/or explosion do not breathe fumes.  
In the event of fire, wear self-contained breathing apparatus.  
Wear self-contained breathing apparatus and protective suit.



Contain the spread of the fire-fighting media.  
Do not allow run-off from fire fighting to enter drains or water courses.

**Hazchem Code** •3Z

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

Avoid contact with spilled product or contaminated surfaces.  
Use personal protective equipment.  
When dealing with a spillage do not eat, drink or smoke.

**Environmental precautions**

Do not allow to get into surface water, drains and ground water.  
If the product contaminates rivers and lakes or drains inform respective authorities.

**Methods for cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Clean contaminated floors and objects thoroughly, observing environmental regulations.  
Keep in suitable, labeled and closed containers for disposal.

**Additional advice**

Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

**SECTION 7. HANDLING AND STORAGE**

**Handling**

Hygiene measures:

Avoid contact with skin, eyes and clothing.  
Keep working clothes separately.  
Remove soiled clothing immediately and clean thoroughly before using again.  
Garments that cannot be cleaned must be destroyed (burnt).  
Wash hands before breaks and immediately after handling the product.

**Storage**

Requirements for storage areas and containers:

Store in original container.  
Store in a place accessible by authorized persons only.  
Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage:

Keep away from food, drink and animal feedingstuffs.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Imidacloprid	138261-41-3	0.7 mg/m <sup>3</sup> (TWA)		OES BCS

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Glycerine (Inspirable dust)	56-81-5	10 mg/m <sup>3</sup> (TWA)	12 2011	AU OEL
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For further details on the Occupational Exposure Standards, see Section 16.

**Personal protective equipment - End user**

Respiratory protection: No personal respiratory protective equipment normally required.

Hand protection: No personal hand protective clothing normally required. Elbow-length PVC or nitrile gloves are, however, recommended as good practice.

Skin and body protection: No skin and body protective equipment normally required.

**Engineering controls**

Advice on safe handling:

Use only in area provided with appropriate exhaust ventilation.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**

Form: Liquid, suspension  
Colour: White to beige  
Odour: Negligible

**Safety data**

pH: 4.0 – 6.0  
Flash point: No data available  
Ignition temperature: No data available  
Upper explosion limit: No data available  
Lower explosion limit: No data available  
Vapour pressure: No data available  
Relative vapour density: No data available  
Density: 1.064 g/cm<sup>3</sup>  
Water solubility: Miscible  
Partition coefficient: n-octanol/water: No data available

**SECTION 10. STABILITY AND REACTIVITY**

Chemical stability: Stable under normal conditions.



Materials to avoid:	Strong acids Bases Strong oxidizing agents
Hazardous decomposition products:	Thermal decomposition can lead to release of: Hydrogen chloride (HCl) Hydrogen cyanide (hydrocyanic acid) Hydrogen fluoride Carbon monoxide Nitrogen oxides (NO <sub>x</sub> )
Hazardous reactions:	No hazardous reactions when stored and handled according to prescribed instructions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Potential health effects**

Inhalation:	May be harmful by inhalation.
Skin:	May cause skin irritation.
Eye:	May cause eye irritation.
Ingestion:	May be harmful if swallowed.

**Animal toxicity studies**

Acute oral toxicity:	LD <sub>50</sub> (rat) 424 mg/kg The value mentioned relates to the active ingredient imidacloprid.
Acute oral toxicity:	LD <sub>50</sub> (rat) 11 mg/kg The value mentioned relates to the active ingredient beta-cyfluthrin.
Acute inhalation toxicity:	LC <sub>50</sub> (rat) > 5.323 mg/L Exposure time: 4 h Determined in the form of a respirable fine dust. The value mentioned relates to the active ingredient imidacloprid.
Acute inhalation toxicity:	LC <sub>50</sub> (rat) ca. 0.5 mg/L Exposure time: 4 h Determined in the form of a respirable fine dust. The value mentioned relates to the active ingredient beta-cyfluthrin.
Acute dermal toxicity:	LD <sub>50</sub> (rat) > 5,000 mg/kg The value mentioned relates to the active ingredient imidacloprid.
Acute dermal toxicity:	LD <sub>50</sub> (rat) > 5,000 mg/kg The value mentioned relates to the active ingredient beta-cyfluthrin.
Skin irritation:	No skin irritation (rabbit). The value mentioned relates to the active ingredient imidacloprid.
Skin irritation:	No skin irritation (rabbit). The value mentioned relates to the active ingredient beta-cyfluthrin.



