

MATERIAL SAFETY DATA SHEET



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STATEMENT OF HAZARDOUS NATURE

Hazardous according to criteria of National Occupational Health and Safety Commission.
R22 – Harmful if swallowed.

COMPANY DETAILS:

Company: Bayer CropScience Pty Ltd ABN 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: **Orthene® Xtra Insecticide**
Other Names: Orthene Pellets
Manufacturer's Product Code: TP-AUS013
SAP Product Code: 17113 (1 kg), 17251 (5 kg)
UN Number: Not applicable
Dangerous Goods Class and Subsidiary Risk: Not classified as dangerous goods for transport by road or rail
Hazchem Code: Not applicable
Proper Shipping Name: Not applicable
Packing Group: Not applicable
EPG: Not applicable
Chemical Family: Organophosphorus
Poisons Schedule Number: 6
Use: Agricultural insecticide

Physical Description/Properties

Appearance: White or blue pellets with strong cabbage-like odour
Vapour pressure: 0.226 mPa at 24° C (technical acephate)
Boiling Point/Melting Point: Melting point 82 - 89° C (technical acephate)
Bulk Density: 0.66 kg/L
Flashpoint: Not applicable
Flammability Limits: Not applicable
Solubility in Water: Soluble

Other Properties:

pH: 3.5 to 6.0
Formulation: Water soluble granule

Ingredients:

Chemical Name:	CAS Number:	Proportion g/kg:
Acephate	[30560-19-1]	970
Other ingredients	(non hazardous)	30

ORTHENE XTRA INSECTICIDE

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HEALTH HAZARD INFORMATION

Health Effects:

Acute:

The active ingredient in Orthene Xtra, acephate, is an organophosphorus cholinesterase inhibitor. Symptoms of poisoning that may be seen within several hours include (for all routes of entry): Headache, dizziness, weakness, pinpoint pupils, blurred vision, excessive salivation or nasal discharge, profuse sweating, abdominal cramps, nausea, diarrhoea and vomiting. Severe poisonings may result in incontinence, unconsciousness, convulsions and death.

Swallowed:

Poisonous if swallowed.

Eye:

Will irritate the eyes.

Skin:

Poisonous if absorbed by skin contact. For symptoms of poisoning, see above. May be slightly irritating to the skin.

Inhaled:

Poisonous if inhaled. For symptoms of poisoning, see above. Exposure to high concentrations of dust may result in respiratory irritation.

Chronic:

Repeated minor exposure may have a cumulative poisoning effect. The main health effects from repeated exposure would be toxic symptoms of cholinesterase inhibition as described above. Acephate is not teratogenic or mutagenic. High doses of acephate have produced cancer in female mice but not in male mice or rats. There is no evidence that it causes cancer in humans. The US EPA has classified acephate as a Group C – possible human carcinogen. It is not listed as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research in Cancer (IARC), or the Occupational Safety and Health Administration (OSHA). There has been some evidence of reproductive effects in animal studies with acephate.

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.

Do not attempt to give anything by mouth to a semi-conscious or unconscious person.

Swallowed:

If swallowed, do NOT induce vomiting. Rinse mouth with water. Give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly.

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HEALTH HAZARD INFORMATION – continued

- Eye:** Rinse immediately with clean water for at least 15 minutes and obtain medical aid.
- Skin:** Carefully remove contaminated clothing. Wash affected area with soap and water. If poisoned by skin absorption, give one atropine tablet every 5 minutes until dryness of the mouth occurs. Get to a doctor or hospital quickly.
- Inhaled:** If inhaled, remove to fresh air and keep at rest. Give one atropine tablet every 5 minutes until dryness of the mouth occurs. If not breathing, give artificial respiration. Get to a doctor or hospital quickly.
- First Aid Facilities:** Ensure washing facilities are available. Obtain an emergency supply of atropine tablets 0.6 mg.
- Advice to Doctor:** This product contains the organophosphorus pesticide, acephate, which is a cholinesterase inhibitor.
Symptoms
Symptoms of cholinesterase inhibition (gastrointestinal disturbances, dyspnoea, narrowing of the respiratory passages, bradycardia, miosis, clonic spasms)
Treatment
After basic aid and decontamination procedures, administer atropine sulfate i.v. until signs of atropinisation appear (dry mouth, flushing, and dilated pupils if pupils were originally pinpoint). 2-PAM is also antidotal and may be used in conjunction with atropine, but should not be used alone.

