

# MATERIAL SAFETY DATA SHEET



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## STATEMENT OF HAZARDOUS NATURE

Hazardous according to criteria of National Occupational Health & Safety Commission.  
R22 - Harmful if swallowed.

## COMPANY DETAILS:

Company: Bayer CropScience Pty Ltd A.B.N. 87 000 226 022  
Address: 391-393 Tooronga Road, East Hawthorn, Victoria 3123  
Australia  
Telephone/Facsimile: (03) 9248 6888/(03) 9248 6800  
Website Address: www.bayercropscience.com.au  
Emergency Telephone Number: 1800 033 111 – Orica SH&E Shared Services

## IDENTIFICATION

Product Name: **Bugmaster® Flowable Insecticide**  
Other Names: Sevin® Flo  
Manufacturer's Product Code: Not available  
SAP Product Code: 16958 (5 L), 16963 (20 L)  
UN Number: Not applicable\*  
Dangerous Goods Class and Subsidiary Risk: Not regulated for transport by road and rail. \*Class 9 for transport by sea – Marine Pollutant. See Page 4.  
Hazchem Code: Not applicable\*  
Proper Shipping Name: Not applicable\*  
Packing Group: Not applicable\*  
EPG: Not applicable\*  
Chemical Family: Carbamate  
Poisons Schedule Number: 6  
Use: For use as an agricultural insecticide.

## Physical Description/Properties

Appearance: A viscous, dark, cream colored liquid  
Melting Point: 142°C (technical carbaryl)  
Vapour Pressure: 4.1 x 10<sup>-2</sup> mPa at 23.5°C (technical carbaryl)  
Specific Gravity: 1.106 at 20°C  
Flashpoint: Non flammable  
Flammability Limits: Not determined  
Solubility in Water: Forms a suspension in water  
Formulation: Suspension concentrate

## Other Properties:

pH: 4.0

## Ingredients:

Chemical Name:	CAS Number:	Proportion g/L:
Carbaryl	63-25-2	500
Other ingredients, including water	(non hazardous)	606

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## HEALTH HAZARD INFORMATION

### Health Effects:

#### *Acute:*

Swallowed: Harmful if swallowed. Symptoms include: nausea, vomiting, diarrhoea, abdominal pain, involuntary shaking, excessive salivation, pinpoint pupils, blurred vision, profuse sweating, temporary paralysis, respiratory depression, convulsions.

Eye: May cause redness, irritation, tearing.

Skin: Product is poisonous if absorbed by skin contact. Symptoms are similar to those under "Swallowed".

Inhaled: May be harmful if inhaled. Symptoms are similar to those under "Swallowed".

*Chronic:* None of the ingredients of this product is listed as carcinogenic. Carbaryl has been shown to cause tumours in laboratory animals in lifetime feeding studies. Carbaryl, when administered by various routes, at doses toxic to the maternal animals, has been shown to produce developmental toxicity in a number of species. Carbaryl produces no teratogenic effect in the absence of maternal toxicity. The no effect level has been determined to be 2 mg/kg bw/day by the Therapeutic Goods Administration.

### First Aid

**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.**

Swallowed: If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly.

Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Seek medical assistance.

Skin: If poisoned by skin absorption remove any contaminated clothing, wash skin thoroughly and give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly.

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 breathing has stopped, administer cardio-pulmonary resuscitation.

First Aid Facilities: Ensure washing facilities are available.

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**Advice to Doctor:** This product contains a carbamate insecticide, which is a reversible cholinesterase inhibitor. Administer atropine. Oximes (e.g. pralidoxime) are contraindicated.

**Other First Aid** DO NOT attempt to give anything to a semi-conscious or unconscious person.

## PRECAUTIONS FOR USE

**Exposure Standards:** TWA (NOHSC and ACGIH) for carbaryl is 5 mg/m<sup>3</sup>.  
Exposure standard – Time Weighted Average (TWA) means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

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

**Personal Protection:**

- Eyes:** Avoid contact with eyes; wear chemical safety glasses or goggles.
- Clothing:** Wear full-length work clothes.
- Gloves:** Wear elbow-length PVC gloves.
- Respiratory:** Do not inhale spray mist. Wear a half facepiece respirator with particulate and gas filter if inhalation of spray is possible.
- Other:** If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, glasses or goggles and contaminated clothing.

