

MATERIAL SAFETY DATA SHEET



Emergency Phone: 866-303-6950
Cheminova, Inc.
Research Triangle Park, NC 27709

Effective Date: 03-Feb-09

DECLARE INSECTICIDE

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Declare Insecticide

COMPANY IDENTIFICATION:

Cheminova, Inc.
P.O. Box 110566
One Park Drive, Suite 150
Research Triangle Park, NC 27709

2. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Off-white liquid with a gasoline-like odor. May cause eye and/or skin irritation. Toxic to aquatic organisms.

EMERGENCY PHONE NUMBER: 866-303-6950

3. COMPOSITION/INFORMATION ON INGREDIENTS:

COMPONENT	CAS NUMBER	W/W%
Gamma-Cyhalothrin	076703-62-3	14.4
Naphthalene	000091-20-3	1.4
Vinyl alcohol, polymers	009002-89-5	1.3
Balance		82.9

4. FIRST AID:

EYE: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

INGESTION: Immediately call a poison control center or doctor. 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.

INHALATION: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, and then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

NOTE TO PHYSICIAN: If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. Maintain adequate ventilation and oxygenation of the patient. Treatment is entirely supportive and symptomatic, with atropine for control of secretions, and benzodiazepines for control of tremor or seizures. Topical application of Vitamin E oil to skin following decontamination may relieve persistent stinging. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES:

FLASH POINT: >100°C (>212°F) aqueous suspension
METHOD USED: SCC

FLAMMABLE LIMITS

LFL: Not applicable
UFL: Not applicable

EXTINGUISHING MEDIA: Dry chemical or carbon dioxide for small fires, and water spray or foam for large fires.

FIRE AND EXPLOSION HAZARDS: Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Toxic irritating gases may be formed under fire conditions.

FIRE-FIGHTING EQUIPMENT: Use a positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS: Absorb small spills with materials such as sand, sawdust, Zorbball, or dirt. Wash exposed body areas thoroughly after handling. Report large spills to Cheminova, Inc. at 866-303-6950.

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7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapors and spray mist. Handle concentrate in ventilated area. Wash thoroughly with soap and water after handling and before eating, chewing gum, using tobacco, using the toilet or smoking. Keep away from food, feedstuffs, and water supplies. Store in original container with the lid tightly closed. Avoid extremes of cold and hot temperatures. Prolonged storage can cause a slight settling, lightly shake container before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXPOSURE GUIDELINES:

Aromatic solvent (petroleum solvent): None established. Supplier recommends a guideline of 100 ppm for the total product, which is a mixture of aromatic hydrocarbons.

Naphthalene: ACGIH TLV is 10 ppm TWA, 15 ppm STEL, Skin, A4. OSHA PEL is 10 ppm TWA.

Vinyl alcohol, polymers: Cheminova, Inc. Industrial Hygiene is 10 mg/M3.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

EYE/FACE PROTECTION: Use chemical goggles.

SKIN PROTECTION: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

HAND PROTECTION: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Viton, Polyethylene, Neoprene, Chlorinated polyethylene, Nitrile/butadiene rubber (Nitrile or NBR), Ethyl vinyl alcohol laminate (EVAL). Examples of acceptable glove barrier materials include: Butyl rubber, Natural rubber (latex), Polyvinyl chloride (PVC or vinyl). Avoid gloves made of Polyvinyl alcohol (PVA). NOTICE: the selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. The following should be effective types of air-purifying respirators: organic vapor cartridge with a particulate pre-filter.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

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9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Off-white liquid
ODOR: Gasoline-like
AUTO-IGNITION TEMPERATURE: Not determined
BOILING POINT: Not determined
FREEZING POINT: Not determined
SPECIFIC GRAVITY: 1.0216 @ 20°C
VAPOR DENSITY: Not determined
MOLECULAR WEIGHT: Not applicable
VAPOR PRESSURE: Not applicable
SOLUBILITY IN WATER: Not applicable
MELTING POINT: Not applicable
DENSITY: 1.0198 g/mL @ 20°C
pH: 5.71

10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Stable under normal use and storage conditions.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)
Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, hydrogen chloride, hydrogen fluoride, nitrogen oxides, hydrogen cyanide, and various chlorinated and fluorinated organic compounds.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause moderate eye irritation. Corneal injury is unlikely.

