

10163-274

3-4-2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Terre R. Allen  
Registration Specialist  
Gowan Company LLC  
P.O. Box 5569  
Yuma, AZ 85366-5569

MAR 4 2003

Subject: Rubigan™ A.S. Turf and Ornamental  
EPA Reg. No. 10163-274  
Your Amendment dated November 26, 2002

Dear Ms Allen:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

1. Change the heading "RECAUTIONARY STATEMENTS" to "PRECAUTIONARY STATEMENTS".
2. Revise the First Aid Statements to comply with PR Notice 2001-1 as follows:

<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>

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<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOT LINE NUMBER: 1-888-478-0798</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-888-478-0798 for emergency medical treatment information.	

3. In the Directions for Use, delete the two boxes and the labeling comments which appear immediately under the subheadings "Turf" and "Ornamentals". Add the following text in one box so that it appears under the Agricultural Use Requirements Box:

<p><b>NONAGRICULTURAL USE REQUIREMENTS</b></p> <p>The requirements in this box apply to uses of this product that are <b>NOT</b> within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.</p>
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Rubigan™ A.S. Turf and Ornamental  
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4. Change all table headings "Rate Recommendations for Rubigan A.S. ..." to "Application Rates for Rubigan ...." Delete the word "recommended" from the table column heading. Use of the word "recommendations" implies that the application rates are not a mandatory requirement.
5. In the direction for use under "Tank Mixtures", add the following language to the end of the paragraph:

"This product must not be tank mixed with products containing label prohibitions against tank mixing. No label dosage rates should be exceeded and the most restrictive label limitations and precautions must be adhered to."

A stamped copy is included for your records. Please submit two (2) copies of the final printed label before you release the product for shipment.

If you have any questions, please call Robert Westin at (703) 305-6700.

Sincerely,



Mary L. Waller  
Product Manager(21)  
Fungicide Branch  
Registration Division (7505C)

Enclosure

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

MAR 4 2003

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the use as a  
registered under EPA Reg. No.

**Rubigan™ A.S.**

10163-277 Turf and Ornamental

A locally systemic fungicide for the control of specified disease on turf grasses and ornamentals. For use on golf courses, parks, athletic fields, commercial and residential areas. To be applied only by or under the supervision of commercial applicators responsible for disease and weed control programs.

	% By Wt.
<b>ACTIVE INGREDIENT</b>	
Fenarimol: <i>a</i> -(2-chlorophenyl)- <i>a</i> -(4-chlorophenyl)-5-pyrimidinemethanol.....	11.6%
<b>OTHER INGREDIENTS</b> .....	88.4%
<b>TOTAL</b>	<b>100.0%</b>

Contains 1 pound active ingredient per gallon

### KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

#### FIRST AID

**If in eyes:** Immediately flush with plenty of water. Call a physician if irritation develops.  
**If on skin:** Wash all exposed areas with plenty of soap and water. Get medical attention if irritation develops.  
**If inhaled:** If discomfort occurs, remove individual to fresh air. If breathing difficulty occurs, get medical attention. If not breathing, provide cardiopulmonary resuscitation assistance (mouth-to-mouth) and call a physician.  
**If swallowed:** Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-888-478-0798.**

#### RECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes eye irritation. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist and contact with skin, eyes and clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selections chart.

#### Applicators and Other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or Viton
- Shoes plus socks
- Protective eyewear

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.

#### 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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

NET CONTENTS \_\_\_\_\_ GALLONS

EPA Reg. No. 10163-274  
EPA Est. No. 37429-GA-2

**Gowan**

Gowan Company  
P.O. Box 5569  
Yuma, Arizona 35366-5569

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**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. 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 disposing of equipment wash waters. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas.

**DIRECTIONS FOR USE**

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

- Coveralls
- Chemical-resistant gloves such as barrier laminate or butyl rubber
- Shoes plus socks
- Protective eyewear

**GENERAL INFORMATION**

Rubigan A.S. Turf and Ornamental fungicide is a locally systemic product that provides both protective and curative (eradicator) action. Rubigan A.S. Turf and Ornamental is recommended for use as a foliar spray for the control of selected turf and ornamental diseases.

**Chemigation:** Do not apply Rubigan A.S. Turf and Ornamental through any type of irrigation system.

**TURF**

**Agricultural Use Requirements for Uses Within the Scope of the Worker Protection Standard:** For use of this product on turf grown for sod or seed production, follow PPE and Reentry restrictions in the Agricultural Use Requirements section of this label.

