



## Tempo® Xtra Turf and Ornamental Insecticide

Version 1 / AUS  
102000022949

1/11  
Revision Date: 06.10.2016  
Print Date: 06.10.2016

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Trade name** Tempo® Xtra Turf and Ornamental Insecticide  
**Product code (UVP)** 79726996

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Use** Insecticide

#### 1.3 Details of the supplier of the safety data sheet

**Supplier** Bayer Cropscience Pty Ltd  
ABN 87 000 226 022  
Level 1, 8 Redfern Road  
3123 Hawthorn East  
Victoria  
Australia

**Telephone** (03) 9248 6888

**Telefax** (03) 9248 6800

**Responsible Department** 1800 804 479 Technical Information Service

**Website** [www.environmentalscience.bayer.com.au](http://www.environmentalscience.bayer.com.au)

#### 1.4 Emergency telephone no.

**Emergency telephone no.** 1800 033 111 IXOM Operations Pty Ltd

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification in accordance with Australian GHS Regulation

Acute toxicity: Category 4  
H332 Harmful if inhaled.

Acute aquatic toxicity: Category 1  
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

##### Hazardous components which must be listed on the label:

Beta-Cyfluthrin  
Imidacloprid

**Signal word:** Warning

##### Hazard statements

H332 Harmful if inhaled.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

##### Precautionary statements



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P261 Avoid breathing mist.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER/doctor/physician if you feel unwell.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No other hazards known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Beta-Cyfluthrin 25 g/L, Imidacloprid 50 g/L

Chemical nature Suspension concentrate (=flowable concentrate)(SC)

Chemical Name	CAS-No.	Concentration [%]
Beta-Cyfluthrin	68359-37-5	2.31
Imidacloprid	138261-41-3	4.63
Glycerine	56-81-5	> 10.00 - <= 30.00
Sulfonated aromatic polymer, sodium salt	68425-94-5	> 1.00 - < 10.00
1,2-Benzisothiazol-3(2H)-one	2634-33-5	> 0.05 - < 1.00
Other ingredients (non-hazardous) to 100%		

## 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.**

### 4.1 Description of first aid measures

**General advice** Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

**Inhalation** Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

**Skin contact** Immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.

**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. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.



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**Ingestion** Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Do not leave victim unattended. Call a physician or poison control center immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

**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, Blurred vision, Headache, anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy, Dizziness

**4.3 Indication of any immediate medical attention and special treatment needed**

**Risks** This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.

**Treatment** Systemic treatment: Initial treatment: symptomatic. 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. Keep respiratory tract clear. Oxygen or artificial respiration if needed. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used. Contraindication: atropine. Contraindication: derivatives of adrenaline. There is no specific antidote. Recovery is spontaneous and without sequelae.

In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

**SECTION 5. FIRE FIGHTING MEASURES**

**5.1 Extinguishing media**

**Suitable** Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Dry chemical

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released:, Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NO<sub>x</sub>)

**5.3 Advice for firefighters**

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**Further information** Avoid contact with spilled product or contaminated surfaces. Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.





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		(TWA)		
Glycerine (Inhalable mist.)	56-81-5	10 mg/m3 (TWA)	12 2011	AU NOEL

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

**8.2 Exposure controls**

**Respiratory protection**

Respiratory protection is not required under anticipated circumstances of exposure.  
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection**

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.  
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.  
Material Nitrile rubber  
Rate of permeability > 480 min  
Glove thickness > 0.4 mm  
Protective index Class 6  
Directive Protective gloves complying with EN 374.

**Eye protection**

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection**

Wear standard coveralls and Category 3 Type 4 suit.  
If there is a risk of significant exposure, consider a higher protective type suit.  
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.  
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**General protective measures**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.  
If product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals

**Engineering Controls**

**Advice on safe handling**

Use only in area provided with appropriate exhaust ventilation.



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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<b>Form</b>	suspension
<b>Colour</b>	light beige to light brown
<b>pH</b>	4.5 - 7.0 at 100 % (23 °C)
<b>Density</b>	ca. 1.08 g/cm <sup>3</sup> at 20 °C
<b>Partition coefficient: n-octanol/water</b>	Beta-Cyfluthrin: log Pow: 6.18 at 22 °C Imidacloprid: log Pow: 0.57

**9.2 Other information** Further safety related physical-chemical data are not known.

**SECTION 10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.

**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5 Incompatible materials** Strong acids, Strong bases, Strong oxidizing agents

**10.6 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>)

**SECTION 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute oral toxicity** LD50 (Rat) > 1,044 mg/kg  
Test conducted with a similar formulation.

**Acute inhalation toxicity** LC50 (Rat) > 2.03 mg/l  
Exposure time: 4 h  
Highest attainable concentration.  
Determined in the form of liquid aerosol.  
Test conducted with a similar formulation.

