



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Acramite Miticide
Other Names: Bifenazate
Product Codes: None allocated
Recommended Use: For control of two-spotted mite, european red mite and bryobia mite in pome and stone fruit.
Chemical Family: Carbazate
Supplier: Chemtura Australia Pty Ltd
ABN: 005 225 507
Street Address: Level 7, 435 King William Street
Adelaide South Australia 5000
Telephone Number: 61 8 8112 0900
Facsimile Number: 61 8 8112 0999
Emergency Telephone: **1800 033 111 (24-hour service)**

2. HAZARDS IDENTIFICATION

Hazard Classification: **HAZARDOUS SUBSTANCE, DANGEROUS GOOD**
Classified according to the criteria of the National Occupational Health and Safety Commission (NOHSC).
Risk Phrases: **Harmful (Xn)**
R20 ...Harmful by inhalation
Safety Phrases: None allocated
Poisons Schedule: None allocated.
Dangerous Goods Class: Class 9. Miscellaneous Dangerous Goods.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Identity	Common Name(s) and Synonym(s)	CAS Number	Proportion by Weight
Bifenazate	Bifenazate	149877-41-8	480g/L

Note: Australian and US Patents apply.

4. FIRST AID MEASURES

Ingestion: If patient is fully conscious, give plenty of water to drink. Do NOT induce vomiting. Seek immediate medical assistance.
Inhalation: Remove to fresh air. Avoid becoming a casualty. Remove contaminated clothing. Keep at rest until fully recovered. Seek medical assistance.
Eye Contact: Hold eye(s) open and flush with water for 15 minutes. Seek immediate medical assistance.
Skin Contact: Wash thoroughly with soap and plenty of water. Remove contaminated clothing and launder before reuse. Seek medical assistance.
Advice to Doctor: Treat symptomatically.
Additional Information: If poisoning occurs contact a doctor or Poison Information Centre. Phone Australia 131 126; New Zealand 03 4747 000.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water fog, dry chemical, CO ₂ , foam or dry chemical. Do not use direct stream of water. Product will float and may reignite.
Hazards from Combustion Products:	Not flammable. Although in case of fire oxides of carbon may be produced on combustion of product. Avoid inhalation of fumes. Reacts with strong acids and alkalis.
Precautions for Fire fighters and Special Protective Equipment:	Fire-fighters to wear self-contained breathing apparatus.
HazChem Code:	2X

6. ACCIDENTAL RELEASE MEASURES

Methods and Materials for Containment and Clean-Up Procedures:	Use personal protective equipment as outlined above to prevent skin and eye contamination. Transfer into secure containers for proper disposal. Do not contaminate watercourses or drains with the product or containers. Do not reuse the container for any purpose. If there is a contamination of crops or waterways, advise emergency services or State Department. <u>For disposal after spill or accident:</u> Dispose of sealed containers at an approved local waste disposal site.
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7. HANDLING AND STORAGE

Precautions for Safe Handling:	Store and transport in accordance with the Australian Code for the Transport of Dangerous Goods by Road & Rail. Marine Pollutant (International Maritime Dangerous Goods Code, 25th amendment).
Conditions for Safe Storage:	Store in original container, away from seeds, fertilizers, animal and human feedstuffs, strong acids and alkalis, sources of direct heat and humidity. Keep dry and out of direct sunlight. Store below 30°C. Keep containers closed when not in use.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National Exposure Standards:	No exposure standard (TWA) allocated.
Engineering Controls:	Ensure ventilation is adequate to minimise vapour exposure. Keep containers closed when not in use.
Personal Protective Equipment (PPE):	Will irritate the eyes. Avoid contact with eyes. When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and disposable mask (mist). When using the prepared spray wear cotton overalls buttoned to the neck and wrist, a washable hat and elbow-length PVC gloves. After each day's use, wash gloves and contaminated clothing. Wash hands after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige liquid
Odour:	Characteristic odour
Boiling Point:	104°C
Melting Point:	Not determined
Solubility:	Not determined
Specific Gravity (Water = 1):	1.08 g/cm ³
Decomposition Temp:	Not available.
Volatility @ 20°C:	Non-volatile.
Flammability Limits (%):	Not available.
Flashpoint:	Flash point not below boiling temperature

