# Rubigan® E.C.

A locally systemic fungicide for the control of scab, powdery mildew and rusts of apple; scab and powdery mildew of pear; leaf spot and powdery mildew of cherry; and powdery mildew of grape.

ACTIVE INGREDIENT
Fenarimol: a-(2-chlorophenyl)-a-(4-chlorophenyl)-5-pyrimidinemethanol 12.0%
OTHER INGREDIENTS 88.0%
TOTAL 100.0%

Contains 1 pound active ingredient per gallon.
Contains petroleum distillate.

## WARNING – AVISO

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	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 swallowed	Immediately call a poison control center or doctor.			
	Do not induce vomiting unless told to by a poison control center or a doctor.			
	Do not give any liquid to the person.			
	Do not give anything by mouth to an unconscious or convulsing person.			
If inhaled	Move person to fresh air.			
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.			
	Call a poison control center or doctor for further 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.			
	HOT LINE NUMBER			
Have the product containe	er or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-478-			
0798 for emergency media	cal treatment information.			
	NOTE TO PHYSICIAN			
This product may pose an	aspiration pneumonia hazard. Contains petroleum distillate.			

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING - AVISO

Causes substantial but temporary eye injury. Causes skin irritation. Harmful if swallowed, inhaled or absorbed through the skin. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist.

#### 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 *G* on an EPA chemical resistance category selections chart.

#### Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants.
- Chemical-resistant gloves such as barrier laminate or Viton
- Chemical-resistant footwear plus socks
- Goggles or face shield
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

NET CONTENTS \_\_\_\_ QUART



#### **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.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply when weather conditions favor runoff or drift from the target area. Do not contaminate water when disposing of equipment wash waters.

#### **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 workers 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 over short-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate or Viton
- Chemical-resistant footwear plus socks
- · Goggles or face shield
- Chemical-resistant headgear for overhead exposure

#### **GENERAL INFORMATION**

Rubigan E.C. fungicide is an emulsifiable concentrate formulation designed to control various foliar and fruit diseases of apple, pear, cherry and grape listed in each respective crop section. Rubigan E.C. controls susceptible fungal diseases by preventing the formation of certain sterol components and other materials necessary for their growth. Rubigan E.C. is absorbed into the plant foliage and is not easily washed off by rain or overhead irrigation. Used as directed, Rubigan E.C. will not harm the foliage. Rubigan E.C. is compatible with most insecticides, miticides and fungicides commonly recommended for the crops listed.

Use Rubigan E.C. as a foliar spray to control the diseases listed in the apples, pears, cherries and grapes crop sections. **Note:** Use recommendations for Rubigan E.C. for all crops are made according to geographic area: **Eastern United States** (East of the Rocky Mountain continental divide); and **Western United States** (West of the Rocky Mountain continental divide). Follow use recommendations in the appropriate section for your area.

#### **GENERAL USE PRECAUTIONS**

- Do not graze cover crops treated with Rubigan E.C. or harvest forage for silage or hay.
- Apply Rubigan E.C. with ground application equipment only.
- Do not apply Rubigan E.C. through any type of irrigation system.
- Observe rate restrictions and preharvest intervals outlined for each crop.

#### MIXING AND APPLICATIONS DIRECTIONS

Fill the spray tank to at least one-half the required spray volume and start agitation. Add (in order) dry flowable, wettable powder and flowable (aqueous suspension) products to the spray tank. Then add the recommended rate of Rubigan E.C. followed by other emulsifiable concentrate and solution products. Allow time for thorough mixing after adding each product. Finish filling spray tank and maintain continuous agitation in the spray tank during mixing, filling and spraying operations.

#### **Tank Mixing**

For control of each disease listed in the following table, Rubigan E.C. may be used alone or in combination (tank mix) with a protectant fungicide active against each respective disease. Use the protectant fungicides at applications rates and according to their respective product labels. 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.

