



# MATERIAL SAFETY DATA SHEET

## ZERO MOLE CRICKET

**Date Issued:** May 2014 and is valid for 3 years from this date.

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**Revision:** 4

**Print Date:** 3/10/14

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### 1. PRODUCT AND COMPANY IDENTIFICATION

**TRADE NAME:** ZERO MOLE CRICKET

**SUPPLIER:** EFEKTO

PO BOX 652147

BENMORE

2010

**TEL No.** 011 287 5700

**EMERGENCY TELEPHONE NUMBERS:**

**SPILLAGES:** 083 1233 911

**Fax:** 086 685 3129

**POISONINGS:**

**National Poison Centre** 021-9386084 (office hours).

021-9316129 (after hours).

082 446 8946

**Use:** An emulsifiable concentrate contact and stomach poison for the control of Mole Crickets on lawns and turf grass.

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### 2. HAZARDS IDENTIFICATION

- May cause irritation.
- Very toxic to aquatic organisms.

**Routes of entry:**

Ingestion, inhalation, eyes and skin contact.

**Human health:**

Untoward effects resulting from over-exposure are not anticipated to occur.

**Skin Contact:** Harmful if absorbed through skin. Avoid contact with skin or clothing. May produce symptoms similar to those from ingestion. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse

**Eye Contact:** Causes eye irritation. Avoid contact with eyes.

**Ingestion:** Harmful if swallowed. May cause shortness of breath, involuntary shaking, convulsions, excitement.

**Inhalation:** Harmful if inhaled. Avoid breathing dust. May produce symptoms similar to those from ingestion.

**Long term effects:** This product does not contain any ingredients designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.



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**Hazard symbols:** Xn; N  
**Risk Phrases :** R38; R48/22; R50/53

**UN No:** 3082  
**Class:** 9

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Active ingredients:

Active ingredients.	CAS No.:	EC No.:
Fipronil 25.0 g/l	120068-37-3	424-610-5

#### Chemical Name:

(±)-5-amino-1-(2,6-dichloro- $\alpha,\alpha,\alpha$ -trifluoro-*p*-tolyl)-4-trifluoro=methylsulfinylpyrazole-3carbonitrile (IUPAC)

**Chemical Family:** phenyl pyrazole

**Chemical Formula:** C<sub>12</sub>H<sub>4</sub>ClF<sub>6</sub>N<sub>4</sub>OS

**NIOSH/RTECS No.:** -

### 4. FIRST-AID MEASURES

Symptoms of poisoning includes, respiratory difficulty, decreased reflexes, lethargy, tremors, and in severe cases, convulsions. Repeated exposure at dose levels that are not acutely toxic may result in symptoms of toxicity.

#### Skin Contact:

Wash the affected area with soap and water.

#### Eye Contact:

Flush/irrigate eyes with copious amounts of water for at least 10 minutes.

#### Ingestion:

Do not induce vomiting.

Check the victim's state of consciousness, breathing and pulse; put in emergency position or revive.

Obtain medical attention if more than a small quantity has been swallowed or when relevant symptoms occur after swallowing.

#### Inhalation:

Remove from source of exposure. Obtain medical advice if ill effects occur.

#### Advice to physician:

Fipronil is a reversible gamma-amino butyric (gaba) receptor inhibitor. During intoxication it will induce neurological stimulation with possible convulsions. Treat symptoms.

There is no antidote for this product. Phenobarbital and some Benzodiazepines have been shown experimentally to be effective in preventing convulsions induced by Fipronil.

### 5. FIRE-FIGHTING MEASURES



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**Extinguishing agents:**

Extinguish small fires with water, carbon dioxide, dry powder, or alcohol-resistant foam. Water can be used if necessary.

**Fire fighting:**

Remove containers from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent. Water can be used to cool unaffected containers. Avoid inhaling hazardous vapours. Keep upwind.

**Personal protective equipment:**

Fire may produce irritating or poisonous vapours, mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

**Hazardous decomposition:**

Danger of toxic gases in smoke. (Carbon and Nitrogen oxides).

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### 6. ACCIDENTAL RELEASE MEASURES

**Spills:**

Any spillage of this product should be swept up and placed in a clean, labeled open container for safe disposal. Depending on the degree and nature of contamination, dispose of by sending it to an authorised waste disposal facility.

Take care to avoid the contamination of watercourses and drains and inform the appropriate authority in case of accidental contamination of watercourses.

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### 7. HANDLING AND STORAGE

**Handling:**

Avoid contact with eyes. Avoid frequent or prolonged skin contact. Good working practices, high standards of personal hygiene and plant cleanliness must be maintained at all times. Wash hands thoroughly after contact.

