

62719-474

4/16/2002

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E3B / MACH 2 Plus Fert 86% / Amend / 02-06-02
file: MACH 2 Plus Fert 86%-474 06Feb02d.doc

MACH 2* Plus Fertilizer (0.86% A.I.)

EPA Reg. No. 62719-474

Registration Notes:

Source label text based on RohMid[†] EPA accepted copy dated October 4, 2000 and Dow AgroSciences' notification coded "E3B / MACH 2 Plus Fert 86% / Notif / 02-01-02."

Proposed Changes by Amendment:

1. On base label and label booklet cover, changed statement to the following: "New York State Requires This Product be Used Only by Professional Applicators."
2. Added Guaranteed Analysis box for percent of nitrogen, phosphoric acid and soluble potash.
3. Based upon the following acute tox studies, revised First Aid section per PR Notice 2001-1 and Precautionary Statements section:

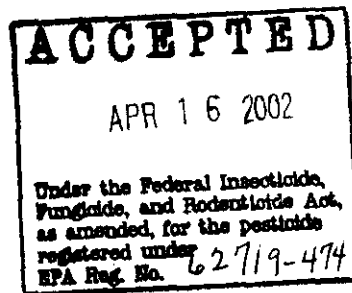
Acute Toxicity Category by Route of Exposure:

Route of Exposure	MACH 2 Plus Fertilizer (0.86% A.I.)
Oral LD ₅₀	Cat IV
Dermal LD ₅₀	Cat III
Inhalation	Cat IV
Ocular Irritation	Cat III
Dermal Irritation	Cat IV
Dermal Sensitization	Non-sensitizer

4. Environmental Hazards: Revised first paragraph in accordance with Chapter 9 of the Label Review Manual.
5. Corrected minor spelling errors throughout.
6. Deleted signal word on page 6 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.

[†] 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* Plus Fertilizer (0.86% A.I.)

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Specimen Label Notes:

1. On base label and label booklet cover, changed statement to the following: "New York State Requires This Product be Used Only by Professional Applicators."
2. Added Guaranteed Analysis box for percent of nitrogen, phosphoric acid and soluble potash.
3. Revised First Aid section per PR Notice 2001-1 and Precautionary Statements section.
4. Revised first paragraph of Environmental Hazards.
5. Corrected minor spelling errors throughout.
6. Storage and Disposal: Added "Pesticide" to first heading according to Chapter 13 of the Label Review Manual.
7. Changed Pesticide Disposal and Container Disposal statements.

MACH 2* Plus Fertilizer (0.86% A.I.)

EPA Reg. No. 62719-474

Registration Notes for Previous Labeling Actions:

Final printed labeling based on RohMid[†] EPA accepted copy dated October 4, 2000 and Dow AgroSciences' notification coded "E3B / MACH 2 Plus Fert 86% / Notif / 02-01-02."

Changes by notification:

1. Added Dow AgroSciences' EPA registration number throughout, 62719-474, assigned January 16, 2002 in a letter from EPA to Dow AgroSciences (edits not shown).
2. Added standard Agricultural Use Requirements box to base label and label booklet in accordance with Chapter 11 of the Label Review Manual and PR Notice 93-7 (edits not shown).
3. Use Directions for Turfgrass: In the table, combined all white grub larvae under one application rate. This was done in accordance with PR Notice 98-10, section II.B.
4. Referral statements to Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies were revised per EPA correspondence from Joanne I. Miller dated August 31, 2000 and Dow AgroSciences response to Donald R. Stubbs dated November 20, 2000 (edits not shown).

Final printed labeling based on RohMid[†] EPA accepted copy dated October 4, 2000.

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(Base Label):

(Logo) Dow AgroSciences

MACH 2* Plus Fertilizer (0.86% A.I.)

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.....0.86%

Inert Ingredients 99.14%

Total Ingredients 100.0%

Guaranteed Analysis †	
Total Nitrogen (N)	XX%
Available Phosphoric Acid (P ₂ O ₅)	XX%
Soluble Potash (K ₂ O)	XX%
Primary plant foods derived from . . . [Manufacturer should list sources of NPK, e.g., urea, diammonium phosphate, and muriate of potash].	

