

Material Safety Data Sheet

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Infosafe No. 1BFPY Issue Date: March 2003 ISSUED by BASFANZ

Product Name: **Semevin Super Seed Dressing Insecticide**

Classified as hazardous according to criteria of NOHSC

COMPANY DETAILS

Company Name BASF Australia Limited (ABN 62 008 437 867)
Address 500 Princes Highway Noble Park
Victoria 3174 Australia
Emergency Tel. 1800 803 440 (24h)
Tel/Fax Tel: +61 3 9212 1500 Fax: +61 3 9212 1511
Other Information BASF New Zealand Ltd
38 Mahunga Drive Mangere Bridge
Auckland New Zealand
Phone: +64 9 633 0200
Fax: +64 9 633 0265
Emergency advice: 0800 944 955 (24h)
National Poisons Centre - 24 hour Urgent Information: 0800 764 766
National Poisons Centre - Non-Urgent Information: +64 3 479 7248

IDENTIFICATION

Product Name Semevin Super Seed Dressing Insecticide
Proper Shipping Name CARBAMATE PESTICIDES, LIQUID, TOXIC, N.O.S. - (CONTAINS THIODICARB)
UN Number 2992
DG Class 6.1
Packing Group II
Hazchem Code 2X
Poisons Schedule S6
Product Use Agricultural insecticide for cotton seed treatment.
Substance Chemical Family Oxime carbamate and phenyl pyrazole

Physical Data

Appearance Viscous cream coloured liquid with slight sulphurous odour.
Melting Point Not Available
Boiling Point Approx. 100C
Vapour Pressure Not determined.
Specific Gravity 1.18 g/mL at 20C
Flash Point Non flammable.
Flamm. Limit LEL Not applicable.
Flamm. Limit UEL Not applicable.
Solubility in Water Miscible, but not soluble.

Other Properties

pH Value 4.5-5.5
Form Suspension concentrate.

Ingredients

| Ingredients | Name | CAS | Proportion |
|-------------|-------------------|-------------|------------|
| | Fipronil | 120068-37-3 | 700g/L |
| | Diacetone alcohol | 123-42-2 | 80g/L |
| | Thiodicarb | 59669-26-0 | 400g/L |

HEALTH HAZARD INFORMATION

Health Effects

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Acute - Swallowed Poisonous if swallowed. This product contains thiodicarb, a reversible cholinesterase inhibitor. Exposure may cause toxic signs and symptoms due to the stimulation of the parasympathetic nervous system. Symptoms include nausea, vomiting, diarrhoea, pinpoint pupil, blurred vision, excess salivation, profuse sweating, abdominal cramps, muscular weakness, bronchial hypersecretion, dyspnoea, anxiety, temporary paralysis, respiratory depression, confusion and in severe cases, convulsions. Repeated minor exposure may have a cumulative poisoning effect.

Acute - Eye Will irritate the eyes.

Acute - Skin Harmful if absorbed by skin contact. May produce symptoms similar to those from ingestion. May irritate the skin.

Acute - Inhaled Poisonous if inhaled. May produce symptoms similar to those from ingestion.

Chronic Technical Thiodicarb:
Thiodicarb is not teratogenic or carcinogenic in animal studies. Two of the nine in vitro mutagenicity studies with thiodicarb were positive, while an in vivo mutagenicity study in rats was negative. The weight of evidence in vivo suggests that thiodicarb is not a mutagen.
Technical Fipronil:
Fipronil is not mutagenic and not teratogenic and is not considered to pose an increased risk of cancer to humans.

First Aid

Swallowed Wash out mouth with water. Do not induce vomiting. Give a glass of water. Keep patient at rest and seek medical advice as above. If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly.

Eye Rinse immediately with clean water, including under eyelids, for at least 15 minutes and obtain medical advice.

Skin Remove contaminated clothing. Wash affected areas with plenty of soap and water. Give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly.

Inhaled If inhaled, remove victim to fresh air. Give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly. If breathing is difficult, administer oxygen if available. If breathing stops, administer CPR (cardio-pulmonary resuscitation).

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 Material Safety Data Sheet to a doctor.

First Aid Facilities Ensure washing facilities are available. Obtain an emergency supply of atropine tablets 0.6mg.

Other Information DO NOT attempt to give anything to a semi-conscious or unconscious person.

Advice to Doctor

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Advice to Doctor This product contains approximately 34% thiodicarb and 7% fipronil. The following information is provided for each of these active ingredients, rather than the combination.

Thiodicarb is a carbamate insecticide, which is a rapidly reversible cholinesterase inhibitor.

Brief summary of signs and symptoms:
Local: Slight skin and eye irritation
Systemic: Headache, perspiration, lacrimation and salivation, flushing, dizziness, nausea, vomiting and diarrhoea. Abdominal pain, chest tightness, hypotension and bradycardia. Blurring of vision, muscular twitching, convulsions and depression of the respiratory centre.

Treatment:
For local contamination, treatment should be symptomatic and supportive. In case of skin or eye contamination, treat as documented above under First Aid. Care should be taken to avoid personal contamination.

In case of systemic poisoning, the following measures should be taken:
Monitor respiratory, cardiac and central nervous system.
Monitor red blood cell and plasma cholinesterase, and ECG.
Carry out gastric lavage and charcoal administration.
Endotracheal intubation and artificial respiration as necessary.
If necessary, anticonvulsant therapy with diazepam i.v.
Atropine sulphate is an antidote. Administer 2mg i.v., repeated until fully atropinised. Good oxygenation is essential for the tolerance of atropine.

