

# MACH 2\* 1.5G

EPA Reg. No. 62719-473

## Registration Notes:

Source label text based on RohMid<sup>†</sup> EPA accepted copy dated October 4, 2000 and Dow AgroSciences' notification coded "E3B / MACH 2 1.5G / Notif / 01-10-02."

### Proposed Changes by Amendment:

1. Corrected spelling of "Not" in Not for Sale or Use in Nassau and Suffolk Counties, New York.
2. Based upon the following acute tox studies, revised First Aid section per PR Notice 2001-1 and Precautionary Statements section:

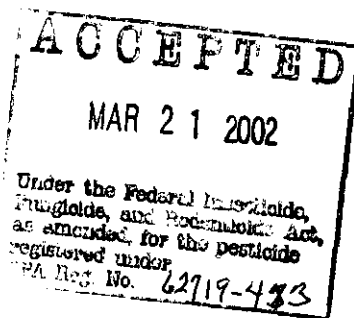
### Acute Toxicity Category by Route of Exposure:

| Route of Exposure       | MACH 2 1.5G    |
|-------------------------|----------------|
| Oral LD <sub>50</sub>   | Cat IV         |
| Dermal LD <sub>50</sub> | Cat III        |
| Inhalation              | Cat IV         |
| Ocular Irritation       | Cat III        |
| Dermal Irritation       | Cat IV         |
| Dermal Sensitization    | Non-sensitizer |

3. Environmental Hazards: Revised first paragraph in accordance with Chapter 9 of the Label Review Manual.
4. Changed generic descriptor to specialty pesticide throughout.
5. Corrected minor spelling errors throughout.
6. Deleted signal word on page 4 of label per March 26, 1997 letter from EPA.
7. Storage and Disposal: Added "Pesticide" to first heading according to Chapter 13 of the Label Review Manual.
8. Pesticide Disposal, Container Disposal: Changed statements to be consistent with Chapter 13 of the Label Review Manual.
9. Use Directions for Turfgrass: Changed rate range to a single rate of 133 lb/acre (3 lb/1000 sq ft) for white grub larvae.

<sup>†</sup> Formerly, a marketing partnership of American Cyanamid Company and Rohm and Haas Company, now wholly owned by Dow AgroSciences

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# **MACH 2\* 1.5G**

EPA Reg. No. 62719-473

## **Specimen Label Notes:**

1. Corrected spelling of "Not" in Not for Sale or Use in Nassau and Suffolk Counties, New York.
2. Revised First Aid (per PR Notice 2001-1) and Precautionary Statements sections.
3. Revised first paragraph under Environmental Hazards.
4. Corrected minor spelling errors.
5. Added "Pesticide" to first heading in Storage and Disposal box and changed Pesticide Disposal and Container Disposal statements.
6. Changed rate range for white grub larvae to single application rate.

(Base Label):

(Logo) Dow AgroSciences

# MACH 2\* 1.5G

**For control of immature stages of certain insects in turfgrass**

***Not for Sale or Use in Nassau and Suffolk Counties, New York***

**Active Ingredients:**

|  |        |
|--|--------|
| halofenozide: Benzoic acid, 4-chloro-,<br>2-benzoyl-2-(1,1-dimethylethyl) hydrazide..... | 1.5%   |
| Inert Ingredients .....  | 98.5%  |
| Total Ingredients .....  | 100.0% |

**Keep Out of Reach of Children**

## CAUTION      PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

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### Precautionary Statements

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#### Hazard to Humans and Domestic Animals

**Causes Moderate Eye Irritation • Harmful If Absorbed Through Skin**

**Avoid contact with skin, eyes or clothing.**

#### Personal Protective Equipment (PPE)

**WPS USES:** Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR part 170) - in general, agricultural plant uses are covered - must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handlers PPE requirements may be reduced or modified as specified in the WPS.

**NON-WPS USES:** Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR part 170) - in general, only agricultural plant uses are covered by the WPS - must wear:

- Shirt and pants
- Gloves
- Shoes plus socks

**User Safety Recommendations**

**Users should:**

- 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.

