

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Abamectin E-AG 0.15 EC Insecticide
DESCRIPTION: An emulsifiable concentrate insecticide.

COMPANY IDENTIFICATION:

Etigra
 501 Cascade Pointe Lane
 Suite 103
 Cary, NC 27513
www.etigra.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Chemical Name	CAS #	Composition
Abamectin	A mixture of avermectins containing primarily Avermectin B1a and B1b	65195-56-4 and 65195-55-3	2.0%
Butylated Hydroxytoluene (BHT)	2,6-di- <i>tert</i> -butyl- <i>p</i> -cresol	128-37-0	1.2%
<i>n</i> -Methylpyrrolidone	<i>N</i> -methyl- α -pyrrolidinone	872-50-4	\leq 30.0%

3. HAZARD IDENTIFICATION

HAZARDS TO HUMANS AND DOMESTIC ANIMALS: Causes substantial but temporary eye injury. Harmful if swallowed. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. This product contains a chemical (*N*-methyl pyrrolidone) known to the state of California to cause birth defects or other reproductive harm.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and wildlife. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects.

4. FIRST AID

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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

IF SWALLOWED: 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

NOTE TO PHYSICIAN: Early signs of intoxication include mydriasis (dilated pupils), ataxia (unsteadiness), and muscle tremors. Toxicity following accidental ingestion of Abamectin E-AG 0.15 EC Insecticide can be minimized by inducing vomiting within one-half hour of exposure. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels) as indicated by clinical signs, symptoms, and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

Manufactured for:
 Etigra
 501 Cascade Pointe Lane
 Suite 103
 Cary, NC 27513
www.etigra.com

REV 0707

Etigra
Emergency Phone: Chemtrec 800-424-9300
 Effective Date: March 8, 2007
 EPA Reg. No. 79676-58



ETIGRA™

5. FIRE-FIGHTING MEASURES

Flashpoint: 80°C (176°F)

Flammable Limits (LFL-UFL): Not Applicable

Fire and Explosion Hazards: Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. Heavy vapors can flow along surfaces to distant ignition sources and flash back.

Means of Extinction: Use appropriate extinguishing media for combustibles in the area.

Fire Fighting Instructions: Evacuate area and fight fire upwind a safe distance to avoid hazardous vapors and decomposition products. Cool closed containers exposed to fire with water spray. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Foam or dry chemical extinguishing systems are preferred to prevent environmental damage due to runoff. Equipment or materials involved in pesticide fires may become contaminated, prevent use of contaminated buildings, area and equipment until decontaminated.

Firefighting Equipment: Self-contained breathing apparatus with full face piece and full protective clothing (bunker gear).

Hazardous Combustion Products: Irritating and possibly toxic gasses.

NFPA RATINGS: Health – 2 / Flammability – 2 / Instability – 0

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this MSDS. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Contain the spill to prevent contaminating soil or from entering sewage and drainage systems and bodies of water.

Cover spill with absorbing material and using recommended protective equipment, carefully collect material and place it in a covered container for disposal. Scrub the contaminated area with hard-water detergent followed by a water rinse. Use dry absorbent material to absorb and collect wash solution for proper disposal.

7. HANDLING AND STORAGE

Avoid contact with skin, eyes and clothing. Wear protective eyewear (goggles or face shield). Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: To avoid exceeding exposure limits, handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Tight fitting safety goggles. Chemical-resistant gloves made of waterproof material such as barrier laminate or butyl rubber \geq 14 mils. Coveralls over short-sleeved shirt and short pants and chemical-resistant footwear plus socks. Use chemical-resistant headgear for overhead exposure and a chemical-resistant apron when

cleaning equipment, mixing or loading. In areas with inadequate ventilation, a combination particulate / organic vapor respirator may be necessary; use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

General: Wash thoroughly with soap and water after handling. Discard clothing and other absorbent materials that have been heavily contaminated with this product; do not reuse them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid

Odor: Not determined

pH: 4.41

Flashpoint (PMA-4): 176°F (80°C)

Density: 1.052 g/ml

Viscosity: 15.797 (20°C)

Solubility in Water: Dispersible

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat and open flame.

CHEMICAL STABILITY: Stable under normal use and storage conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Can decompose at high temperatures forming toxic gasses.

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

Oral LD₅₀ (rat): 310 mg/kg

ACUTE DERMAL TOXICITY

Dermal LD₅₀ (rat): > 5,000 mg/kg

ACUTE INHALATION TOXICITY

Inhalation LC₅₀ (rat): > 2.09 mg/L

EYE IRRITANT

Rabbit – Causes moderate eye irritation.

SKIN IRRITATION

Rabbit – Slightly irritating

SENSITIZATION

Guinea Pig – Not a Contact Sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGENICITY:

ACGIH: Not listed

IARC: Not listed

NTP: Not listed

OSHA: Not listed

MUTAGENIC DATE: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

ADDITIONAL DATA: Not known to cause reproductive or birth defects at normal exposure levels.

12. ECOLOGICAL INFORMATION

This pesticide is highly toxic to fish, invertebrates, birds and bees. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment washwater or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: UN 2902, Pesticides, liquid, toxic, n.o.s. (Abamectin), 6.1, PG III

DOT HAZARD CLASS OR DIVISION: 6.1

DOT UN/NA NUMBER: UN 2902

DOT PACKING GROUP: III

DOT EMERGENCY RESPONSE GUIDE: 151

MARINE POLLUTANT: Yes

15. REGULATORY INFORMATION

FIFRA –

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

SARA Title III – Section 302 Extremely Hazardous Substances

Not Listed

SARA Title III – Section 311/312 Hazard Categories

Immediate, Delayed, Fire

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients

n-Methylpyrrolidone - CAS #872-50-4

CERCLA –

Not Listed

CALIFORNIA PROP 65 STATUS –

This product contains a chemical (n-Methylpyrrolidone) known to the state of California to cause birth defects or other reproductive harm.

16. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

DISCLAIMER:

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