The medical advice for ingestion of thiodicarb, one of the active ingredients in this product, recommends induction of vomiting under the following circumstances:

1. If patient is fully conscious
2. If less than 30 minutes after ingestion

Contraindications: Oximes (pralidoxime, obidoxime), succinyl choline, aminophiline, morphine unless under controlled ventilation

Recovery is expected to be spontaneous.

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 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.

Other Health Hazard Information

PRECAUTIONS FOR USE

Exposure Limits No exposure standard has been assigned by the National Occupational Health and Safety Commission (Worksafe Australia). BASF recommends a Permissible Exposure Limit of 4mg/m³ for thiodicarb.

Eng. Controls Control process conditions to avoid contact. Use local exhaust ventilation during manufacture. Use in a well-ventilated area only.

Personal Protection

Respirator Type (AS 1716) Wear a half-facepiece respirator with combined dust and gas cartridge.

Eye Protection Face shield.

Glove Type Elbow-length PVC gloves.

Clothing Cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat and impervious footwear.

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Other Information After each day's use, wash gloves, faceshield, respirator and if rubber wash with detergent and warm water and contaminated clothing.

Flammability

Fire Hazards Not flammable.

SAFE HANDLING INFORMATION

Storage and Transport

Storage Precautions Store in the closed, original container in a dry, cool, well-ventilated area. Do NOT store for prolonged periods in direct sunlight.

Transport The product is classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail: PESTICIDE, LIQUID, TOXIC, N.O.S. (contains fipronil), Class: 6.1, PG II, UN 2902. Must be stored and transported according to local, State/Territory and Federal regulations.

Proper Shipping Name CARBAMATE PESTICIDES, LIQUID, TOXIC, N.O.S. - (CONTAINS THIODICARB)

EPG Number 6B5

IERG Number 34

Packaging Method 5.9.6.1

Spills and Disposal

Spills & Leaks When dealing with spills wear personal protective clothing and equipment as described in the 'Personal Protection' section. Keep people and animals away and upwind. Prevent contamination of drains and sewers and watercourses. Contain spill and absorb with earth, sand, clay or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. Any spillage of treated seed must be cleaned up promptly, preferably by recovery and re-use.

Disposal When returnable container is empty or contents no longer required, return it to the point of purchase. For non-returnable containers, triple or preferably pressure rinse containers before disposal. Add rinsings to treatment mixture. Do not dispose of undiluted chemicals on site. Wash sprayer thoroughly after use. 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 500mm in a disposal pit specifically marked and set up for the purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. If disposal of treated seed is required, ensure treated seeds are thoroughly buried and not accessible to livestock, birds and other wildlife.

Fire/Explosion Hazard

Fire Fighting Procedures Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715, 1716). Toxic decomposition products may be produced in a fire. Isolate area. Keep unnecessary people away and upwind. If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Whenever possible, contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water. Dispose of fire control water and spillage later. Persons exposed to contaminated smoke should be examined by a doctor for symptoms of poisoning.

Extinguishing Media Carbon dioxide, water spray, dry agent, foam.

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Stability and Reactivity Stable under normal conditions of use. Avoid extreme heat. Materials / chemicals to be avoided: brass, iron chlorides, rust, bases, mineral acids, metal salts, cupric chloride. Semevin Super is unstable under highly acidic or highly alkaline conditions. Thermal decomposition products may include oxides of carbon, sulphur and nitrogen, acetonitrile, dimethyl sulfide, methomyl and compounds of chlorine and fluorine.

Hazchem Code 2X

Other Information Neutralising chemicals: Hydrated lime.

OTHER INFORMATION

Toxicology Animal toxicity data (thiodicarb):
Oral LD50 (mg/kg): 66 (species: rat)
Dermal LD50 (mg/kg): >2000 (species: rabbit)
Inhalation LC50 (mg/L) (4 hr): 0.12 (species: rat)
Animal toxicity data (fipronil):
Oral LD50 (mg/kg): 97 (species: rat)
Dermal LD50 (mg/kg): >2000 (species: rat)
Dermal LD50 (mg/kg): 354 (species: rabbit)
Inhalation LC50 (mg/L) (4 hr): 0.682 (species: rat)

Information on Ecological Effects This product is highly toxic to fish and aquatic invertebrates. Toxic to galliform birds and related species.
Technical thiodicarb:
LC50 (96hr) for rainbow trout >3.3 mg/L (flow through)
LC50 (96hr) for bluegill sunfish 1.4 mg/L (flow through)
EC50 for Daphnia magna (48hr) 0.027 mg/L (flow through)
Dietary LC50 (8 days) for mallard ducks >5620 mg/kg
Dietary LC50 (8 days) for bobwhite quail > 5620 mg/kg
IC50 for algae >18mg/L
(Technical Fipronil)
Acute LC50 (96hr) for rainbow trout 0.248 mg/L
Acute LC50 (96hr) for European carp 0.430 mg/L
Acute EC50 for Daphnia magna (48hr) 0.19 mg/L
Acute oral LD50 for mallard ducks >2150 mg/kg
Acute oral LD50 for pheasants 31 mg/kg
Acute oral LD50 for bobwhite quail 11.3 mg/kg
DO NOT contaminate streams, rivers or waterways with the chemical, used containers or bags which have held treated seed. DO NOT feed treated seed or otherwise expose to wild or domestic birds.

References Bayer CropScience product safety data August 1, 2002

CONTACT POINT

Contact Regulatory Affairs Officer (Aus) Tel: +61 3 9281 6346 Fax: +61 3 9281 6320
Business Support (NZ) Tel: 0800 932 273 Fax: 0800 940 000

This MSDS 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. It should be read taking into account how the product is handled in your particular situation and how it is used in conjunction with other products.
...End Of MSDS...