**First Aid**

**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 on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-992-5994 for emergency medical treatment information.

**Environmental Hazards**

For terrestrial uses, 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 washwaters.

This chemical has the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

**Notice:** Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-473

EPA Est. \_\_\_\_\_

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**Specialty Insecticide**

Net Weight \_\_\_\_\_

(Label Booklet Cover):

(Logo) Dow AgroSciences

# MACH 2\* 1.5G

**For control of immature stages of certain insects in turfgrass**

**Not for Sale or Use in Nassau and Suffolk Counties, New York**

**Active Ingredients:**

halofenozide: Benzoic acid, 4-chloro-,  
2-benzoyl-2-(1,1-dimethylethyl) hydrazide..... 1.5%

Inert Ingredients ..... 98.5%

Total Ingredients ..... 100.0%

**Keep Out of Reach of Children**

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### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**Refer to inside of label booklet for additional precautionary information including Personal Protective Equipment (PPE) and Directions for Use including Storage and Disposal.**

**Notice:** Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

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## Specialty Insecticide

Net Weight \_\_\_\_\_

(Page 1 through end):

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## Precautionary Statements

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### Hazard to Humans and Domestic Animals

**Causes Moderate Eye Irritation • Harmful If Absorbed Through Skin**

**Avoid contact with skin, eyes or clothing.**

### Personal Protective Equipment (PPE)

**WPS USES:** Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR part 170) - in general, agricultural plant uses are covered - must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handlers PPE requirements may be reduced or modified as specified in the WPS.

**NON-WPS USES:** Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR part 170) - in general, only agricultural plant uses are covered by the WPS - must wear:

- Shirt and pants
- Gloves
- Shoes plus socks

### User Safety Recommendations

**Users should:**

- 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.

### First Aid

**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.

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### Environmental Hazards

For terrestrial uses, 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 washwaters.

This chemical has the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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### Directions for Use

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exemptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets out of treated area until dusts have settled.

### Storage and Disposal

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

**Pesticide Storage:** Store in a cool, dry, well-ventilated area. Prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of reach of children.

**Pesticide Disposal:** Wastes resulting from the use of this product (that cannot be used according to label instructions) may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Steps to be Taken if Material is Released or Spilled:** Appropriate protective equipment must be worn when handling a spill of this material. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with handling of this material. Do not walk through spilled material. Dispose of pesticide as directed above. In spill or leak incidents, keep unauthorized people away.

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### General Information

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MACH 2\* 1.5G specialty insecticide can be used as directed on any turfgrass site (lawns, sod, turf areas). Examples of such sites include, but are not limited to: residential and commercial lawns, grounds or lawns around business and office complexes, shopping centers, multi-family and residential apartment

complexes, airports, military and other institutions, cemeteries, parks and picnic areas, playgrounds, schools, athletic fields, golf courses, and sod farms. MACH 2 1.5G mimics the action of a natural insect hormone that induces the molting and metamorphosis process in insects. MACH 2 1.5G is highly active against grubs and lepidopterous larvae listed as target pests. MACH 2 1.5G controls listed larvae through a novel mode-of-action that starts within hours of ingestion. Actual death of larvae may take several days to occur.

### Use Rate Determination

Carefully read, understand, and follow label use rates, recommendations and restrictions. Apply the amount specified in the following table with a properly calibrated granular spreader. Check calibration periodically to ensure that equipment is working properly. Avoid overlaps that will increase rates above those recommended. Failure to follow the Directions for Use and all precautions on this label may result in grass injury or poor pest control.

### Application Timing

The activity of MACH 2 1.5G is expressed following ingestion by the target larvae. Consequently, the timing of application is dependent upon the feeding behavior of the target pest. Consult your local State Extension Specialists for more specific information regarding timing of applications.

