

Nichino America, Inc.
Miteus™ Miticide/Insecticide

1. IDENTIFICATION

Product Name: Miteus™ Miticide/Insecticide
General Use: Miticide/Insecticide
Product Description: Soluble Concentrate
EPA Reg. No.: 71711-4

Manufacturer
Main Headquarters: Nihon Nohyaku Co., Ltd., Kyobashi OM Building, 19-8
Kyobashi 1-chome, Chuo-ku, Tokyo 104-8386 JAPAN

Non-emergency
information: Phone: **81-3-6361-1423**
Facsimile: **81-3-6361-1451**

Emergency information: Phone: **81-3-6361-1426**

US Connection: Nichino America Inc.
4550 New Linden Hill Road, Suite 501
Wilmington, Delaware 19808, USA
Phone: 302-636-9001
Facsimile: 302-636-9122

Emergency and Health and Safety Inquiries: (800) 348-5832 (24-hours)
In case of fire or spills: (800) 424-9300
In case of international shipments: (703) 527-3887

2. HAZARD(S) IDENTIFICATION

Emergency Overview:

- Odorless whitish liquid
- High acute toxicity to aquatic organisms

Physical Hazards: None

Potential Health Effects: Primary route(s) of entry: Eye, skin, inhalation

Eye contact: Causes reversible eye injury.
Dermal: Can cause moderate skin irritation. Harmful if absorbed through the skin. Does not cause skin sensitization in animal studies.
Inhalation: Inhalation of high concentrations of this product causes signs of respiratory and secretory irritation.
Chronic (cancer information): The active ingredient is not classified as a carcinogen by NTP, IARC or OSHA.

Refer to Section 11 for detailed toxicological information on fenpyroximate and the other ingredients.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients:	Active Ingredient: fenpyroximate	5.0%
	Other Ingredients:	<u>95.0%</u>
	Total:	100.0%

Specific chemical identity of other ingredient(s) and percentage of composition withheld as trade secret.

Chemical Name of

Active Ingredient (CAS): Benzoic acid, 4-((((1,3-dimethyl-5-phenoxy-1H-pyrazol-4-yl)methylene)amino)oxy)methyl)-, 1,1-dimethylethyl ester, (E)-

CAS Registry No.: 134098-61-6

4. FIRST AID MEASURES

Eye Contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion Call a poison control center or doctor immediately for

Inhalation

treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

5. FIRE FIGHTING MEASURES

Flash Point:	None
Fire and Explosion Hazards:	None
Extinguishing Media:	Water spray, foam, dry chemical, and carbon dioxide
Special Fire-Fighting Procedure:	Firefighters and others that may be exposed should wear fully protective clothing and self-contained breathing apparatus. Due to the danger of acute toxicity to aquatic organisms, avoid permitting extinguishing media, such as water, foam, and dry chemicals, flow into ponds, rivers, and lakes.
Hazardous Combustion Products:	Carbon dioxide, carbon monoxide, and nitrogen oxides

6. ACCIDENTAL RELEASE MEASURES

General and Disposal: Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the effects of the spill. Ensure that the disposal is in compliance with federal or local disposal regulations (see Section 13). Notify the appropriate authorities immediately (see Section 15 for any applicable Reportable Quantity (RQ)). Report to authorities if water enters watercourse or sewer.

Land Spill or Leak: Liquid spills on the floor or other impervious surfaces should be contained or diked and then absorbed with sawdust, sand, bentonite,

or other absorbent clay. Collect contaminated absorbent, and place it in a metal drum. Thoroughly scrub the floor or other impervious surface with a strong industrial-type detergent and rinse with water.

Liquid spills that soak into the ground should be dug up and placed in metal drums. When a large spill or leakage is found, wear protective clothing and respirator to avoid exposure.

Avoid contaminated absorbents or water flow into ponds, rivers, and lakes, due to the danger of acute toxicity to aquatic organisms.

7. HANDLING AND STORAGE

Notify the appropriate authorities immediately (see Section 15 for any applicable Reportable Quantity). Also report to authorities if contamination of waterways has occurred.