#### **Use of Surfactants**

When used alone, tank mix Rubigan E.C. with a surfactant. Surfactants compatible with Rubigan E.C. include R-56 Spreader Sticker, Wilbur Ellis Co.; Bio-88 Spreader Activator, Kalo Laboratories; Regulaid, Kalo Laboratories; Leafact 80A Activator, Puregro Co.; Induce, Helena Chemical Co.; LI-700, Loveland Industries; Triton B-1956, Rohm and Haas, Latron B-1956, Rohm and Haas, or others where prior use has shown compatibility. Certain states require registration of surfactants. Where applicable, verify that the surfactant is registered for agricultural use in your state.

#### **Spray Volume and Concentration**

Mix the recommended dosage of Rubigan E.C. (consult appropriate crop section for your area) in sufficient water to ensure adequate coverage and apply as a concentrate or dilute spray using ground application equipment only. Attention should be given to sprayer speed and calibration, wind speed, and tree and vine foliar canopy to ensure adequate spray coverage with Rubigan E.C.

#### **Rate Ranges and Spray Intervals**

Where a rate range is provided in use directions for Rubigan E.C., use higher rates when moderate to severe infection conditions exist or are anticipated. Where a range in the spray interval is indicated (e.g. 7 to 10 days), use the shortest spray interval within the indicated spray interval range if moderate to severe infection conditions exist. Climatic conditions, varietal susceptibility, disease history and current disease status of the orchard or vineyard must be considered when choosing rates and spray schedules for Rubigan E.C. Begin applications of Rubigan E.C. according to label directions or as recommended by your state agricultural experiment station or extension service specialist.

#### **USE AND DOSAGE INFORMATION**

Apples and Pears: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide)
Rubigan E.C.<sup>1</sup>

Crop Disease (Growth stage of tree) Rubigan E.C. spray mix	Use rate per acre (fl oz)	Use rate per 100 gal of water dilute <sup>2</sup>	Maximum spray interval (days)	Use Directions and Restrictions
	( 0-)	(fl oz)	(44,5)	Ocal Whee Buking F.O. is used to control and
Apples Scab (Green tip – cover sprays³) Rubigan E.C. & protectant	8-12	3-4	7-10	Scab- When Rubigan E.C. is used to control scab, at least two consecutive applications should be applied.  Scab – Post Infection Spray Schedule: Apply "1 <sup>st</sup> spray within 96 hours from
Scab – Post-Infection (Green tip – cover sprays³)				the beginning of the targeted infection period.  Apply the "2" spray" within 7 days of the "1st spray". Growers who do not have access to accurate on-farm scab infection period data can not
Rubigan E.C. & protectant				make effective use of this spray schedule.
1 <sup>st</sup> spray	8-12	3-4		Tank Mixing (Rubigan E.C. and Protectant):
2 <sup>nd</sup> spray	8-12	3-4	7	When tank- mixed with a protectant fungicide use
				recommended rates of the protectant fungicide. <b>Restrictions:</b> Do not apply more than 12 fl oz of
				Rubigan E.C. per acre per application and more
Powdery Mildew				than 84 fl oz per season.
(Tight cluster – cover sprays)	8-12	3-4	14	
				Do not apply within 30 days of harvest.
Rusts				
(Tight cluster – 2 <sup>nd</sup> cover spray)	8-12	3-4	7-10	
Pears Scab				Application timing: After petal fall (see Restrictions)
(Petal fall – cover sprays)				Tank Mixing (Rubigan E.C. and Protectant):
Rubigan E.C. & protectant	8-12	3-4	7-10	When tank-mixed with a protectant fungicide use
,				recommended rate of the protectant fungicide.
				Restrictions:
				Do not apply to pears until after petal fall. Such
Powdery Mildew and Rusts	0.40	2.4	4.4	application(s) will only control scab, powdery
(Petal fall – cover sprays)	8-12	3-4	14	mildew and rust infections that occur after petal fall.  Do not apply more than 12 fl oz of Rubigan E.C.  per acre per application and more than 84 fl oz per acre per season.
				Do not apply within 30 days of harvest.

