

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

In Case of Emergency, Call
1-800-888-8372

1. PRODUCT IDENTIFICATION

Product Name: **AGRI-MEK 0.15 EC MITICIDE/INSECTICIDE** Product No.: A8612A

EPA Signal Word: Warning

Active Ingredient(%): Abamectin (2.0%) CAS No.: Mixture

Chemical Name: A mixture of avermectins containing primarily Avermectin B1a and Avermectin B1b

Chemical Class: Glycoside Insecticide

EPA Registration Number(s): 100-898 **Section(s) Revised: All sections**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Solvent	Not Established	Not Established	5 mg/m ³ (Respirable)*	No
Butylated Hydroxytoluene (BHT)	10 mg/m ³ TWA	2 mg/m ³ TWA	10 mg/m ³ Recommended Exposure Limit (REL) 10-hr workday/40-hr week **	IARC Group 3
n-Methylpyrrolidone	Not Established	Not Established	10 ppm TWA****	No
Abamectin (2.0%)	Not Established	Not Established	0.02 mg/m ³ TWA***	No

- * recommended by manufacturer
- ** recommended by NIOSH
- *** Syngenta Occupational Exposure Limit (OEL)
- **** Recommended by AIHA (American Industrial Hygiene Association)

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

3. HAZARDS IDENTIFICATION
Symptoms of Acute Exposure

Exposure results in moderate irritation to the eyes. A skin sensitization (allergic) reaction may occur in some individuals.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Straw to rust colored liquid
 Odor: Not determined

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

There is no specific antidote if this product is ingested.

Recommendations for Medical Treatment for Abamectin Acute Toxicity: Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Toxicity following accidental ingestion of the technical product can be minimized by vomiting within one-half hour of exposure; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) 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.

Medical Condition Likely to be Aggravated by Exposure

Individuals with allergy history or pre-existing dermatitis should use extra precautions in handling this product.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	161°F	
Flammable Limits (% in Air):	Lower: % Not Applicable	Upper: % Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Applicable	

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. If a solid, sweep up material and place in a compatible disposal container. If a liquid, cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. A NIOSH-certified combination air-purifying respirator with an N, P or R 95 or HE class filter and an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Straw to rust colored liquid
- Odor: Not determined
- Melting Point: Not Applicable
- Boiling Point: Not Available
- Specific Gravity/Density: 7.90 lbs/gal (typical)
- pH: 2.6-3.6

Solubility in H₂O

Abamectin: 0.007 - 0.01 mg/L @ 68°F (20°C)

Vapor Pressure

Abamectin: $<2.8 \times 10^{-8}$ mmHg @ 77°F (25°C)

10. STABILITY AND REACTIVITY

- Stability: Stable under normal use and storage conditions.
- Hazardous Polymerization: Will not occur.
- Conditions to Avoid: None known.
- Materials to Avoid: None known.
- Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

- Ingestion: Moderately Toxic
Oral (LD50 Rat) : 300 mg/kg body weight
- Dermal: Slightly Toxic
Dermal (LD50 Rabbit) : > 1,800 mg/kg body weight
- Inhalation: Slightly Toxic
Inhalation (LC50 Rat) : 3.5 mg/l air - 4 hours
- Eye Contact: Moderately Irritating (Rabbit)

Skin Contact: Not Available
Skin Sensitization: Sensitizing (Guinea Pig)

Neurotoxicity

Abamectin: Central nervous system effects in animals.

Reproductive Effects

Abamectin: Reproductive toxin in animal studies at doses acutely toxic to the maternal animal.

Chronic/Subchronic Toxicity Studies

Abamectin: Central nervous system effects in animals.

Carcinogenicity

Abamectin: None observed.

Other Toxicity Information

Not Available

Toxicity of Other Components

Butylated Hydroxytoluene (BHT)

Listed as an IARC (Group 3) carcinogen not classifiable as human (no data available) with limited animal evidence. Exposure may result in irritation to eyes, skin and respiratory tract. Ingestion may cause diarrhea, respiratory depression, tremors, and chronic pulmonary edema or congestion and hemorrhage.

Solvent

Exposure may cause eye, skin or respiratory tract irritation. Pulmonary aspiration can cause lung damage.

n-Methylpyrrolidone

May cause respiratory tract irritation. Causes eye and skin burns. Repeated or prolonged exposure may cause drying and cracking of the skin. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns.

Target Organs

Active Ingredients

Abamectin: Skin, eye, CNS

Inert Ingredients

Butylated Hydroxytoluene (BHT): Eye, skin, respiratory tract

Solvent: Eye, skin, respiratory tract

n-Methylpyrrolidone: Eye, skin

12. ECOLOGICAL INFORMATION

Summary of Effects

Abamectin:

Highly toxic to aquatic organisms. Not bioconcentrateable in fish.

Eco-Acute Toxicity

Abamectin: Rainbow Trout 96-hour LC50 3.6 ppb
Bluegill Sunfish 96-hour LC50 9.6 ppb
Daphnia magna 48-hour LC50 0.34 ppb
Bobwhite 8-day Dietary LC50 3,102 ppm
Mysid Shrimp 48 HR LC50 0.022 ppb
Mallard 5-day Dietary LC50 383 ppm

Eco-Chronic Toxicity

Abamectin: Not Available

Environmental Fate

Abamectin:

No data available for the formulation. The information presented here is for the active ingredient, abamectin. A thorough review of environmental information is not possible in this document. For additional information call the

toll free number listed in Section 16.

Environmental Persistence/Mobility: Stable in sterile water, in the dark, but degrades rapidly in the light in unbuffered water ($t_{1/2} \sim < 4$ d). In aerobic soil, degrades more rapidly in the light ($t_{1/2} \sim < 1$ d), than in the dark ($t_{1/2} \sim 20$ to 47 d). Low mobility to immobile in various soils ($K_{oc} = 1494$ to 12,051).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Pesticides, Liquid, Toxic, N.O.S., (Abamectin Solution), 6.1, UN2902, PGIII

B/L Freight Classification

Insecticides or Fungicides; Agricultural, N.O.S.

Comments

Pesticides, Liquid, Toxic, N.O.S., (Abamectin Solution), Class 6.1, UN2902, PGIII

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Section 313 Toxic Chemicals: n-Methylpyrrolidone (CAS No. 872-50-4)

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 2
Instability: 0

HMIS Hazard Ratings

Health: 2
Flammability: 2
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 04/15/1991

Revision Date: 06/06/2002

Replaces: 07/25/2000

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

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End of MSDS