**Agricultural Use Requirements for other Turf Areas:** No Worker Protection Standard worker reentry restrictions or worker notification requirements apply when this product is applied to turf in golf courses, parks, athletic fields and commercial and residential areas.

**Application Directions**

Rubigan A.S. Turf and Ornamental should be added to the spray tank during the last half of the filling operation. Agitate thoroughly during the filling and spraying operation to ensure a uniform mixture. Use only a properly calibrated fungicide sprayer with nozzle screens and inline strainers no finer than 50 mesh. Calibrate spray equipment to deliver sufficient water volume for uniform coverage.

**For use on:** golf courses, parks, athletic fields and commercial and residential areas.

**Maximum Application and Use Rate:** No single application should exceed 8 fl oz/1000 sq ft. For all turf uses, do not make more than 12 applications per year or exceed the cumulative rate of 32 fl oz per 1000 sq ft per year.

**RATE RECOMMENDATIONS FOR RUBIGAN A.S. TURF AND ORNAMENTAL FOR GREENS AND TEES**

Disease Organism	Recommended Rate of Rubigan A.S. (fl oz/1000 sq ft)	Spray Interval (days)	Disease Pressure	Comments (see below)
Dollar spot ( <i>Sclerotinia homoeocarpa</i> ) ( <i>Moellerodiscus spp.</i> )	0.75	10-21	Low to Moderate	11
	1.5	14-28	Moderate to Heavy	12
Copper spot ( <i>Gloeocercospora sorghi</i> )	0.75	10-21	Low to Moderate	11
	1.5	14-28	Moderate to Heavy	12
Rhizoctonia blight/brown patch ( <i>Rhizoctonia solani</i> )	1.5	7-14	Low to Moderate	11
	1.5	7-14	Moderate to Heavy	Use tank mixes as discussed below
Necrotic ring spot ( <i>Leptosphaeria korrae</i> )	2.0	30	All	9, 10
Summer patch ( <i>Magnaporthe poae</i> )	2.0	30	All	9, 10

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**RATE RECOMMENDATIONS FOR RUBIGAN A.S. TURF AND ORNAMENTAL FOR GREENS AND TEES (Continued)**

Disease Organism	Recommended Rate of Rubigan A.S. (fl oz/1000 sq ft)	Spray Interval (days)	Disease Pressure	Comments (see below)
Fusarium blight ( <i>Fusarium culmorum</i> ) ( <i>Fusarium poae</i> )	2.0	30	All	9, 10
Take-all patch ( <i>Gaeumannomyces graminis</i> var. <i>avenae</i> )	4.0	30	All	9, 13
Spring dead spot <i>Leptosphaeria korrae</i> ( <i>Ophiosphaerella herpotricha</i> ) ( <i>Gaeumannomyces graminis</i> var. <i>graminis</i> )	4.0-6.0	Single Application	All	4, 9
Fusarium patch/pink snow mold ( <i>Gertachia nivalis</i> )	8.0	1 or 2 Applications	All	2, 3, 8
Typhula blight/gray snow mold ( <i>Typhula incarnata</i> ) ( <i>Typhula ishikariensis</i> )	8.0	1 or 2 applications	All	2, 8

When treating golf greens and tees, always treat aprons and approaches.

**RATE RECOMMENDATIONS FOR RUBIGAN A.S. TURF AND ORNAMENTAL FOR OTHER TURF AREAS**

Disease Organism	Recommended Rates of Rubigan A.S. (fl oz/1000 sq ft)	Spray Interval (days)	Disease Pressure	Comments (see below)
Dollar spot ( <i>Sclerotinia homoeocarpa</i> ) ( <i>Moellerodiscus spp.</i> )	0.75	30	All	11
Anthrachnose ( <i>Colletotrichum graminicola</i> )	1.75-3.5	30	All	1
Copper spot ( <i>Gloeocercospora sorghi</i> )	0.75	10-21	Low to Moderate	11
	1.5	14-28	Moderate to Heavy	12
Rhizoctonia blight/brown patch ( <i>Rhizoctonia solani</i> )	1.5	7-14	Low to Moderate	11
	1.5	7-14	Moderate to Heavy	Use tank mixes as discussed below
Necrotic ring spot ( <i>Leptosphaeria korrae</i> )	4.0-8.0	1 or 2 applications	All	5, 9
Summer patch ( <i>Magnaporthe poae</i> )	4.0-8.0	1 or 2 applications	All	5, 9
Fusarium blight ( <i>Fusarium culmorum</i> ) ( <i>Fusarium poae</i> )	4.0-8.0	1 or 2 applications	All	5, 9
Fusarium patch/pink snow mold ( <i>Gertachia nivalis</i> )	8.0	1 or 2 applications	All	2, 3, 8
Typhula blight/gray snow mold ( <i>Typhula incarnata</i> ) ( <i>Typhula ishikariensis</i> )	8.0	1 or 2 applications	All	2, 8
Corticium red thread ( <i>Laetisaria fuciformis</i> )	8.0	30	All	2, 7
Take-all patch ( <i>Gaeumannomyces graminis</i> )	4.0-8.0	1 or 2 applications	All	6, 9
Powdery mildew ( <i>Erysiphe graminis</i> )	2.0-4.0	Single Application	All	12
Spring dead spot <i>Leptosphaeria korrae</i> ( <i>Ophiosphaerella herpotricha</i> ) ( <i>Gaeumannomyces graminis</i> var. <i>graminis</i> )	4.0-6.0	Single Application	All	4, 9