PRECAUTIONS FOR USE

- Exposure Standards:** No exposure standard has been assigned by the National Occupational Health and Safety Commission for the product or its ingredients.
- Engineering Controls:** Control process conditions to avoid contact. Use only in well-ventilated areas.

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PRECAUTIONS FOR USE – continued

- Personal Protection: When handling this product or working with freshly treated crops or plants, the following personal protection is required:
- Eyes: Wear splash proof goggles or face shield.
 - Clothing: Wear cotton overalls buttoned to the neck and wrist and washable hat.
 - Gloves: Wear elbow-length PVC gloves.
 - Respiratory: Wear a half-facepiece respirator with combined dust and gas cartridge if inhalation of dust or spray is possible.
 - Other: 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, face shield or goggles, respirator facepiece and contaminated clothing.
- Flammability: Non flammable.

SAFE HANDLING INFORMATION

Storage and Transport:

Corrosivity Hazards: Not corrosive

Handling & Storage Precautions: Keep out of reach of children. Avoid contact with eyes. Do not inhale dust or spray mist. Store in the closed, original container in a cool, dry, well-ventilated secure area out of direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers.

Transport: Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Spills and Disposal:

Spillage or Leak Procedures: Avoid contact with the spilled material or contaminated surfaces. Do not smoke, eat or drink during the cleanup process. When dealing with spills wear personal protective clothing and equipment as described in the PERSONAL PROTECTION section above. Prevent contamination of drains, sewers and watercourses. Sweep up or shovel spilled material into properly labelled, sealed drums for safe disposal. Avoid creation of dust. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority. Decontaminate tools and equipment following cleanup.

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SAFE HANDLING INFORMATION – continued

Waste Disposal Methods: Single rinse before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. 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. Dispose of waste product via a licensed disposal contractor to an approved landfill.

Fire/Explosion Hazard:

Extinguishing Media: Carbon dioxide, dry chemical, foam, water fog.

Special Fire Fighting Procedures:

Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716), as toxic decomposition products may be produced in a fire. If it can be done safely, remove intact containers from the fire. Bund area to prevent contamination of water sources. Dispose of fire control extinguishing agent and spillage later in a safe manner.

Reactivity Hazards:

Stable at normal ambient temperatures. Acephate can degrade on prolonged exposure to elevated temperatures or at alkaline pH. Avoid contact with alkaline materials. Contact with hypochlorite oxidants may produce noxious gases. Normal combustion forms carbon dioxide, water vapour and may produce oxides of sulphur, nitrogen and phosphorus. Incomplete combustion can product carbon monoxide.

OTHER INFORMATION:

Animal toxicity data:	Oral LD ₅₀ (mg/kg)	846	Species	Rat
	Dermal LD ₅₀ (mg/kg)	> 2000	Species:	Rabbit
	Eye irritation	Mildly irritating	Species:	Rabbit
	Skin irritation	Mildly irritating	Species:	Rabbit
	Sensitisation	Non-sensitising	Species:	Guinea pig

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Environmental /
Ecological Effects
(acephate):

Practically non-toxic to fish. Moderately toxic to birds. Highly toxic to bees.

Fish toxicity:

LC₅₀ (96 h), rainbow trout > 1000 mg/L

LC₅₀ (96 h), bluegill sunfish 2050 mg/L

LC₅₀ (96 h), channel catfish 2230 mg/L

Bird toxicity:

Acute Oral LD₅₀, mallard duck 350 mg/kg

Acute Oral LD₅₀, chicken 852 mg/kg

Acute Oral LD₅₀, pheasant 140 mg/kg

Other:

EC₅₀ (48 h), *Daphnia magna* 67.2 mg/L

EC₅₀ (72 h), algae > 980 mg/L

Readily biodegradable in soil.

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

Special Precautions /
Comments:

Repeated small exposures can have a cumulative effect. Good handling hygiene is required.

Data Sources /
References:

Bayer CropScience and Valent 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 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 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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