- 1. When using "tree row volume" calculations, do not apply less than 6 fl oz of Rubigan E.C. per acre. Use a surfactant when Rubigan E.C. is applied alone. See "Use of Surfactants" section in the General Information section.
- 2. Dilute sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.
- 3. It is recommended that Rubigan E.C. be tank mixed with a protectant fungicide for purposes of apple scab resistance management. Rubigan E.C., however, may be applied alone from green tip to tight cluster. During this period, apply Rubigan E.C. at 8-12 fl oz/acre of 3-4 fl oz per 100 gallons of water on a 7-day spray interval. If the last planned spray application of Rubigan E.C. occurs within the green tip to tight cluster window, Rubigan E.C. must be tank mixed with a protectant fungicide.

Cherries: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide)

Rubigan E.C.<sup>1</sup>

Crop Disease Growth Stage	Use rate per acre (fl oz)	Use rate per 100 gal. of water dilute <sup>2</sup> (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Cherries Leaf spot and Powdery Mildew (Petal fall – Post-harvest)	6-12	3-4	7-10	Application timing: Begin applications at "petal fall" and continue until "harvest". One or two "post-harvest" applications may be made within 45 days after "harvest". If an "alternate row" spray program is used, do not exceed a 7-day spray interval.  Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application and more than 36 fl oz per acre prior to "harvest".  Rubigan E.C. may be applied up to and after "harvest".

<sup>&</sup>lt;sup>1</sup>Use a surfactant when Rubigan E.C. is applied alone. See "Use of Surfactants" section in the General Information section.

Grapes: Disease Control Rates for Eastern United States (East of the Rocky Mountain Continental Divide)

Rubigan É.C.1

Crop Disease Growth Stage	Use rate per acre (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Grapes Powdery Mildew Pre-bloom sprays Post bloom Summer sprays	2-4 4-6 5-6	14-18 14-18 14-18	Application timing: Rubigan E.C. may be applied alone or in tank mix combinations with recommended rates of a protectant fungicide, insecticide and/or miticide. Begin applications as recommended by your State Extension Specialist or Agricultural Experiment Station, or Certified Pest Control Advisor. Use rates per acre as specified by the crop phenology.  Restrictions: Do not apply more than 6 fl oz of Rubigan E.C. per acre per application and 19 fl oz per acre per season.  Precautions: Use of Rubigan E.C. at higher labeled rates prior and just after bloom may result in slight foliar effects consisting of leaf cupping and/or darker green leaf color, however, these effects do not affect the fruit yield or quality.  Preharvest Interval: Do not apply within 21 days of harvest.

<sup>&</sup>lt;sup>1</sup>Use a surfactant when Rubigan E.C. is applied alone.

Apples: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide)

Rubigan E.C.

Crop Disease (Spray Schedule)	Use rate per acre (fl oz)	Use rate per 100 gal of water dilute <sup>2</sup> (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Apples Scab (Regular)	8-12	2-3	7-10	Scab- Application Timing: Begin applications at "green tip" or when environmental conditions become favorable for primary scab development.
(Post-Infection)				Scab – Post Infection Spray Schedule: Apply "1 <sup>st</sup> spray" within 96 hours from the beginning of the first "primary scab" infection period. Apply the "2 <sup>nd</sup> spray" within 7 days if a scab infection period has occurred within 3 days of the "1 <sup>st</sup> spray". If not,
1 <sup>st</sup> spray	8-12	2-3	-	apply within 96 hours after the beginning of the
2 <sup>nd</sup> spray	8-12	2-3	7	next scab infection period.
. ,				Growers who do not have access to accurate on-farm scab infection period data cannot make effective use of this spray schedule.
Powdery Mildew	8-12	2-3	14	Powdery Mildew: Apply Rubigan E.C. at the following stages of growth: "green tip", "pre-pink" or "pink" "petal fall" and "first cover".  Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application or more than 84 fl oz per are per season.  Preharvest Interval: Do not apply within 30 days of harvest.

<sup>&</sup>lt;sup>1</sup>When using "tree row volume" calculations, do not apply less than 6 fl oz of Rubigan E.C. per acre. When Rubigan E.C. is used for "Post-Infection"

<sup>&</sup>lt;sup>2</sup>Dilute Sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

control of scab do not apply less than 8 fl oz per acre.