Handling Precautions:

- Open container with care.
- Use adequate ventilation.
- Avoid handling near an open flame or heat source or ignition source.
- Do not contaminate water by cleaning of equipment or disposal of waste.
- Avoid contact with skin, eyes, or clothing.
- Do not eat, drink, smoke, or chew gum or tobacco while handling this product and until hands and face are thoroughly washed with soap and water.
- Do not use the toilet before thoroughly washing hands.
- Remove contaminated clothing immediately and wash thoroughly before reuse.

Storage Precautions:

- Keep container closed. Store in original container.
- Keep container at room temperature or store in a cool place.
- Avoid storage in direct sunlight, excessive heat or cold.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

(Local exhaust): Ventilation may be necessary under certain confined conditions. If practical, use ventilation at the sources of air contamination. Control airborne contaminants below the exposure guidelines (see below for any applicable OSHA / ACGIH exposure limits).

Personal Protective Equipment:

Eye/Face Protection: Wear protective eyewear (safety glasses; for chemical workers, goggles or face shield) to prevent eye contact.

Skin Protection: Wear long-sleeved shirt, long pants, shoes plus socks and chemical-resistant gloves (such as Barrier Laminate or Viton®) to prevent skin contact. Wash contaminated skin promptly. Launder contaminated clothing and clean protective equipment. Wash thoroughly after handling.

Respiratory Protection: Ensure good ventilation. Avoid breathing mist. If ventilation is inadequate, use approved respiratory protection equipment (combination or gas/vapor respirator) when handling large quantities or handling large spills.

Exposure Limits:

<u>Ingredient:</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
None	--	--

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Whitish liquid
Physical state	Liquid
Odor	Weak ester-like odor
Odor threshold	--
pH	6.19 (1% suspension)
Melting point/freezing point	Melting point: 100-101°C (TGAI)
Initial boiling point and boiling range	Boiling point cannot be evaluated (TGAI)
Flash point	Could not be determined (closed cup)
Evaporation rate	No data
Flammability (solid, gas)	TGAI is not highly flammable

Upper/Lower flammability or explosive limits	Not explosive
Vapor pressure	$<7.50 \times 10^{-8}$ Tor (technical active ingredient)
Density	1.004 g/mL
Relative density	1.25 g/cm ³ (TGAI)
Solubility(ies) in water	21.4 \pm 1.6 μ g/L (pH 5) (TGAI) 23.1 \pm 2.8 μ g/L (pH 7) (TGAI) 29.8 \pm 4.6 μ g/L (pH 9) (TGAI)
Auto-ignition temperature	495°C
Decomposition temperature	No data
Viscosity	384 mPa s

10. STABILITY AND REACTIVITY

Reactivity	No data
Chemical stability	This product is stable for at least 3 years under normal warehouse conditions.
Possibility of hazardous reactions	No data
Conditions to avoid	No data
Incompatible materials	No data
Hazardous decomposition products	None

11. TOXICOLOGICAL INFORMATION

The following data were developed using Miteus 5SC:

Acute Studies:

Oral LD₅₀ (rat):	Male: 7,193 mg/kg Female: 6,789 mg/kg
Dermal LD₅₀ (rat):	Male: > 4,000 mg/kg Female: > 4,000 mg/kg
Inhalation LC₅₀ (rat):	Male: 1.9 mg/l (4 hrs) Female: 2.4 mg/l (4 hrs)
Eye irritation (rabbit):	"Moderately irritating – eye irritant"
Skin irritation (rabbit):	Little or no irritant effect
Skin sensitization (guinea pig):	Non Sensitizing

The following data were developed using fenpyroximate technical:

Subchronic and Chronic Effects:

Fenpyroximate technical was shown to have no target organ effects in the 90-day animal studies. Effects of decreased body weight and food consumption were observed in rats at 7.4 mg/kg/day and in dogs at 2 mg/kg/day.

