



SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **Yates® Complete Lawn Insect Control**
 Other names: 80893760
 Product code (UVP): To be advised.
 Recommended use: Insecticide

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

Company: Bayer New Zealand Limited
 3 Argus Place
 Glenfield
 Auckland
 New Zealand

Telephone: 0800 227 012
 Facsimile: 0800 227 011
 Website: www.bayeres.com.au
 Emergency telephone no.: 0800 734 607 Orica SH&E Shared Services (24 hr)

SECTION 2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE	Emergency Overview	DANGEROUS GOODS
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Hazardous classification:	Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.	
HSNO classifications:	6.3B, 6.5B, 6.8C, 6.9B (All), 6.9B (O), 9.1A (All), 9.1A (M), 9.2C, 9.3C, 9.4A. Causes mild skin irritation. May cause an allergic skin reaction. May cause harm to breast-fed children. May cause organ damage from repeated oral exposure. Very toxic to aquatic life. Harmful to the soil environment. Harmful to terrestrial vertebrates. Very toxic to terrestrial invertebrates.	
GHS pictograms:		
Signal words:	Warning.	
R-phrases:	R22 – Harmful if swallowed. R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	
S-phrases:	See sections 4, 5, 6, 7, 8, 10, 13.	
Dangerous Goods Classification:	“Dangerous goods” for transport according to NZS 5433:1999, UN, IMDG or IATA - See Section 14.	



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 %		

SECTION 4. FIRST AID MEASURES

In case of poisoning by any exposure route contact the National Poisons and Hazardous Chemicals Information Centre, P.O. Box 913, Dunedin. Phone 0800 764 766, 0800 POISON and follow the advice given. Show this Safety Data Sheet to the doctor.

Workplace facilities

Ensure washing facilities are available.

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 (CO₂)
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).

Collect and transfer the product into a properly labelled and tightly closed container.

- For quantities up to 50 L of product bury in a secure approved landfill site.
- For quantities greater than 50 L seek advice from the manufacturer (use emergency contact number) before attempting disposal. Contain in a secure location until disposal method is established.

Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

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.

Approved handler

This product must be under the personal control of an approved handler when the product is:

- a) applied in a wide dispersive manner; or
- b) used by a commercial contractor.

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 ³ (TWA)		OES BCS
Glycerine (mist)	56-81-5	10 mg/m ³ (TWA)	09 2010	OHS WES NZ

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: Wear elbow-length PVC or nitrile gloves.

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

Bayer Environmental Science

Safety Data Sheet

Yates® Complete Lawn Insect Control



Version 1 / NZ

Revision Date: 29.08.2012

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 ³
Water solubility:	Miscible
Partition coefficient: n-octanol/water:	No data available

SECTION 10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions.
Conditions to avoid:	Extreme heat and fire.
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 _x)
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 ₅₀ (rat) 424 mg/kg The value mentioned relates to the active ingredient imidacloprid.
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Acute oral toxicity:	LD ₅₀ (rat) 11 mg/kg The value mentioned relates to the active ingredient beta-cyfluthrin.
Acute inhalation toxicity:	LC ₅₀ (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 ₅₀ (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 ₅₀ (rat) > 5,000 mg/kg The value mentioned relates to the active ingredient imidacloprid.
Acute dermal toxicity:	LD ₅₀ (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.

HSNO classifications

6.3B, 6.5B, 6.8C, 6.9B.
Causes mild skin irritation.
May cause an allergic skin reaction.
May cause harm to breast-fed children.
May cause organ damage from repeated oral exposure.

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

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|------------------------------------|--|
| Toxicity to fish: | LC ₅₀ (<i>Oncorhynchus mykiss</i> (Rainbow trout)) 211 mg/L
Exposure time: 96 h
The value mentioned relates to the active ingredient imidacloprid. |
| Toxicity to fish: | LC ₅₀ (<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 ₅₀ (<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 ₅₀ (<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 ₅₀ (<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 ₅₀ (<i>Desmodemus 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 ₅₀ (<i>Desmodemus 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: LD₅₀ (*Coturnix japonica* (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.

HSNO classifications

9.1A, 9.2C, 9.3C, 9.4A.
 Very toxic to aquatic life.
 Harmful to the soil environment.
 Harmful to terrestrial vertebrates.
 Very toxic to terrestrial invertebrates.

SECTION 13. DISPOSAL CONSIDERATIONS

Product

Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Container

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

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	3082
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

EPA approval number: APPROVED PURSUANT TO THE HSNO ACT 1996, No. HSR100711.
See www.epa.govt.nz for approval controls.

ACVM approval: Not required.

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.

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.

END OF SDS