<sup>2</sup>Dilute sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Pears: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide) Rubigan E.C.1

Crop Disease (Spray Schedule)	Use rate per acre (fl oz)	Use rate per 100 gal of water dilute <sup>2</sup> (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Pears Scab	0.40	2.2	7.40	Application timing: Rubigan E.C. may be applied alone or in tank mix combination with
(Petal fall-cover sprays)	8-12	2-3	7-10	recommended rates of a protectant fungicide.  Scab and Powdery Mildew: Do not apply to pears until after petal fall. Such application(s) of Rubigan E.C. will control only scab or powdery mildew resulting from infection periods occurring after petal fall.
Powdery Mildew (Petal fall – cover sprays)	8-12	2-3	14	Restrictions: Do not apply more than 12 fl oz of Rubigan E.C. per acre per application or more than 84 fl oz per acre per season.  Preharvest Interval: Do not apply within 30 days of harvest.

<sup>&</sup>lt;sup>1</sup>When using "tree row volume" calculations, do not apply less than 6 fl oz of Rubigan E.C. per acre. When Rubigan E.C. is used for "Post-Infection"

Cherries: Disease Control Rates for Western United States (West of the Rocky Mountain Continental Divide)

Rubigan E.C.1

CropDisease Spray Schedule	Use rate per acre (fl oz)	Use rate per 100 gal. of water dilute <sup>2</sup> (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions
Cherries				Application timing: Rubigan E.C. may be applied
Leaf spot				alone or in tank mix combination with
(late bloom-harvest)	6-12	2-3	14-21	recommended rates of a protectant fungicide.
,				Begin applications at "late bloom" to "petal fall" and continue until "harvest".
Powdery Mildew				Restrictions: Do not apply more than 12 fl oz of
(late bloom-harvest)				Rubigan E.C. per acre per application or more than
				48 fl oz per acre prior to "harvest".
				Rubican E.C. may be applied up to "harvest".

<sup>&</sup>lt;sup>1</sup>Dilute sprays are sprayed until point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

Grapes: Disease Control Rates Western United States (West of the Rocky Mountain Continental Divide)

Rubigan E.C.						
CropDisease (Spray Schedule)	Use rate per acre (fl oz)	Maximum spray interval (days)	Use Directions and Restrictions			
Grapes Powdery Mildew (Pre-bloom) 2 weeks Pre-bloom Full Bloom 1st Post-bloom 2nd Post-bloom	2-3 4 6 6	14-18 14-18 14-18 14-18	Application timing: Rubigan E.C. may be applied alone or in tank mix combination with recommended rates of a protectant fungicide. Depending on the length of time from "full bloom" to "veraison", amount of foliar canopy and/or the Rubigan E.C. spray interval, choose one of the three spray schedules.			
			Use sulfur on an appropriate schedule to maintain "mildew free" foliage prior to the initial Rubigan E.C. application.			
(Pre-bloom/Extended) 2 weeks Pre-bloom Full-bloom 1st Post-bloom 2nd Post-bloom 3rd Post-bloom	2 3 4 5 5	14-18 14-18 14-18 14-18 14-18	Precautions: Use of Rubigan E.C. at higher than recommended rates during the "pre-bloom" stage of growth may result in slight foliar effects consisting of leaf cupping and/or darker green leaf color, however, these effects do not affect the fruit yield or quality.  Restrictions: Do not apply more than 6 fl oz of Rubigan E.C. per acre per application or more than 19 fl oz per acre per season.			
(Full bloom) Full-bloom 1 <sup>st</sup> Post-bloom 2 <sup>nd</sup> Post-bloom 3 <sup>rd</sup> Post-bloom	3 4 6 6	14-18 14-18 14-18 14-18	Preharvest Interval: <u>Do not apply within 21 days of harvest.</u>			

control of scab do not apply less than 8 fl oz per acre.

2Dilute sprays are sprayed until the point of runoff. Gallonage of dilute sprays will vary depending on tree size, density of canopy and stage of growth of the trees and tree spacing in the orchard.

#### STORAGE AND DISPOSAL

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

**Pesticide 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 AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE FULLEST EXTENT PERMITTED BY LAW, GOWAN COMPANY'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY'S SOLE DISCRETION.

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