In long-term chronic studies no target organ toxicity was observed. Reduction in body weight was seen at 3.4 mg/kg/day in the rat in a 2-year study. Similarly weight loss was observed after a one-year exposure to dogs at 15 mg/kg/day and after an 18-month exposure to mice at 9.5 mg/kg/day.

Cancer Effects:

Fenpyroximate was tested in lifetime studies in rats and mice and was not carcinogenic.

Teratogenicity (Birth Defects):

Fenpyroximate technical demonstrated no developmental toxicity in the rabbit at dose levels up to 5 mg/kg/day or in rats also at 5 mg/kg/day.

Reproductive Effects:

Fenpyroximate demonstrated no adverse effects on reproductive performance in a two-generation rat reproduction study. The highest dose tested (6.6 – 8.6 mg/kg/day) resulted in decreased weight gain in both the parents and offspring.

Neurotoxicity:

At 150 and 300 mg/kg, a decrease in the mean auditory reaction score and the mean body weight was observed in female rats. In the male rats at 24 hours, a decrease in the mean body temperature occurred. Several rats of both sexes were observed with hunched posture at 300 mg/kg. There were reductions in motor activity assessment in the total time spent in movement for the female rats at 150 and 300 mg/kg and for males at 300 mg/kg. All behavioral changes were apparently reversible. The no observed adverse effect level (NOAEL) for neurotoxicity is 300 mg/kg.

Immunotoxicity:

Markedly low weight gain and low water intake in both sexes at 300 ppm. No effect on the immune function. The no observed effect level (NOEL) is 300 ppm.

Mutagenicity (Genetic Effects):

Fenpyroximate was not mutagenic when tested in a battery of five different test systems.

Toxicity of other components:

None

12. ECOLOGICAL INFORMATION

Ecological data were developed using fenpyroximate technical.

Environmental Precautions:

This product is very highly toxic to fish and aquatic invertebrates. Do not apply directly to water. Do not contaminate water when cleaning equipment or disposing of equipment wash water or rinsate.

13. DISPOSAL CONSIDERATION

General Disposal:

Any disposal practice must be in compliance with all federal, state/provincial, and local laws and regulations. State (provincial) and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Chemical additions, processing, storage or otherwise altering this material may make the waste disposal information presented in this MSDS incomplete, inaccurate, or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Refer to appropriate federal (RCRA: 40 CFR.261), state/provincial, or local requirements for proper classification information. For regulatory information on the ingredient components, see Section 15.

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Nonrefillable container: Do not reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose

of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Refillable container: Refill the container with pesticide only. Do not reuse the container for any other purpose. Clean container before refilling.

14. TRANSPORT INFORMATION

DOT: Non-bulk (< 119 gallons) not regulated
IATA: UN 3082, Environmentally hazardous substance, liquid, n.o.s, (fenpyroximate), 9, PG III
IMDG: UN 3082, Environmentally hazardous substance, liquid, n.o.s, (fenpyroximate), 9, PG III, MARINE POLLUTANT, EmS: F-A; S-F

15. REGULATORY INFORMATION

U.S. Federal Regulatory Information:

EPA Registration Number: 71711-4

TSCA Inventory: Registered Pesticide; exempt from TSCA

SARA Title III Notification and Information:

Section 302 (EHS) Ingredients: None

Section 304 (EHS)

or CERCLA Ingredients (RQ): None

Name	CAS #	Final Reportable Quantity
None		

Section 313 Ingredients: None

U.S. State Regulatory Information:

U.S. State Right-to-Know (RTK) Ingredients:

- New Jersey
 - CAS #: 57-55-6 – propylene glycol (1,2-PROPANEDIOL)
- Pennsylvania
 - CAS #: 57-55-6 – propylene glycol (1,2-PROPANEDIOL)

California Proposition 65 List:

- None

16. OTHER INFORMATION

HMIS® Hazard Rating:

Health: 1
Flammability: 0
Physical Hazard.: 1

*indicates both acute and chronic health hazard

NFPA Hazard Rating:

Health: 1
Flammability: 0
Reactivity: 0
Specific Hazard: N/A

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Disclaimer of Expressed and Implied Warranties:

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with FIFRA label instructions.