Nichino America, Inc.
Portal® XLO Miticide/Insecticide

1. IDENTIFICATION

Product Name: Portal® XLO Miticide/Insecticide
General Use: Miticide/Insecticide
Product Description: Emulsifiable Concentrate
EPA Reg. No.: 71711-40

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

US Connection: Nichino America Inc.
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Emergency and health and safety inquiries: (800) 348-5832 (24 hours)
In case of fire or spills: (800) 424-9300 (24 hours)
In case of international shipments: (703) 527-3887 (24 hours)

2. HAZARD(S) IDENTIFICATION

Emergency Overview: Warning! May be fatal if inhaled. Causes substantial but temporary eye injury. Harmful if swallowed. Very highly toxic to aquatic organisms (fish, invertebrates, estuarine, and marine organisms).

Physical Hazards: Combustible liquid

Potential Health Effects: Primary route(s) of entry: inhalation, eye, ingestion, and skin contact

Inhalation:	May be fatal if inhaled.
Eye contact:	Causes substantial but temporary eye injury
Ingestion:	Harmful if swallowed
Dermal:	Moderately irritating to the skin. Does not cause skin sensitization in animal studies.
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:	95.0%
	Total:	100.0%
	*contains petroleum distillates	

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

Chemical Name of Active Ingredient (CAS):

Benzoic acid, 4-[[[(E)-[(1,3-dimethyl-5-phenoxy-1H-pyrazol-4-yl)methylene] amino]oxy]methyl]-, 1,1-dimethylethyl ester

CAS Registry No.: 134098-61-6

4. FIRST AID MEASURES

Inhalation 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.

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.

Ingestion Call a poison control center or doctor immediately for 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.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

Note to Physician: May pose an aspiration pneumonia hazard. Contains petroleum distillates.

5. FIRE FIGHTING MEASURES

Flash Point:	75.5º C (168º F)(closed cup)
Fire and Explosion Hazards:	No known characteristics
Extinguishing Media:	Water spray, foam, dry chemical, or carbon dioxide
Special Fire-Fighting Procedure:	Firefighters should wear positive pressure, self-contained breathing apparatus. Avoid runoff from extinguishing media, such as water, foam, and dry chemicals, into ponds, rivers, and lakes due to the danger
Hazardous Combustion Products:	Carbon dioxide or thermal decomposition may evolve toxic vapors (Carbon monoxide, nitrogen oxides, etc).

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

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 and long pants. To prevent skin contact, wear chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or viton. Wash contaminated skin promptly. Launder contaminated clothing and protective equipment. Wash thoroughly after handling.

Respiratory Protection: Ensure good ventilation. Avoid spraying mist. For handling activities, use either a respirator with an organic-vapor removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE pre-filter.

Exposure Limits:

Ingredient:	**ACGIH TLV**	**OSHA PEL**
Naphthalene	TWA: 10 ppm; STEL: 15 ppm; Skin notation	10 ppm (50 mg/m^3)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light amber clear liquid
Odor:	Slightly pungent odor
Physical state:	Liquid at 23 º C
pH:	4.71 (as a 1% w/w solution)
Vapor pressure	< 7.50 x 10^{-8} torr; < 1.00 x 10^{-5} Pa at 25°C (technical active ingredient)
Density	0.948 g/cm^3 at 20°C
Kinematic Viscosity	6.368 cSt at 20°C and 3.958 cSt at 40°C

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions (25º C) for at least 24 months
Conditions to avoid	None known
Auto ignition	No data available
Hazardous polymerization	No data available

11. TOXICOLOGICAL INFORMATION

The following data were developed using Fenpyroximate XLO:

Acute Studies:

Oral LD_{50} (rat):	985 mg/kg
Dermal LD_{50} (rat):	>5000 mg/kg
Inhalation LC_{50} (rat):	0.49 mg/L (4 hrs)
Eye irritation (rabbit):	Severely irritating
Skin irritation (rabbit):	Moderately irritating
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 or rat at dose levels up to 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:

There is no evidence from acute or subchronic neurotoxicity studies in rats that fenpyroximate specifically targets the nervous system.
In the acute neurotoxicity study, decreased motor activity occurred in the presence of systemic toxicity, as manifest by decreased body weight and food consumption, and in the absence of neuropathology. In the subchronic study, no alterations in neurobehavior or neuropathology alterations were observed. Deficits in body weight and food consumption were evident.

Immunotoxicity:
No effects on the immune functions, as assessed by measurement of antigen-specific, T-cell antibody formation were seen at any dose level.

Mutagenicity (Genetic Effects):
Fenpyroximate was not mutagenic when tested in a battery of five different test systems.

Toxicity of other components:

Solvent naphtha (petroleum), heavy aromatic
Repeated exposure may cause skin dryness or cracking. If swallowed, may be aspirated and cause lung damage. May be irritating to the eyes, nose, throat, and lungs.

Naphthalene
Naphthalene caused cancer in laboratory animal studies but the relevance of these findings to humans is uncertain. Naphthalene is listed as "reasonably anticipated to be a human carcinogen" by NTP and "possibly carcinogenic to humans (Group 2B)" by IARC.

N-methyl-2-pyrrolidone
Human experience has demonstrated severe dermatitis (e.g., blisters, cracking, edema, and redness) upon prolonged or repeated contact. Prolonged contact may induce defatting of skin which may result in redness and/or cracking. Reproductive / developmental effects were observed in rats and rabbits. These effects occurred in the presence of maternal toxicity and the relevance of these findings to humans is unknown**.**

12. ECOLOGICAL INFORMATION

Ecological data were developed using Fenpyroximate technical.

Environmental Precautions:
This product is very highly toxic to fish and aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

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 equal to or less than 5 gallons: DO NOT reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.
Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or reconditioning if appropriate 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.

Non-refillable container greater than 5 gallons:

Do not reuse or refill this container. Clean container promptly after emptying. Triple Rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate 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 greater than 5 gallons: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Return to point of sale or offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

14. TRANSPORT INFORMATION

DOT:	Non-bulk (< 119 gallons) not regulated
	>119 gallons: DOT: UN 3082, Environmentally hazardous substance, liquid, n.o.s. (fenpyroximate), 9, PG III
IATA:	UN 3082, Environmentally hazardous substance, liquid, n.o.s., (fenpyroximate), Class 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: 71711-40

TSCA Inventory: Registered pesticide; exempt from TSCA

SARA Title III Notification and Information: N-methyl-2-pyrrolidone (CAS 872-50-4)

Section 302 (EHS) Ingredients: None

Section 304 (EHS) or CERCLA Ingredients (RQ):

Name	CAS #	Final Reportable Quantity
Naphthalene	91-20-3	100 lbs (45.4 kg)

Section 313 Ingredients: Naphthalene CAS # 91-20-3
N-methyl-2-pyrrolidone CAS # 872-50-4

U.S. State Regulatory Information:

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

- N-methyl-2-pyrrolidone
- Naphthalene

California Proposition 65 List:

- N-methyl-2-pyrrolidone: *This product contains a chemical known in the state of California to cause developmental effects.*
- Naphthalene - *This product contains a chemical known in the state of California to cause cancer.*

16. OTHER INFORMATION

HMIS® Hazard Rating:

Health: 3*
Flammability: 2
Physical Hazard.: 0

*indicates both acute and chronic health hazard

NFPA Hazard Rating:

Health:	4
Flammability:	2
Reactivity:	0
Specific Hazard:	0

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