

Nichino America, Inc.
Portal[®] XLO Miticide/Insecticide
Safety Data Sheet

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.
4550 New Linden Hill Rd., Suite 501
Wilmington, DE 19808
Phone: 302-636-9001
Fax: 302-636-9122

**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

Classified according to OSHA 29 CFR 1910.1200 HCS

Classification:

Flammable Liquid	Category 4
Acute Toxicity (Oral)	Category 4
Aspiration Hazard	Category 1
Skin Irritation	Category 2
Eye Irritation:	Category 2A
Acute Toxicity (Inhalation):	Category 2
Carcinogenicity	Category 2
Reproductive Toxicity	Category 1B
Skin Sensitization	Category 1B

Signal Word: DANGER



Hazard Statements:

Combustible liquid
Fatal if inhaled.
May be fatal if swallowed and enters airways
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
May damage fertility or the unborn child
May cause an allergic skin reaction

Precautionary Statements:

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Keep away from heat, sparks, open flames and/or hot surfaces. No smoking.
Do not breathe mists, vapors, and/or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.
Contaminated work clothing must not be allowed out of the workplace.

Response:

In case of fire: Use appropriate media for extinction.
If ON SKIN: Wash with plenty of water. Specific treatment, see supplemental first aid information. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
If INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatment, see supplemental first aid information.
If exposed or concerned: Get medical advice/attention.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.

Disposal:

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Percentage
Fenpyroximate CAS Name: Benzoic acid, 4-((((1,3-dimethyl-5-phenoxy-1H-pyrazol-4-yl)methylene)amino)oxy)methyl)-, 1,1-dimethylethyl ester, (E)-	134098-61-6	5.0%
Naphthalene	91-20-3	<1%
N-methyl-2-pyrrolidone	872-50-4	10 – 20%
*Other ingredients		74 - 84%

*Specific chemical identity and percentage of composition withheld as a trade secret

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.

Most important symptoms and effects, both acute and delayed: Refer to Section 11 – Toxicology Information.

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

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water spray, foam, dry chemical, or carbon dioxide
Unsuitable extinguishing media:	No information available.
Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products):	Combustion or thermal decomposition may evolve toxic vapors (Carbon monoxide, nitrogen oxides, etc.)
Special protective equipment and precautions for fire-fighters:	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

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 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:

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

TWA = time-weighted average

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light amber clear liquid
Odor	Slightly pungent odor
Odor Threshold	No information available
pH	4.71 (as a 1% w/w solution)
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available.
Flash point	75.5° C (168° F)(closed cup)
Evaporation rate	No information available
Flammability (solid, gas)	Not flammable.
Upper/lower flammability or explosive limits	N/A No shock sensitivity to explosion

	No thermal sensitivity to explosion
Vapor pressure	No data available on Portal XLO TGAI: $<1.00 \times 10^{-5}$ Pa at 25°C
Vapor density	TGAI: $<1.75 \times 10^{-12}$ g/mL
Relative density	0.948 g/cm ³ at 20°C
Solubility(ies)	No data available on Portal XLO TGAI: Water solubility 21.4 ± 1.6 µg/L (pH 5) 23.1 ± 2.8 µg/L (pH 7) 29.8 ± 4.6 µg/L (pH 9)
Partition coefficient (n-octanol/water)	No data available on Portal XLO TGAI: log Po/w = 5.01 (Pure)
Auto-ignition temperature	No data available
Decomposition temperature	No information available
Viscosity	6.368 mm ² /s at 20°C and 3.958 mm ² /s at 40°C

TGAI = Technical Grade Active Ingredient

10. STABILITY AND REACTIVITY

Reactivity	No reactive
Chemical stability	Stable under normal conditions (25° C) for at least 24 months
Conditions to avoid	Combustion and thermal decomposition.
Incompatible materials	None known
Hazardous decomposition products	Combustion or thermal decomposition may evolve toxic vapors (Carbon monoxide, nitrogen oxides, etc.)

11. TOXICOLOGICAL INFORMATION

The following data were developed using Portal XLO:

Acute Studies:

Oral LD₅₀ (rat):	985 mg/kg
Dermal LD₅₀ (rat):	>5000 mg/kg
Inhalation LC₅₀ (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:

Naphthalene

Naphthalene caused lung 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

Clear evidence of adverse effects on sexual function and fertility, and/or development, based on animal experiments

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 CONSIDERATIONS

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 $\frac{1}{4}$ 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 $\frac{1}{4}$ 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 (\leq 119 gallons or 450L): Not regulated Bulk ($>$ 119 gallons or 450L): NA 1993, Combustible liquid, n.o.s. (petroleum distillate mixture), Comb liq, 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), Class 9, PG III, Marine Pollutant; EmS: F-A, S-F

Portal XLO Miticide/Insecticide is not regulated for transport under DOT in non-bulk containers..

15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

WARNING

May be fatal if inhaled.
Causes substantial but temporary eye injury.
Harmful if swallowed.

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

Prepared by: Regulatory Affairs

Date: 2/19/2016

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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.