**Acute dermal toxicity** LD50 (Rat) > 2,000 mg/kg  
Test conducted with a similar formulation.



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<b>Skin irritation</b>	slight irritation (Rabbit) The value mentioned relates to the active ingredient beta-cyfluthrin. No skin irritation (Rabbit) The value mentioned relates to the active ingredient imidacloprid.
<b>Eye irritation</b>	Mild eye irritation. (Rabbit) The value mentioned relates to the active ingredient beta-cyfluthrin. No eye irritation (Rabbit) The value mentioned relates to the active ingredient imidacloprid.
<b>Sensitisation</b>	Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Magnusson & Kligman test The value mentioned relates to the active ingredient beta-cyfluthrin. Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Magnusson & Kligman test The value mentioned relates to the active ingredient imidacloprid.

### 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 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 Imidacloprid is related to parental toxicity.  
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 parental toxicity.

### Assessment developmental toxicity

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

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

### Assessment STOT Specific target organ toxicity – repeated exposure

Imidacloprid did not cause specific target organ toxicity in experimental animal studies.

The toxic effects of Cyfluthrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Information on likely routes of exposure

Toxic by inhalation.

May cause skin irritation.

May cause eye irritation.

### Early onset symptoms related to exposure

Refer to Section 4

### Delayed health effects from exposure

Refer to Section 11



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**Exposure levels and health effects**

Refer to Section 4

**Interactive effects**

Not known

**When specific chemical data is not available**

Not applicable

**Mixture of chemicals**

Refer to Section 2.1

**Further information**

No further toxicological information is available.

<b>SECTION 12. ECOLOGICAL INFORMATION</b>
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**12.1 Toxicity**

**Toxicity to fish**

LC50 (Oncorhynchus mykiss (rainbow trout)) 0.068 µg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient beta-cyfluthrin.

LC50 (Oncorhynchus mykiss (rainbow trout)) 211 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient imidacloprid.

**Toxicity to aquatic invertebrates**

EC50 (Daphnia magna (Water flea)) 0.29 µg/L  
Exposure time: 48 h  
The value mentioned relates to the active ingredient beta-cyfluthrin.

EC50 (Daphnia magna (Water flea)) 85 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient imidacloprid.

LC50 (Chironomus riparius (non-biting midge)) 0.0552 mg/l  
Exposure time: 24 h  
The value mentioned relates to the active ingredient imidacloprid.

**Chronic toxicity to aquatic invertebrates**

EC10 (Chironomus riparius (non-biting midge)): 2,09 µg/l  
Exposure time: 28 d  
The value mentioned relates to the active ingredient imidacloprid.

**Toxicity to aquatic plants**

IC50 (Desmodesmus subspicatus (green algae)) > 0.01 mg/l  
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.

IC50 (Desmodesmus subspicatus (green algae)) > 10 mg/l  
Exposure time: 72 h  
The value mentioned relates to the active ingredient imidacloprid.

**Toxicity to other organisms**

LD50 (Coturnix japonica (Japanese quail)) > 2,000 mg/kg





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The value mentioned relates to the active ingredient beta-cyfluthrin.

**12.2 Persistence and degradability**

**Biodegradability**                      Beta-Cyfluthrin:  
Not rapidly biodegradable  
Imidacloprid:  
Not rapidly biodegradable

**Koc**    Beta-Cyfluthrin: Koc: 508 - 3179  
Imidacloprid: Koc: 225

**12.3 Bioaccumulative potential**

**Bioaccumulation**                      Beta-Cyfluthrin: Bioconcentration factor (BCF) 506  
Does not bioaccumulate.  
Imidacloprid:  
Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility in soil**                              Beta-Cyfluthrin: Immobile in soil  
Imidacloprid: Moderately mobile in soils

**12.5 Other adverse effects**

**Additional ecological information**                      No other effects to be mentioned.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Metal drums and plastic containers:  
Triple 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.

**SECTION 14. TRANSPORT INFORMATION**

**ADG**

UN number	<b>3082</b>
Transport hazard class(es)	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**



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UN number	<b>3082</b>
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BETA-CYFLUTHRIN, IMIDACLOPRID SOLUTION)

**IATA**

UN number	<b>3082</b>
Transport hazard class(es)	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: 64371

**SUSMP classification (Poison Schedule)**

Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons)

**SECTION 16. OTHER INFORMATION**

**Trademark information** Tempo® is a registered trademark of the Bayer Group.

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.

**Abbreviations and acronyms**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
AU OEL	Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)



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CAS-Nr.	Chemical Abstracts Service number
CEILING	Ceiling Limit Value
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
OES BCS	OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"
PEAK	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.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN	Skin sensitiser
SKIN_DES	SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL	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.
TWA	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.
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

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

END OF SDS