Material Safety Data Sheet

Product Name: AZATROL EC Insecticide

MSDS No.: 661-6
Version No.: 002
EPA Registration No.: 2217-836

1. Basic Information:

Manufacturer: PBI/Gordon Corporation
Address: 1217 West 12th Street
City, State Zip: Kansas City, MO 64101-1407
Information Contact: Environmental, Health, & Safety Dept.
Information Telephone Number: (816)421-4070
Emergency Contact: Chemtrec
Emergency Telephone Number: (800)424-9300
Last Update: 11/12/2002
Chemical State: Liquid
Chemical Type: Mixture

2. Ingredients:

<table>
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<tr>
<th>CAS No.</th>
<th>Chemical Name</th>
<th>% Range</th>
<th>EHS</th>
<th>IARC</th>
<th>SARA 313</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
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<tbody>
<tr>
<td>11141176</td>
<td>Azadirachtin</td>
<td>1.2%</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>NI</td>
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</tbody>
</table>

3. Hazardous Identification:

Hazard Category:
- Acute
- Chronic
- Fire
- Pressure
- Reactive

Hazardous Identification Information:

4. First Aid Measures:

Route(s) of Entry:
Inhalation, dermal, ingestion.

Health Hazards (Acute and Chronic):
Chronic exposure may cause various implications.

Signs and Symptoms:
Inhalation--May be irritating to mucous membrane and excessive exposure may result in drowsiness.

Ingestion--may cause drowsiness.

Skin Contact--May cause mild irritation.

Eye Contact--May cause mild irritation.

Medical Conditions Generally Aggravated by Exposure:
NI

Emergency First Aid Procedure:
IF INHALED: Move person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF INGESTED: Induce vomiting by gastric lavage. Call physician immediately.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

Other Health Warnings:
NI

5. Fire Fighting Measures:

Flash Point: >340°F
F.P. Method:

Lower Explosive Limit: NI
Upper Explosive Limit: NI

Fire Extinguishing Media:
CO2, Dry Chemical, Foam

Special Fire Fighting Procedures:
Wear positive-pressure breathing apparatus and full protective clothing. Fight fire from maximum distance. Stay up-wind and out of low areas.

Unusual Fire and Explosion:
NI

6. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:
Do not touch spilled material. See Section 8 for Personal Protective Equipment. Contain and absorb spilled material on Dri-Rite, sand or other inert absorbent. Collect into drums; cover and label for disposal. Flush area with water if possible.

7. Handling and Storage:

Precautions to be Taken:
Do not contaminate water, food, or feed by storage or disposal. Do not reuse container.

Other Precautions:
High temperature, open sunlight or highly illuminated places degrade the material. Do not store this product above 105°F or below 32°F for extended periods of time. Keep tightly closed in original container.

8. Exposure Controls/Personal Protection:

Ventilation Requirements:
Thorough ventilation is recommended in case of accidental spillage.

Personal Protective Equipment:
Harmful if absorbed through skin or inhaled. Avoid breathing vapor.
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**Exposure Controls/Personal Protection (Continued)**
Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing before reuse.

Eye/Face --Wear chemical safety goggles or face shield.
Skin protection -- Wear protective gloves.
Respiratory protection--Thorough ventilation is recommended in case of accidental spillage.

Additional protection information: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Applicators/Handlers: Must wear long sleeved shirt and pants, waterproof gloves, and shoes plus socks.

**9. Physical and Chemical Properties:**

- **Boiling Point:** NI
- **Melting Point:** >160°C
- **Evaporation Rate (Butyl Acetate = 1):** NI
- **Vapor Pressure (mm Hg):** NI
- **Vapor Density (Air = 1):** NI
- **Specific Gravity (H2O = 1):** 0.98000
- **Solubility in Water:** Emulsifies with water.
- **Appearance and Odor:** Brown viscous liquid.
- **Other Information:** NI

**10. Stability and Reactivity:**

- **Stability:** Stable at ordinary conditions of use and storage.
- **Incompatibility (Materials to Avoid):** Acids, alkali or oxidizing agents.
- **Decomposition/By-Products:** No hazardous materials are produced
- **Hazardous Polymerization:** Does not occur

**11. Toxicological Information:**

- **Acute Toxicity/Irritation Studies:**
  - Acute Oral: Rat LD50 > 5,000 mg/kg
  - Acute Dermal: Rat LD50 > 2,000 mg/kg
  - Acute Inhalation: Rat LC50 > 5.4 mg/L
- **Primary Eye Irritation:** Rabbit -- No irritation
- **Primary Skin Irritation:** Rabbit -- Mild irritation
- **Skin Sensitization:** Guinea Pig -- No sensitization

- **Mutagenicity:** Non mutagenic
- **Carcinogenicity:** Non carcinogenic
- **Neurotoxicity:** No neurotoxicity (NOAEC 1,000 mg/kg)
- **Developmental Toxicity:** Rats-NOAEC-50 mg/kg/day
- **Dietary Toxicity:** Rats-NOAEC-100 ppm

**12. Ecological Information:**

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

**Ecological Information (Continued)**

Homeowner Use: Do not apply directly to water. Do not contaminate water when disposing of equipment washwater or rinseate.

- **Effect on Honeybees:** Harmless
- **Effect on Earthworms:** Harmless (>1,000 mg/kg)
- **Effect on Predators:** Harmless
- **Hazard to Soil Microflora:** Non Hazardous
- **Acute Daphnia Immobilization:** EC50 >50 mg/L
- **Acute Fish Toxicity (Rainbow Trout):** LC50= 440 mg/L (24 hours)
- **Algal Inhibition Test:** Non-inhibitory, non stimulant
- **Metabolism in Soil:** Rapid decomposition in soil
- **Degradability in Water:** Readily biodegradable in water.

**13. Disposal Considerations:**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse container.

**STORAGE:** Do not store this product above 105°F or below -15°F for extended periods of time. Keep containers tightly closed and in original containers when not in use.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Homeowner: Securely wrap original container in several layers of newspaper and discard in trash.

**CONTAINER DISPOSAL:**
- FOR PLASTIC CONTAINERS - 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.
- FOR DRUMS - Triple rinse (or equivalent). 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.

**14. Transport Information:**

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Dept.

**Freight Class:** Insecticides, NOI - NMFC #102120

In our current available sizes, this product does not qualify as a Hazardous Material.

**15. Regulatory Information:**

- **OSHA STATUS:** This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.
- **TSCA STATUS:** This product is exempt from TSCA Regulation under FIFRA Section 3(2)(B)(ii) when used as a pesticide.
- **CERCLA REPORTABLE QUANTITY:** None
- **SARA TITLE III:**
  - SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None
  - SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard
  - SECTION 313 TOXIC CHEMICALS: None
- **RCRA STATUS:** If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, 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. (40 CFR 261.20-24)
16. Other Information:

REASON FOR ISSUE: To revise Sections 4, 5, 10, and 11.

NOTE: NI means not indicated.

The information and statements in this Material Safety Data Sheet are believed to accurately reflect the scientific evidence used in making the hazard determination, but is not to be construed as a warranty or representation for which we assume legal responsibility. Additional information may be necessary or desirable depending on particular, exceptional or variable conditions or circumstances of use or storage or because of locally applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information available to you and must make independent determinations of the suitability of the information for your particular circumstances or conditions and of the completeness of the information available from all sources to assure both the proper use of the material described herein and the safety and health of employees.