10. STABILITY AND REACTIVITY

Chemical Stability:	Not flammable.
Conditions to Avoid:	Reacts with strong acids and alkalis.
Incompatible Materials:	Not determined
Hazardous Reactions:	In case of fire oxides of carbon may be produced on combustion of product. Avoid inhalation of fumes.
Autoignition Temperature:	Determined not to have an autoignition temperature below 400°C.

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11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Ingestion: Practically non-toxic.
Acute Health Effects:	Acute oral LD50 (rat -male) > 5,000 mg/kg Acute oral LD50 (rat -female) > 2,000 mg/kg Eye contact: Slight irritant Skin contact: Non-irritant Acute dermal LD50 (rabbit) > 5,000 mg/kg Inhalation: Irritant Acute inhalation LC50 (rat) > 1.98 mg/L
Chronic Health Effects:	One Year Dog Feeding Study: Bifenazate was fed to male and female Beagle dogs for one year at dietary concentrations of 40, 400 and 1000ppm. The NOEL for chronic toxicity in dogs was 40 ppm (1mg/kg/day). Two Year Rat Feeding Study: Bifenazate was fed to male and female Sprague Dawley rats for two years at dietary concentrations of 20, 80 and 160 (females)/200 (males) ppm, respectively. The NOEL for chronic toxicity in rats was 20 ppm (1mg/kg/day).

12. ECOLOGICAL INFORMATION

Environmental Hazards: Highly toxic to fish and aquatic organisms. Not toxic to birds. Do not apply directly to water or wetlands. Do not contaminate water ways with runoff or equipment rinsings.

Toxicology: Bluegill Sunfish: 96hr LC50 = 0.58 mg/L
Mallard Duck: LC50 = 726 mg/kg
Rainbow Trout: LC50 = 0.26 mg/L
Bob White Quail: LD50 = 1142 mg/kg
Daphnia magna : 48hr LC50 = 0.50 mg/kg

Subchronic Effects:

Bifenazate was administered to rats and dogs at dietary levels up to 400 and 1000 mg/kg/day, respectively for 90 days. Effects included changes in blood chemistry and liver weights in both species. The NOEL for subchronic effects was determined to be 40 ppm in rats and dogs.

Teratogenic Effects:

Bifenazate was administered to pregnant rats and rabbits at levels up to 500 and 200 mg/kg/day respectively. Effects included reductions in body weight gain. No teratogenic effects were noted in either species. The NOEL for maternal and developmental toxicity in rabbits was determined to be 200mg/kg/day.

Mutagenic Effects:

Bifenazate was negative in the Ames, mouse lymphoma, CHO chromosome aberrations and mouse micronucleus assays.

13. DISPOSAL CONSIDERATIONS

Disposal Method(s):	For disposal after spill or accident: Dispose of sealed containers at an approved local waste disposal site. For disposal after normal use: Triple, or preferably pressure, rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point.
Precautions for Landfill or Incineration:	If not recycling, break crush or puncture and bury containers in a local authority landfill. If no landfill 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. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN Number: 3082
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (CONTAINS BIFENAZATE) MARINE POLLUTANT
DG Class & Subsidiary Risk: 9, Miscellaneous Dangerous Goods
Packing Group: III
EPG/GTEPG: Guide 47
Special Precautions for User: Not available
HazChem Code: 2X
Other Information: Not available

15. REGULATORY INFORMATION

Poisons Schedule: This product is not scheduled
Additional Information: APVMA Product No. 55264

16. OTHER INFORMATION

Date of Preparation: April, 2006
Revision Date: March, 2008
Revision Number: 1
Revision Summary: Rev 1 - Update of Chemtura contact details.
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