

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Product Name:** **Abamex Miticide/Insecticide****EPA Reg. No.:** 228-734**Product Type:** Miticide/Insecticide**Company Name:** Nufarm Americas, Inc.
11901 S. Austin Avenue
Alsip, IL 60803
1-800-345-3330**Telephone Numbers:** **For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840**

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not exactly the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION**For EPA FIFRA-Specific Information see Section 15****HEALTH HAZARDS:**

Acute Toxicity, Oral	Category 4
Acute Toxicity, Inhalation	Category 3

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute	Category 1
Hazardous to aquatic environment, chronic	Category 1

SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Harmful if swallowed. Toxic if inhaled. Toxic to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing mist, vapors, or spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor. Collect spillage.

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

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SAFETY DATA SHEET

Abamex Miticide/Insecticide

COMPONENTS	CAS NO.	% BY WEIGHT
Abamectin	65195-56-4/65195-55-3	1.9 – 2.1
Butylated hydroxytoluene (BHT)	128-37-0	1.9 – 2.1
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Abamectin

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for several minutes. Remove contact lenses, if present, then continue rinsing eye. Call a poison control center or doctor for treatment advice if irritation occurs and persists.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If Swallowed: Call a poison control center or doctor for treatment advice. 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.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin with plenty of water for several minutes. Call a poison control center or doctor for treatment advice if irritation occurs and persists.

Most Important symptoms/effects, acute and delayed: May be toxic if inhaled. Harmful if swallowed.

Indication of Immediate medical attention and special treatment if needed, if necessary: Immediate medical attention should not be required.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.

Special Fire Fighting Procedures: Firefighters should wear NIOSH approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Avoid creation of dusty conditions. Scrape up and place in appropriate closed container. Wash entire spill area with a detergent slurry, absorb and sweep into container for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

HANDLING: Do not get in eyes or on clothing or skin. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal

Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store in a tightly closed container in a cool, dry place. Do not contaminate water, food, or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Eye/Face Protection: Not normally required. To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, chemical resistant gloves, socks and shoes. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Abamectin	NE	NE	NE	NE	
Butylated hydroxytoluene	NE	NE	10	NE	mg/m ³
Other Ingredients	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber liquid
Odor:	Moderate petroleum
Odor threshold:	No data available
pH:	7.28 (@ 25°C)
Melting point/freezing point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	> 230°F (110°C)
Evaporation rate:	No data available
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1.030 g/cm ³ (@ 25°C) and 1.020 g/cm ³ (@ 38°C)
Solubility(ies):	Soluble
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	19.3 cPs (25°C) and 12.1 cPs (38°C)
VOC Emission Potential (%)	14.783

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive.

Chemical Stability: This material is stable under normal handling and storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: None known.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: May produce gases such as oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal, inhalation

Symptoms of Exposure:

Eye Contact: Mildly irritating based on toxicity studies.

Skin Contact: Minimally toxic and slightly irritating based on toxicity studies.

Ingestion: Slightly toxic if ingested based on toxicity studies.

Inhalation: Toxic based on toxicity studies.

Delayed, immediate and chronic effects of exposure:

Toxicological Data:

Data from laboratory studies conducted are summarized below:

Oral: Rat LD₅₀: 550 mg/kg (female)

Dermal: Rat LD₅₀: >2,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: >2.07 mg/L

Eye Irritation: Rabbit: Mildly irritating (MMTS = 21.7)

Skin Irritation: Rabbit: Slightly irritating (PDII = 0.3)

Skin Sensitization: Not a contact sensitizer in mice following repeated skin exposure.

Subchronic (Target Organ) Effects: None known.

Carcinogenicity / Chronic Health Effects: None of the ingredients of this product are listed as carcinogens by IARC, NTP, OSHA, or the EPA.

Reproductive Toxicity: No reproductive effects known.

Developmental Toxicity: No developmental effects known.

Genotoxicity: No genetic effects known.

Assessment Carcinogenicity: This product contains substances considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Abamectin	No	No	No	No
Butylated hydroxytoluene	No	3	No	No
Other ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Abamectin Technical:

96-hour LC ₅₀ Bluegill:	9.6 ppb	Bobwhite Quail Oral LD ₅₀ :	>2000 mg/kg
96-hour LC ₅₀ Rainbow Trout:	3.6 ppb	Bobwhite Quail 8-day Dietary LC ₅₀ :	3,102 ppm
48-hour EC ₅₀ Daphnia:	0.34 ppb	Mallard Duck 5-day Dietary LC ₅₀ :	383 ppm
48-hour Honey Bee Contact LD ₅₀ :	0.022 µg/bee		

Environmental Fate:

Abamectin is nearly insoluble in water and has a strong tendency to bind to soil particles. Abamectin is rapidly degraded by photolysis in both the soil and water. The average half-life in soil is 5 – 10 hours and in water 18 hours. Hydrolysis is not an important degradation mechanism.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide is a violation of Federal law.

Container Handling and Disposal: Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT**< 119 gallons per complete package**

Compound insecticide, liquid, not DOT regulated

≥ 119 gallons per complete package

UN3082, Environmentally hazardous substances, liquid, n.o.s., (Abamectin), 9, III, Marine pollutant

IMDG

UN3082, Environmentally hazardous substances, liquid, n.o.s., (Abamectin), 9, III, Marine pollutant

IATA

UN3082, Environmentally hazardous substances, liquid, n.o.s., (Abamectin), 9, III, Marine pollutant

15. REGULATORY INFORMATION**EPA FIFRA 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.

CAUTION. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Acute Health

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:


None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65:  **ATTENTION.** This product can expose you to chemicals including abamectin which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION**National Fire Protection Association (NFPA) Hazard Rating:**

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

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