Eye irritation:	No eye irritation (rabbit). The value mentioned relates to the active ingredient imidacloprid.
Eye irritation:	Mild eye irritation (rabbit). The value mentioned relates to the active ingredient beta-cyfluthrin.
Sensitisation:	Non-sensitizing (guinea pig). OECD Test Guideline 406, Magnusson & Kligman test The value mentioned relates to the active ingredient imidacloprid.
Sensitisation:	Non-sensitizing (guinea pig). OECD Test Guideline 406, Magnusson & Kligman test. The value mentioned relates to the active ingredient beta-cyfluthrin.

#### Assessment mutagenicity

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Cyfluthrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

#### Assessment carcinogenicity

Imidacloprid was not carcinogenic in lifetime feeding studies in rats and mice.

Cyfluthrin was not carcinogenic in lifetime feeding studies in rats and mice.

#### Assessment toxicity to reproduction

Imidacloprid did not cause reproductive toxicity in a two-generation study in rats.

Cyfluthrin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Cyfluthrin is related to general toxicity.

#### Assessment developmental toxicity

Imidacloprid did not cause developmental toxicity in rats and rabbits.

Cyfluthrin caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Cyfluthrin are related to maternal toxicity.

#### Chronic toxicity

Imidacloprid did not cause any significant specific adverse effects or target organ toxicity in subchronic toxicity studies.

Cyfluthrin caused clinical signs of toxicity including neurological symptoms and effects on the thyroid in chronic studies on rats and dogs.

#### Assessment neurotoxicity

Imidacloprid showed slight behavioral and activity changes only at the highest dose tested in neurotoxicity studies in rats. There were no correlating morphological changes observed in the neural tissues.

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity effects

Toxicity to fish: LC<sub>50</sub> (*Oncorhynchus mykiss* (Rainbow trout)) 211 mg/L  
Exposure time: 96 h  
The value mentioned relates to the active ingredient imidacloprid.

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Toxicity to fish:	LC <sub>50</sub> ( <i>Oncorhynchus mykiss</i> (Rainbow trout)) 0,068 µg/L Exposure time: 96 h The value mentioned relates to the active ingredient beta-cyfluthrin.
Toxicity to aquatic invertebrates:	LC <sub>50</sub> ( <i>Chironomus riparius</i> (non-biting midge)) 0.0552 mg/L Exposure time: 24 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to aquatic invertebrates:	EC <sub>50</sub> ( <i>Daphnia magna</i> (Water flea)) 85 mg/L Exposure time: 48 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to aquatic invertebrates:	EC <sub>50</sub> ( <i>Daphnia magna</i> (Water flea)) 0,29 µg/L Exposure time: 48 h The value mentioned relates to the active ingredient beta-cyfluthrin.
Toxicity to aquatic plants:	EC <sub>50</sub> ( <i>Desmodesmus subspicatus</i> ) > 10 mg/L Growth rate Exposure time: 72 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to aquatic plants:	IC <sub>50</sub> ( <i>Desmodesmus subspicatus</i> ) > 0.01 mg/L Growth rate Exposure time: 72 h The value mentioned relates to the active ingredient beta-cyfluthrin. No acute toxicity was observed at its limit of water solubility.
Toxicity to other organisms:	LD <sub>50</sub> ( <i>Coturnix japonica</i> (Japanese quail)) > 2,000 mg/kg The value mentioned relates to the active ingredient beta-cyfluthrin.
Biodegradability:	Readily biodegradable. The value mentioned relates to the active ingredient beta-cyfluthrin.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Dispose of empty container by wrapping in paper, placing in plastic bag and putting in garbage.

**SECTION 14. TRANSPORT INFORMATION**

**ADG**

UN-Number	3082
Class	9
Subsidiary Risk	None
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN, IMIDACLOPRID SOLUTION)
Hazchem Code	•3Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

**IMDG**

UN-Number	3082
Class	9
Subsidiary Risk	None



Packaging group	III
EmS	F-A , S-F
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN, IMIDACLOPRID SOLUTION)

**IATA**

UN-Number	<b>3082</b>
Class	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN, IMIDACLOPRID SOLUTION )

**SECTION 15. REGULATORY INFORMATION**

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994.

Australian Pesticides and Veterinary Medicines Authority approval number: 66871.

See also Section 2.

**SECTION 16. OTHER INFORMATION**

This SDS 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 SDS 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.

**Further details on the Occupational Exposure Standards mentioned in Section 8:**

CEILING: Ceiling Limit Value

OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

SKIN\_DES: Skin notation: Absorption through the skin may be a significant source of exposure.



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TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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END OF SDS