



Material Safety Data Sheet

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Infosafe No. 3NU40 Issue Date : April 2007 ISSUED by NUFARM

Product Name : **IMPEDE® Insecticide**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name IMPEDE® Insecticide
Product Code 1069
Product Type Group 2C Insecticide
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 24hr 1800 033 498
Telephone/Fax Number Tel:
(03) 9282-1000
Fax:
(03) 9282-1001
Recommended Use For the control of Argentine Stem Weevil, Funnel Ants and Mole Crickets in recreational, domestic and commercial turf as specified in the directions for use table.
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. HAZARDS IDENTIFICATION

Hazard Classification NON-HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid

Ingredients	Name	CAS	Proportion
	Inert fillers		>60%
	Fipronil	120068-37-3	1 g/Kg

4. FIRST AID MEASURES

Inhalation Remove affected person to fresh air until recovered.
If symptoms develop or persist, seek medical advice.
Ingestion If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
The fipronil component in the product is at very low concentration, thus acute health effects are unlikely to occur other than by massive exposure.
Skin If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water.
Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
Seek medical advice immediately.
First Aid Facilities If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor Fipronil is a reversible gamma-aminobutyric (GABA) receptor inhibitor. During intoxication it will induce neurological stimulation with possible convulsions. Treat symptoms. No specific antidote known. Phenobarbital, and to a lesser extent, benzodiazepines, have been shown experimentally to be effective in preventing convulsions induced by fipronil. Due to slow



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absorption of fipronil through the gut, symptoms of intoxication may be delayed several hours to one day. Absorption may be decreased by the use of gastric lavage, saline purgative and activated charcoal (possible enterohepatic recirculation). Continue monitoring - due to slow elimination of the compound.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Hazards from Combustion Products	If involved in a fire, the dehydrated components may emit oxides of carbon, nitrogen and sulphur and compounds of chlorine and flourine.
Special Protective Equipment for fire fighters	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
Specific Hazards	Considered low risk due to water content, however upon evaporation of water the product is combustible.
Hazchem Code	None Allocated
Other Information	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material and waste in sealable open-top type containers for disposal.
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7. HANDLING AND STORAGE

Conditions for Safe Storage	Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this product by Worksafe Australia, however, the TWA exposure standard for dusts not otherwise specified is 10 mg/m ³ .
Engineering Controls	Use in a well ventilated area only.
Personal Protective Equipment	It is good practice to wear suitable personal protective equipment (PPE). When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.
Hygiene Measures	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.
Requirements Concerning Special Training	NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials. By 1st September, 2005 all users must have received such training.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid
Appearance	Grey coloured granule
Odour	None
Solubility in Water	Disperses in water.
pH Value	4.7 (1% w/w)
Vapour Pressure	3.7 x 10 ⁻⁴ mPa @ 25°C for fipronil
Octanol/Water Partition Coefficient	Kow Log P is 4.0 for fipronil
Flammability	Not flammable



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10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions.
Hazardous Polymerization Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Inhalation Inhalation of dust of this very dilute material is unlikely to result in any toxic effects attributable to fipronil.
Ingestion Possible symptoms of exposure include: headache, nausea, dizziness and weakness.
Ingestion of large quantities of the concentrate may result in convulsions.
Skin Not a skin irritant and not harmful by dermal exposure.
Eye May irritate the eyes.
Reproductive Toxicity Data indicates no reproductive effects.
Mutagenicity Data indicates no mutagenic effects.
Carcinogenicity Data indicates no carcinogenic effects.
Acute Toxicity - Oral LD50 (rat) >5000 mg/kg for the formulated product
Acute Toxicity - Dermal LD50 rat >2000 mg/kg for the formulated product
Eye Irritation Mild eye irritant.
Skin Sensitisation Product is not a skin sensitiser.
Other Information The Australian Acceptable Daily Intake (ADI) for fipronil for a human is 0.0002 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.02 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, September 2006).

12. ECOLOGICAL INFORMATION

Other Precautions Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Do not allow any birds or animals to feed on treated turf.
Acute Toxicity - Fish The following is data for the active ingredient, fipronil.
LC50 (96 hr) for rainbow trout is 0.248 mg/l.
LC50 (96 hr) for european carp is 0.430 mg/l.
LC50 (96 hr) for bluegill sunfish is 0.085 mg/l.
Acute Toxicity - Daphnia LC50 (48 hr) for daphnia is 0.19 mg/l for fipronil.
Acute Toxicity - Other Organisms The following data is for the active ingredient, fipronil.
LD50 for mallard duck is 5000 mg/kg
LD50 for bobwhite quail is 48 mg/kg
Highly toxic to bees both by direct contact or by ingestion.

13. DISPOSAL CONSIDERATIONS

Product Disposal On site disposal of the concentrated product is not acceptable.
Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
Container Disposal Do not use this container for any other purpose.
Shake the last amount of product from the container into the dusting container.
Do not dispose of undiluted chemicals on site. Puncture or shred and bury empty containers in a local authority landfill.
If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.



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For small containers: dispose of empty container by wrapping in paper, placing in a plastic bag, and putting in the garbage.
Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

U.N. Number None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated
Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

Poisons Schedule S5
Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information.
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