



P.O. Box 34645 • Omaha, NE 68134 • Toll-Free: 800-698-4641 • Phone: 402-339-4459 • Fax: 402-339-5011 • www.ArborSystems.com

1. PRODUCT IDENTIFICATION

Product Name: Greyhound™ Insecticide	EPA Reg. No.: 69117-2	Chemical Description: A mixture of avermectins containing primarily Avermectin B1a and Avermectin B1b
Active Ingredient (%): Abamectin (2.0%)	EPA Est: 69117-NE-1	Chemical Class: Glycoside Insecticide
CAS Nos.: 65195-56-4 and 65195-55-3	EPA Signal Word: Warning	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Mineral Oil	5 mg/m ³ (mist)	5 mg/m ³ (mist); 10 mg/m ³ (STEL)	5 mg/m ³ (mist); 10 mg/m ³ (STEL) **	No
Butylated Hydroxytoluene (BHT)	Not established	2 mg/m ³ TWA (inhalable)	10 mg/m ³ TWA **	IARC Group 3
n-Methylpyrrolidone (<=30%)	Not established	Not established	10 ppm TWA ****	No
Abamectin (2.0%)	Not established	Not established	0.02 mg/m ³ TWA ***	No

** Recommended by NIOSH

*** 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.

Hazard Category: C, S

3. HAZARDS IDENTIFICATION

Health and Environmental: May be fatal if swallowed. Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through the skin. May cause respiratory tract irritation. May cause sensitization by skin contact. Vapors may cause drowsiness and dizziness.

Hazardous Decomposition Products: May decompose at high temperatures forming toxic gases.

Physical Properties:

Appearance: Yellow to red brown liquid

Odor: Not determined

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

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 a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Immediately call a poison control center or doctor 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.

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 a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 minutes. Call 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 by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Notes to Physician: Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. Toxicity following accidental ingestion of abamectin can be minimized by early administration of chemical adsorbents (e.g. activated charcoal). 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 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: None known.

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: Combustible liquid



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

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

In Case of Fire: Use appropriate extinguishing media for combustibles in the area. 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 from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. 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 gloves (such as barrier laminate, butyl rubber, nitrile rubber or Viton), coveralls, socks, and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation: A combination particulate/ organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

Use a self-contained breathing apparatus in cases of emergency spills,

when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow or red brown liquid

Odor: Not determined

Melting Point: Not applicable

Boiling Point: Not available

Specific Gravity/Density: 0.96 g/cm³ (68–77°F [20–25°C])

pH: 2.6–3.6 (1% in deionized H₂O)

Solubility in H₂O: Abamectin: 0.007–0.01 mg/l @ 68°F (20°C)

Vapor Pressure: Abamectin: 7.5 x 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: May decompose at high temperatures forming toxic gases

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Oral (LD50 Rat): ~ 300 mg/kg body weight

Dermal: Dermal (LD50 Rabbit): > 1800 mg/kg body weight

Inhalation: Inhalation (LC50 Rat): 3.5 mg/l air – 4 hours

Eye Contact: Substantial but temporary eye injury (Rabbit)

Skin Contact: Moderately irritating (Rabbit)

Skin Sensitization: Sensitizing (Guinea Pig)

Reproductive/Developmental Effects

Abamectin: Reproductive toxin in animal studies only 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: None

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.

Mineral Oil: May cause respiratory irritation when inhaled as a mist.

n-Methylpyrrolidone (<=30%): May cause respiratory tract irritation. Repeated or prolonged exposure may cause drying and cracking of the skin.



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Target Organs:

Active Ingredients: Abamectin: Skin, eye, CNS

Inert Ingredients:

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

Mineral Oil: Respiratory tract

n-Methylpyrrolidone: Eye, skin

12. ECOLOGICAL INFORMATION

Summary of Effects:

Abamectin: Toxic to fish and wildlife with long-lasting effects

Eco-Acute Toxicity:

Abamectin:

Fish (Rainbow Trout) 96-hour LC50 3.6 ppb

Fish (Bluegill Sunfish) 96-hour LC50 9.6 ppb

Bird (Bobwhite Quail) LD50 Oral > 2000 mg/kg

Bird (Bobwhite Quail) 8-day dietary LC50 3102 ppm

Bird (Mallard Duck) 8-day dietary LC50 383 ppm

Bee (Contact) LD50 0.41 ug/bee

Invertebrate (Water Flea) 48-hour EC50 0.34 ppb

Green Algae 9-day EC50 > 100 ppm

Eco-Chronic Toxicity:

Abamectin:

Invertebrate (Water Flea) 21-day LOEC 0.09 ppb

Bird (Mallard Duck) Reproduction LOEL 64 ppm

Environmental Fate:

Abamectin:

The information presented here is for the active ingredient, abamectin.

Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility in soil. Mixes in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in original container in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non-refillable container; do not refill or reuse this container. Completely empty pack into application equipment, then offer for recycling, if available; or dispose of empty pack in a sanitary landfill; or by incineration if allowed by State and local authorities.

14. TRANSPORT INFORMATION

This product is shipped in inner packaging not over 4 L (1.0 Gallon) each and is therefore shipped under the "Limited quantities of Division 6.1 materials" exception, 49 CFR 173.153(b).

Revision: 04/2012

Supersedes: 12/97, 04/04, 05/06, 03/08, 05/08, 11/08, 08/09 and 12/09 versions

Greyhound™ is a trademark of ArborSystems.

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 (<=30%) (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	HMIS Hazard Ratings	Rating Key
Health: 2	Health: 2	0 = Minimal
Flammability: 2	Flammability: 2	1 = Slight
Instability: 0	Reactivity: 0	2 = Moderate
		3 = Serious
		4 = Extreme

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

All tests were conducted following OECD guidelines for Good Laboratory Practices (GLP).

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS 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 this product in a manner inconsistent with its labeling.

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