SKIN: Brief contact may cause slight skin irritation with local redness. May cause drying or flaking of the skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts. For a similar material, the LD₅₀ for skin absorption in rats is >5000 mg/kg. Similar materials have been shown to cause allergic skin reactions when tested in guinea pigs.

INGESTION: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. May cause central nervous system effects. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia. The oral LD₅₀ for rats for a similar material is between 2250 mg/kg (males) and 2646 mg/kg (females).

INHALATION: Prolonged excessive exposure may cause adverse effects. May cause central nervous system effects. The aerosol LC₅₀ for rats for a similar material is >2.72 mg/L (males) and 2.54 mg/L (females).

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: For the active ingredient, excessive exposure may cause neurologic signs and symptoms. For the solvent, in animals, effects have been reported on the following organs: respiratory tract, gastrointestinal tract, thyroid, and urinary tract. Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust.

CANCER INFORMATION: Contains naphthalene, which has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.

TERATOLOGY (BIRTH DEFECTS): The active ingredient did not cause birth defects or other effects in the fetus even at doses which caused toxic effects to the mother. The solvent did not cause birth defects or any other fetal effects in laboratory animals.

REPRODUCTIVE EFFECTS: For the active ingredient, in animal studies, a similar material has been shown not to interfere with reproduction.

MUTAGENICITY: For a similar material, in-vitro genetic toxicity studies were negative.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

MOVEMENT & PARTITIONING:
Bioconcentration potential is high (BCF is >3000 or Log P_{ow} between 5 and 7).

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DEGRADATION & PERSISTENCE:

Biodegradation may occur under aerobic conditions (in the presence of oxygen).

ECOTOXICOLOGY:

Based largely or completely on information for a similar material.

Material is very highly toxic to aquatic organisms on an acute basis (LC₅₀ or EC₅₀ is <0.1 mg/L in the most sensitive species tested).

Material is practically non-toxic to birds on an acute basis (LD₅₀ is >2000 mg/kg).

Acute oral LD₅₀ in honeybee (*Apis mellifera*) is 1.259 µg/bee.

Acute contact LD₅₀ for honeybee (*Apis mellifera*) is 0.030 µg/bee.

The LC₅₀ for earthworm (*Eisenia foetida*) is >1000 mg/kg.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

For shipments of less than 7142 pounds by all modes of transportation:

This substance is not regulated for transport.

For shipments of 7142 pounds or greater by all modes of transportation:

ENVIRONMENTALLY HAZARDOUS SUBSTANCES,
LIQUID, N.O.S./(NAPHTHALENE)/9/UN3082/PG III/RQ
(NAPHTHALENE)

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME CAS NUMBER CONCENTRATION

Naphthalene	000091-20-3	1.4%
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SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains a chemical(s) known to the State of California to cause cancer. **WARNING:** This product contains a chemical (naphthalene) which is known to the State of California to cause cancer. The chemical is Naphthalene (CAS 000091-20-3)

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

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STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CHEMICAL NAME	CAS NUMBER	LIST
Naphthalene	000091-20-3	NJ2 NJ3 PA1 PA3

NJ2=New Jersey Environmental Hazardous Substance (present at greater than or equal to 1.0%).
NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%).
PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%).
PA3=Pennsylvania Environmental Hazardous Substance (present at greater than or equal to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	2
Flammability	2
Reactivity	0

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA, which may require reporting of releases:

Chemical Name	CAS#	RQ	% in Product
Naphthalene	000091-20-3	100 lbs.	1.4%

RCRA CATEGORIZATION:
U.S. EPA Hazardous Waste # U165 (Naphthalene)

16. OTHER INFORMATION:

MSDS STATUS: New

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Cheminova, Inc. for Further Information.