[†Editor's note: Guaranteed analysis will vary and will be determined by the manufacturer.]

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

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 or enclosed cabs 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.

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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 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also 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.

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

Store in a Dry Place

EPA Reg. No. 62719-474

EPA Est. _____

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Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

Specialty Insecticide

Net Weight _____

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(Label Booklet Cover):

(Logo) **Dow AgroSciences**

MACH 2* Plus Fertilizer (0.86% A.I.)

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.....	0.86%
Inert Ingredients	99.14%
Total Ingredients	100.0%

Guaranteed Analysis †	
Total Nitrogen (N)	XX%
Available Phosphoric Acid (P ₂ O ₅)	XX%
Soluble Potash (K ₂ O)	XX%
Primary plant foods derived from . . . [Manufacturer should list sources of NPK, e.g., urea, diammonium phosphate, and muriate of potash].	

[†Editor's note: Guaranteed analysis will vary and will be determined by the manufacturer.]

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.)

<p>Agricultural Use Requirements</p> <p>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.</p>
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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.**

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.

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

Store in a Dry Place

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Specialty Insecticide

Net Weight _____

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(Page 1 through end):

Precautionary Statements

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 or enclosed cabs 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 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also 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.

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Directions for Use

Store in a Dry Place

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 turf, 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 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.

General Information

MACH 2* Plus Fertilizer (0.86% A.I.) 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 Plus Fertilizer (0.86% A.I.) mimics the action of a natural insect hormone which induces the molting and metamorphosis process in insects. MACH 2 Plus Fertilizer (0.86% A.I.) is highly active against grubs and lepidopterous larvae listed as target pests. MACH 2 Plus Fertilizer (0.86% A.I.) controls listed larvae through a novel mode-of-action which 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 with a properly calibrated fertilizer 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 Plus Fertilizer (0.86% A.I.) 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 Plus Fertilizer (0.86% A.I.) 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 Plus Fertilizer (0.86% A.I.).

Use Directions for Turfgrass

Pest	Amount of MACH 2 Plus Fertilizer (0.86% A.I.)	Comments
Lepidoptera larvae such as: larvae of cutworms, sod webworms, armyworms, fall armyworms	116 lb/acre (2.7 lb/1000 sq ft)	Apply at first sign of pest damage. A single repeat application can be made if needed.
White grub larvae such as: Japanese beetle, <i>Popillia japonica</i> Northern masked chafer, <i>Cyclocephala borealis</i> , Southern masked chafer, <i>Cyclocephala lurida</i> , May/June beetle, <i>Phyllophaga</i> spp., Black turfgrass ataenius, <i>Ataenius spretulus</i> , Green June beetle, <i>Cotinus nitida</i> , Annual bluegrass weevil larvae, <i>Hyperodes</i> spp., Billbugs, <i>Sphenophorus</i> spp., Aphodius beetle, <i>Aphodius</i> spp., European chafer, <i>Rhizotrogus majalis</i> , Oriental beetle, <i>Exomala orientalis</i>	232 lb/acre (5.4 lb/1000 sq ft)	MACH 2 Plus Fertilizer (0.86% A.I.) may be used as either a preventative or an early curative treatment (see application timing instructions). Make only one application.

Do not apply more than 232 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 (Calibration Gauge Setting Number)

Spreader Type	Recommended Rates (lb/1000 sq ft)			Pattern Setting
	2.7	4.0	5.4	
LESCO rotary	X	X	X	X
Scott Rotaries (R-7, R-7X)	X	X	X	X
Scott Rotaries (R-8, R-8A, SR-1)	X	X	X	X
Cyclone	X	X	X	X
Spyker	X	X	X	X
Vicon	X	X	X	X
Lely	X	X	X	X

Apply MACH 2 Plus Fertilizer (0.86% A.I.) 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.

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's 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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EPA-accepted ___/___/___