1. Applications for anthracnose should be applied prior to the anticipated appearance of disease symptoms and continued at 30-day intervals as long as conditions for disease continue.
2. Single high rate applications such as required to control these diseases may inhibit germination of creeping bentgrass for up to 30 days following application.
3. This recommendation does not apply to the control of fusarium patch (pink patch) as it occurs under the conditions of cool, wet weather in the western United States (CA, OR, WA). Under these conditions, Rubigan A.S. Turf and Ornamental should be applied at 2.0 fl oz/1000 sq ft every 3 to 4 weeks during periods of favorable disease conditions.
4. For spring dead spot, make a single application of 4.0 fl oz/1000 sq ft in September, or 6.0 fl oz/1000 sq ft in October or November.
5. Rubigan A.S. Turf and Ornamental should be applied preventively in a single 4.0-8.0 fl oz/1000 sq ft application in April or as a split application with 2.0-4.0 fl oz/1000 sq ft applied in April and 2.0-4.0 fl oz/1000 sq ft applied in May. Use the higher rate listed when area to be treated has a previous history of disease infestation.
6. For take-all patch, Rubigan A.S. Turf and Ornamental should be applied preventively in a single 8.0 fl oz/1000 sq ft application or as a split application each at 4.0 fl oz/1000 sq ft applied at 30-day intervals. Applications should be made prior to permanent snow cover or frozen soil.
7. Applications for corticium red thread should begin 1 to 2 weeks prior to the anticipated appearance of disease symptoms. Applications should be made at 30-day intervals with a maximum of 2 applications during any one season.
8. The initial application for fusarium patch and typhula blight should be made as a standard foliar application prior to permanent snow cover or frozen soil. A second application may be necessary in late winter or early spring if conditions are favorable for renewed disease development.
9. Applications for necrotic ring spot, summer patch, fusarium blight, take-all patch and spring dead spot, should be applied to the turfgrass and thoroughly irrigated with 0.5 to 1 inch of water.
10. For greens and tees, Rubigan A.S. Turf and Ornamental should be applied preventively at 2.0 fl oz/1000 sq ft beginning in April with a second application at 2.0 fl oz/1000 sq ft in May. If conditions are favorable in the fall for disease occurrence, applications 14 days prior to the anticipated appearance of disease symptoms may be necessary.
11. All applications for dollar spot, copper spot and rhizoctonia blight should be made as standard foliar applications. Applications made prior to the appearance of visible disease symptoms (preventative applications) should be made at the lowest rate and longest interval listed above.
12. Applications to areas with visible symptoms of dollar spot, copper spot and powdery mildew should be made at the highest rate listed for that disease and continued at the shortest spray interval for that rate until the disease is brought under control. At this time, the lower rate, longer spray interval recommendations can begin.
13. For greens and tees, Rubigan A.S. Turf and Ornamental should be applied preventative in two applications of 4.0 fl oz/1000 sq ft at 30-day intervals. Applications should be made prior to permanent snow cover or frozen soil. If conditions are favorable in the fall for disease occurrence, applications 14 days prior to the anticipated appearance of disease symptoms may be necessary.

**Tank Mixtures**

When disease pressure from rhizoctonia blight increases to moderate, control will be enhanced by tank mixing Rubigan A.S. Turf and Ornamental with a contact fungicide such as Daconil 2787. If a tank mixture is used, apply the minimum label rate recommended for the control of rhizoctonia blight. Under conditions of heavy rhizoctonia blight pressure, additional sequential applications of a contact fungicide may be necessary to keep the disease adequately controlled.

