

# Specimen Label



Dow AgroSciences

# MACH 2<sup>®</sup> 2SC

## Specialty Insecticide

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

**Not for Sale or Use in Nassau and Suffolk Counties, New York. New York State Requires This Product be Used Only by Professional Applicators.**

### Active Ingredients:

halofenozide: Benzoic acid, 4-chloro-,2-benzoyl-2-(1,1-dimethylethyl) hydrazide .....	22.3%
Inert Ingredients .....	77.7%
Total .....	100.0%

Contains 2 lb of active ingredient per gallon.

EPA Reg. No. 62719-471

## 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.)

### Precautionary Statements

#### Hazard to Humans and Domestic Animals

#### Harmful If Absorbed Through Skin Or Inhaled

Avoid contact with skin or clothing. Avoid breathing spray mist.

#### 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.

#### Engineering Controls

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 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.

**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 a poison control center or doctor for further 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.

**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 elsewhere on this label. 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.

## Directions for Use

### Shake Well Before Using

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 sprays have dried.

### 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. Do not allow product to freeze.

**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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

## General Information

MACH 2® 2SC specialty insecticide can be used as directed on the following commercial turfgrass sites (lawns, sod, turf areas). Examples of such sites include: commercial lawns, grounds or lawns around business and office complexes, shopping centers, airports, military and other institutions, cemeteries, golf courses, and sod farms.

MACH 2 2SC mimics the action of a natural insect hormone that induces the molting and metamorphosis process in insects. MACH 2 2SC is highly active against grubs and lepidopterous larvae listed as target pests. MACH 2 2SC 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 ground sprayer. 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 2SC 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 early applications prior to egg hatch up to when larvae reach the second instar** (late spring through mid-summer).
- **MACH 2 2SC 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 2SC.
- **Avoid mowing turf until after product is washed from leaf blades** so that uniformity of application is not affected.

### Application Equipment

Apply MACH 2 2SC through conventional spray equipment in a minimum of 1 gallon finished spray per 1000 sq ft to provide uniform spray distribution. **Do not** apply MACH 2 2SC through sprayers that use cluster spray nozzles due to variability in application use rates and spray patterns. **Do not** apply MACH 2 2SC to golf course tees and greens using low-pressure (i.e., 200 psi or less) hand wand applicators. Application using backpack equipment is permitted. Calibrate application equipment prior to use. Avoid skips by using marker dyes or foam aids.

## Tank Mixtures

Read the label of each tank mixture product used and follow the Precautionary Statements, Directions for Use, and other restrictions. MACH 2 2SC may be tank mixed with fluid fertilizers or other pesticides. When applied according to label directions, a tank mixture of MACH 2 2SC and an EPA-registered pesticide will provide control of susceptible pests listed on the respective labels for the two products. A compatibility test (see Compatibility Test Section) is suggested before tank mixing this product with fluid fertilizers or other pesticides.

## Compatibility Test

Before mixing MACH 2 2SC with fluid fertilizers or other pesticides, it is advisable to test compatibility by mixing all the components in a small jar in proportionate quantities.

### Compatibility Test Mixing Instructions

Amount of Pesticide Added to Spray Carrier (Assuming Volume of 50 GPA)		
IF		ADD
Pesticide Formulation	Rate per Acre	Level Teaspoons per Pint Jar of Carrier Solution
Dry	1 lb	1/2
Liquid	1 qt	1/2

This compatibility test is designed for 50 gallons of spray solution per acre. The table above gives general guidelines for use rate ratios of pesticides to be tank mixed with this product. Determine the amount of pesticide to tank mix by referring to the pesticide label(s). Then calculate the amount of pesticide to add to the jar based on use rate ratios in the table. For a use rate of 1 lb per acre of dry pesticide or 1 quart per acre of liquid pesticide, add 1/2 teaspoon to the jar. Add MACH 2 2SC based on use rate ratios for liquid pesticides. For a use rate of 1.5 fl oz per 1000 sq ft (app. 2 qt/acre) add 1 teaspoon to the jar. For changes in spray volume or insecticide rate, make appropriate changes in the ingredients for the test. Shake well after mixing. If pesticide(s) does not form crystals, flakes, sludge, jelly, oily films or layers, then the tested components are compatible. Incompatibility in any of the above described forms will usually occur within 5 minutes after mixing. If components are incompatible, the use of a compatibility agent is recommended. Repeat the above test with a suitable compatibility agent (one-half teaspoon per pint jar is equivalent to 1 pint per 50 gallons of spray solution).

## Mixing Instructions

**MACH 2 2SC - Alone:** Fill the spray tank to about three-fourths of the desired volume with clean water and begin tank agitation. Add the recommended amount of MACH 2 2SC to the tank and complete the filling process. Maintain agitation through the mixing and spraying operations. If MACH 2 2SC is allowed to settle, agitate thoroughly to resuspend before spraying is resumed.

**MACH 2 2SC - Tank Mixes:** First determine the compatibility of MACH 2 2SC and the desired tank mixture partner(s) in water by mixing small proportional quantities in advance. See the Compatibility Test section of this label. Then adhere to the following mixing procedures:

1. Fill the sprayer one-half to two-thirds full with clean water. Start agitation and continue agitation through mixing and spraying operations.
2. Add a compatibility agent if needed. Read and follow all of the information found on the product label for the selected compatibility agent.
3. If a wettable powder or dry flowable pesticide is used, make a slurry with the water, and add it slowly to the tank.
4. Add MACH 2 2SC and other flowable formulations to the tank.
5. Add emulsifiable concentrate pesticide to the tank.
6. Add water-soluble liquid pesticide formulations followed by surfactants, marker dyes or foams, or drift control additives while continuing the filling process.
7. Maintain good agitation at all times until the contents of the tank have been sprayed. If the spray mixture is allowed to settle, agitate thoroughly to resuspend the mixture before resuming spraying.

## Use Directions for Turfgrass

Pests	MACH 2 2SC qt/acre	Comments
<b>Lepidoptera larvae such as:</b> larvae of armyworms, cutworms, fall armyworms, and sod webworms	2 (1.5 fl oz per 1000 sq ft)	Apply at first sign of pest damage. A single repeat application can be made if needed.
<b>White grub larvae such as:</b> annual bluegrass weevil larvae ( <i>Hyperodes</i> spp.) aphodius beetle ( <i>Aphodius</i> spp.) billbugs ( <i>Sphenophorus</i> spp.) black turfgrass ataenius ( <i>Ataenius spretulus</i> ) European chafer ( <i>Rhizotrogus majalis</i> ) green June beetle ( <i>Cotinus nitida</i> ) Japanese beetle ( <i>Popillia japonica</i> ) May/June beetle ( <i>Phyllophaga</i> spp.) northern masked chafer ( <i>Cyclocephala borealis</i> ) Oriental beetle ( <i>Exomala orientalis</i> ) southern masked chafer ( <i>Cyclocephala lurida</i> )	4 (2.9 fl oz/ 1000 sq ft)	MACH 2 2SC may be used as either a preventative treatment or early treatment against young actively feeding larvae that have not developed past the second instar (see application timing instructions). Make only one application.

Apply in sufficient water to achieve thorough coverage. Do not apply more than 1 gallon of product (2 lb active ingredient) per acre per year regardless of pests controlled.

Use of this product on "Tidwarf" 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.

**Chemigation:** Do not apply this product through any type of irrigation system.

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

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### 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 Limitation of Remedies.

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### 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.

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### 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

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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### Revisions:

1. Included application timing up to second instar.