**Flammability:** Non flammable.

**Other Use Precautions** To be used strictly in accordance with label instructions. Workers regularly exposed to this product should have pre-exposure and periodic red blood cell cholinesterase level checks.

## SAFE HANDLING INFORMATION

### **Storage and Transport:**

**Corrosivity Hazards:** None known

**Handling & Storage Precautions:** Keep out of reach of children and animals. Avoid contact with the eyes, skin and clothing or inhalation of product. Wear long sleeved overalls and gloves while handling. After handling and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. Store in the closed, original container in a dry, cool, well-ventilated area, out of direct sunlight. Store in a locked room or place

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away from children, animals, food, feedstuffs, seed and fertilizers.

## SAFE HANDLING INFORMATION

**Transport:** The product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail. However, as carbaryl is a Marine Pollutant, Bugmaster Flowable Insecticide is classified as "ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains carbaryl), Class 9, Packing Group III, UN 3082, MARINE POLLUTANT for transport by sea. The applicable Dangerous Goods – Emergency Response Guide No. is 47.

### Spills and Disposal:

**Spillage or Leak Procedures:** Avoid contact with eyes, skin and clothing or inhalation of product. Wear protective clothing and equipment as described in previous section. Contain spill and absorb with earth, sand, clay or other absorbent material and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. Keep people away and upwind. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority. Observe spill reporting and waste disposal regulations.

**Waste Disposal Methods:** Triple, or preferably, pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers or product should not be burnt.

### Fire/Explosion

#### Hazard:

**Extinguishing Media:** Water, foam, dry agent, carbon dioxide

**Special Fire Fighting Procedures:** Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715, 1716). Keep unnecessary people away, isolate hazard area and deny entry. Evacuate residents who are exposed to downwind fire. Bund area to prevent runoff and contamination of water sources. Dispose of fire control water later. Persons who may have been exposed to contaminated smoke should be immediately examined by a doctor and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation. Keep intact containers cool by spraying with water.

**Reactivity Hazards:** Stable under normal conditions of use. Avoid extreme heat and fire - may give off oxides of carbon, nitrogen and traces of methyl isocyanate. This product will be hydrolysed by alkalis. Avoid strong acids and alkalis.

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Other Safe Handling: Neutralizing Chemicals: Not needed.

## OTHER INFORMATION:

Toxicology: (technical carbaryl)	Oral LD <sub>50</sub> (mg/kg)	850	Species	Male rat
		500	Species:	Female rat
		710	Species:	Rabbit
Dermal LD <sub>50</sub> (mg/kg)	>4,000	Species:	Rats	
	>2,000		Rabbit	
Inhalation LC <sub>50</sub> (mg/L)	2.50 (4 hour)	Species:	Rat	
Skin irritation	Minimal irritation	Species:	Rabbit	
Eye irritation	Minimal irritation	Species:	Rabbit	

Environmental / Ecological Effects: Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.  
Harmful to aquatic life. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.  
LC<sub>50</sub> (96 h) (technical carbaryl) for rainbow trout 1.3 mg/L; for bluegill sunfish 10 mg/L; for sheepshead minnow 2.2 mg/L.  
EC<sub>50</sub> (48 h) (technical carbaryl) for Daphnia 0.006 mg/L.  
Acute oral LD<sub>50</sub> (technical carbaryl) for young mallard ducks >2,179 mg/kg; for young pheasants >2,000 mg/kg; for Japanese quail 2,230 mg/kg; for pigeons 1,000-3,000 mg/kg.

Special Precautions / Comments: None

Data Sources / References: Bayer CropScience product safety data and published data

## CONTACT POINT:

Emergency Contact Number: 1800 033 111 (Orica SH&E Shared Services)  
Development Manager: (03) 9248 6888

This MSDS summarizes 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 MSDS 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.

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