To achieve optimal effectiveness, the following turf management practices are suggested:

- **Minimize thatch** since heavy thatch will prevent the insecticide from penetrating to the area where insects are feeding.
- **Make applications prior to egg hatch or when larvae are small** and actively feeding (late spring through mid summer).
- **MACH 2 1.5G is not dependent upon immediate irrigation for activation;** however, water must transport the material through the thatch. Under conditions of drought it is recommended to water in MACH 2 1.5G.

### Use Directions for Turfgrass

| Pest   | Amount of MACH 2 1.5G              | Comments  |
|--|------------------------------------|---|
| <b>Lepidoptera larvae such as:</b><br>larvae of cutworms, sod webworms, armyworms, and fall armyworms  | 67 lb/acre<br>(1.55 lb/1000 sq ft) | Apply MACH 2 1.5G at first sign of pest damage. A single repeat application can be made if needed.  |
| <b>White grub larvae such as:</b><br>Japanese beetle, <i>Popillia japonica</i><br>Northern masked chafer, <i>Cyclocephala borealis</i> , Southern masked chafer, <i>Cyclocephala lurida</i> ,<br>May/June beetle, <i>Phyllophaga</i> spp.,<br>Black turfgrass ataenius, <i>Ataenius spretulus</i> , Green June beetle, <i>Cotinus nitida</i> , Annual bluegrass weevil larvae, <i>Hyperodes</i> spp.,<br>Billbugs, <i>Sphenophorus</i> spp.,<br>Aphodius beetle, <i>Aphodius</i> spp.,<br>European chafer, <i>Rhizotrogus majalis</i> , Oriental beetle, <i>Exomala orientalis</i> | 133 lb/acre<br>(3 lb/1000 sq ft)   | MACH 2 1.5G may be used as either a preventative or an early curative treatment (see application timing instructions). Make only one application. |



9/10

Do not apply more than 133 lb (2 lb active ingredient) per acre per year regardless of pests controlled.

Use of this product on "Tifdwarf" Bermudagrass greens may result in short term discoloration of the turfgrass. Since many agronomic factors may influence this response it is recommended that users treat a small area at recommended rates prior to initiating large-scale use.

**For Sod Farms:** Allow at least 7 days to elapse between last application and harvest of sod.

### Suggested Spreader Settings

| Spreader Type                    | Ground or PTO Speed (mph) | Recommended Rates (lb/1000 sq ft) |       |       |     | Pattern Setting |
|----------------------------------|---------------------------|-----------------------------------|-------|-------|-----|-----------------|
|                                  |                           | Width of Coverage (ft)            | 1.5   | 2.3   | 3.0 |                 |
| LESCO rotary                     | 3                         | 8                                 | D 1/2 | F 1/4 | X   | 0.0             |
| Scott Rotaries (R-7, R-7X)       | 3                         | 8                                 | H     | H 3/4 | X   | 6               |
| Scott Rotaries (R-8, R-8A, SR-1) | 3                         | 8                                 | I     | K     | X   | 6               |
| Cyclone                          | X                         | X                                 | X     | X     | X   | X               |
| Spyker                           | X                         | X                                 | X     | X     | X   | X               |
| Vicon (model 03)                 | 5.6                       | 19                                | 24    | 30    | X   | X               |
| PrizeLawn                        | 3                         | 4                                 | 3 1/4 | 3 1/2 | X   | A               |
| Lely                             | 4.5                       | 22                                | 3 1/2 | 3 3/4 | X   | II-C            |

Apply MACH 2 1.5G with a drop or rotary spreader designed to apply granular insecticides. Avoid the use of spreaders that would apply this product in narrow rows or concentrated bands. Calibrate the spreader according to the manufacturer's directions for adjusting the spreader settings such that the spreader delivers the appropriate application rate recommended above. Apply this product uniformly over the lawn or ornamental turf area. A more uniform application can be made by spreading half the required amount over the area and then applying the remaining half at a right angle to the previous direction. Avoid streaking, skips, or overlaps during application.

### Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

### Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

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### **Limitation of Remedies**

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The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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