**Storage Conditions:**

Store under cover and in a cool place. Keep out of reach of children. Adhere to local regulations.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:** There is no appropriate occupational exposure limit for this material. Avoid, as far as reasonably practicable, inhalation of vapor generated during use.

**Protective Clothing:**

Wear suitable gloves when handling the product over long periods.

Wash any contaminated underlying skin with soap and water.

**Respiratory Protection:** Wear respiratory protection if ventilation is inadequate.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES



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<b>Appearance:</b>	Liquid
<b>Colour:</b>	Yellowish
<b>Odour:</b>	Odourless
<b>Flammability:</b>	Not Flammable.
<b>Flash point:</b>	80°C
<b>Relative density:</b>	0.856 g/l
<b>pH:</b>	3.1- 3.33[1% Sol.]
<b>Water solubility:</b>	Emulsifiable

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### 10. STABILITY AND REACTIVITY

**Materials to Avoid:**

Avoid contact with strong oxidizing agents.

**Hazardous Decomposition Products:**

Thermal decomposition products will vary with conditions.

Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide.

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### 11. TOXICOLOGICAL INFORMATION

**Experimental/calculated data:**

**Acute oral LD<sub>50</sub>:** > 2000 mg/kg.[EC]

**Acute dermal LD<sub>50</sub>:** > 2000 mg/kg.

**Acute inhalation 4h LC<sub>50</sub>:** >5.03mg/l air (EC).

**Acute skin irritation:** Irritant.

**Acute eye irritation:** Could cause slight irritation to eyes.

**Dermal sensitization:** None.

**Carcinogenicity/ Teratogenicity/ Mutagenicity:**

None of the ingredients in this product is on the IARC, OSHA or NTP carcinogen list.

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### 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGY:**

**Birds LC<sub>50</sub>:**

Mallard duck: >2150 mg/kg.

Pheasant: 31, 0 mg/kg

**Fish:**

Toxic to fish and aquatic organisms.

**Fish LC<sub>50</sub>:**

**Toxicity to fish:**

**Oncorhynchus mykiss/LC<sub>50</sub> (96 h):** 3.76 mg/l

**Aquatic invertebrates:**

**Daphnia magna/EC<sub>50</sub> (48 h):** 0.06 mg/l

**Aquatic plants:**



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Scenedesmus subspicatus/EC<sub>50</sub> (72 h): 0.068 mg/l

**Earthworms:** Non-toxic to earthworms.

**Mobility:** Fipronil has low mobility in soil.

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### 13. DISPOSAL CONSIDERATIONS

**Product:**

Where possible, arrange for product to be recycled. Depending on degree and nature of contamination, dispose of in a approved landfill site or by sending to an authorized waste facility.

**Packaging:**

Dispose of via an authorized person/ licensed waste disposal contractor in accordance with local regulations.

Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

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### 14. TRANSPORT INFORMATION

**U N No:** 3082

**ADR/IRD:**

**Proper shipping name:** Environmentally hazardous substance liquid, n.o.s. (Fipronil)

**Class:** 9

**Classification code:** M 6

**Hazard ID NR:** 90

**Label:** 9

**AIR/IATA:**

**Proper shipping name:** Environmentally hazardous substance liquid, n.o.s. (Fipronil)

**Class:** 9

**Hazard Label:** Miscellaneous

**Packaging group:** III

**Passenger aircraft:** Y914 (30Kg), 914 (No Limit)

**Cargo aircraft:** 914 (No limit)

**IMG/IMO:**

**Proper shipping name:** Environmentally hazardous substance liquid, n.o.s. (Fipronil)

**Packaging group:** III

**Label of class:** 9

**Tremcard no:** 90GM6-III

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### 15. REGULATORY INFORMATION

**Hazard Symbols:** Xn - Harmful.

N - Dangerous for the environment.

**R-phrases(s)**

**R48/22** Harmful: danger of serious damage to health by prolonged exposure if swallowed.



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**R50/53** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrase(s)**

**S2** Keep out of the reach of children.

**S13** Keep away from food, drink and animal feeding stuffs.

**S20/21** When using do not eat, drink or smoke.

**S35** This material and its container must be disposed of in a safe way.

**S36/37** Wear suitable protective clothing and gloves.

**S57** Use appropriate container to avoid environmental contamination.

**S62** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

**National legislation:** In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993)

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### 16. OTHER INFORMATION

**Compiled by:** Danie Fourie

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

### REFERENCES

- BASF Germany, Termidor MSDS, May 2005.
- ADR 2011, Part 3.
- IMDG Code, 2005 Edition, Vol. 2.
- IATA Dangerous goods regulations, Effective 1 January 2011

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**END OF MSDS.**