**Additional Disease Control**

If turf is treated for additional diseases, Rubigan A.S. Turf and Ornamental is compatible with most commonly used turf fungicides. Leaf spotting organisms such as *Dreschslera* and *Curvularia* will require the use of a fungicide such as Daconil 2787 for control. If a tank mixture is used, follow label directions for the use of that product and apply at the minimum rate recommended for control of the target disease organism.

**RATE CONVERSION CHART FOR TURF**

Label Rates of Rubigan A.S./1000 sq ft.	Quantity Rubigan A.S. Per Acre
0.75 fl oz	1 qt
1.50 fl oz	2 qt
2.00 fl oz	2.75 qt
4.00 fl oz	5.5 qt
6.00 fl oz	8 qt
8.00 fl oz	11 qt

**ORNAMENTALS**

**For Control of Powdery Mildew of Field, Landscape or Container Grown Ornamentals**

**Agricultural Use Requirements for Uses within the Scope of the Worker Protection Standard:** For use of this product on field grown ornamentals, follow PPE and Reentry restrictions in the Agricultural Use requirements section of this label.

**Agricultural Use Requirements for other Areas:** No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is applied to landscape ornamentals.

Rubigan A.S. Turf and Ornamental is a locally systemic fungicide for the prevention or therapeutic control of powdery mildew of field or landscape grown roses and field, landscape or container grown ornamentals. Once dried on the leaf surface, Rubigan A.S. Turf and Ornamental is absorbed into the plant foliage and is not easily washed off by the rain or overhead irrigation. Used as directed Rubigan A.S. Turf and Ornamental will not harm the foliage or floral tissues.

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**Note to User (Phytotoxicity):** Environmental factors significantly affect phytotoxicity. While Rubigan A.S. Turf and Ornamental has been tested on numerous ornamental plants without causing serious phytotoxicity, because of the numerous varieties grown, it is recommended that a small group of plants be treated at the recommended rate under anticipated growing conditions and observed for phytotoxic symptoms. Application of Rubigan A.S. Turf and Ornamental at recommended rates may cause leaf puckering and other growth effects on the foliage of rose cultivars growing under cool, foggy or overcast conditions. Plants growing under such conditions develop more slowly and are more sensitive to these growth effects. The rose cultivars Royalty and Visa have exhibited growth effects under these conditions while the same cultivars growing under sunny conditions have exhibited no such effects.

**Applications Directions**

Rubigan A.S. Turf and Ornamental should be added to the spray tank during the last half of the filling operation. Continuous agitation during completion of filling and spraying will be necessary to ensure a uniform spray mixture. Apply Rubigan A.S. Turf and Ornamental with sufficient pressure and spray volume to ensure thorough wetting of all plant surfaces. Special care should be taken to thoroughly wet new terminal growth and plant areas already diseased. Applications of Rubigan A.S. Turf and Ornamental should begin at the earliest appearance of signs of symptoms of disease.

**RUBIGAN A.S. TURF AND ORNAMENTAL RATE RECOMMENDATIONS  
FIELD, LANDSCAPE, AND CONTAINER GROWN ORNAMENTALS**

Species	Disease	Recommended Rates and Timing for Rubigan A.S. Turf and Ornamental†
Ajuga Begonia Calendula Chrysanthemum Dahlia Delphinium, Hydrangea Phlox Sweet Pea Verbena Zinnia	Powdery Mildew	3-5 fl oz/100 gallons every 10 to 14 days
Crape Myrtle Euonymus Photinia Roses (field and landscape only)	Powdery Mildew	6-10 fl oz/100 gallons every 10 to 14 days
Crabapple Hawthorn	Scab Rust Powdery Mildew	4-12 fl oz/100 gallons every 7 to 14 days beginning at green tip
Ornamental Dogwood	Powdery Mildew	8 fl oz/100 gallons every 14 to 28 days

† Apply Rubigan A.S. Turf and Ornamental at the recommended rate and maximum spray interval only when using as a preventative or when leaf infection is less than 10 percent. Use the higher rates and shorter spray intervals when greater than 10 per cent leaf infection occurs and environmental conditions encourage disease spread.

**Tank Mixtures:** In areas where black spot occurs, Rubigan A.S. Turf and Ornamental should be tank-mixed with an EPA registered, commercially available fungicide. Use the recommended label rate of the selected tank-mix product for black spot control and the appropriate rate of Rubigan A.S. Turf and Ornamental from the table above.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.  
**Storage:** Avoid freezing. Do not store near heat or open flame. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose of waste.  
**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:** 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 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.  
For other product information, contact GOWAN COMPANY or see Material Safety Data Sheet.**

**NOTICE ON CONDITIONS OF SALE**

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

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EPA Text Pending  
5-10-02