

# ENZONE®

## FUNGICIDE - INSECTICIDE - NEMATICIDE FUMIGANT

### FOR USE ONLY IN THE STATE OF CALIFORNIA

This labeling must be in the possession of the user at the time of pesticide application.

Soil fumigant solution for management of nematodes and phytophthora root rot in established orange, grapefruit, lemon, almond, peach, prune, and plum (fresh prune) orchards; oak root fungus in established almond, peach, prune, and plum orchards; nematodes and phylloxera in established grapes; nematodes, oak root fungus, and phytophthora root rot in orange, grapefruit, lemon, almond, peach, prune, and plum (fresh prune) preplant sites; nematodes, phylloxera, and oak root fungus in grape preplant sites; nematodes, oak root fungus, and phytophthora root rot in almond, peach, prune, and plum (fresh prune) replant sites;

Not for use in greenhouses or other enclosed areas

### WARRANTY LIMITATIONS AND DISCLAIMER

1. Entek warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated when used in accordance with the use directions under normal conditions. Entek neither makes, nor authorizes any agent or representative to make, any other warranty of fitness or of merchantability, guarantee or representation, express or implied, concerning this material.

2. Critical and unforeseeable factors beyond Entek's control prevent Entek from eliminating all risks in connection with the use of this material. Such risks include, but are not limited to, damage to plants and crops to which the material is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for uses stated hereon and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability resulting from the handling, storage, and use of this material (except those assumed by Entek in 1 above). Entek shall not be liable for incidental or consequential damages.

### PATENTS AND PATENTS PENDING

Entek Corporation owns manufacturing, composition and/or method of use patents relating to the product contained herein, including the following U.S. Patents: 4726144, 5022912, 5041240, 5165920, 5167966, 5256424, 5288495 and 5332580. Other U.S. and foreign patents are pending.

A license is hereby granted to the purchaser of this product, under Entek's U.S. patent(s) only, and only for the use of the products contained herein, and solely in accordance with the instructions on this label. NO OTHER LICENSE, EXPRESS OR IMPLIED, IS GRANTED. NOT FOR EXPORT.

### TRADEMARKS

ENZONE® is a registered trademark of Entek Corporation.

### Active Ingredient:

Sodium tetrathiocarbonate .....	31.8%
Inert Ingredients .....	68.2%
Total .....	100.0%

Contains 3.4 pounds of active ingredient per gallon.  
Density is 10.6 pounds of formulated product per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**DANGER PELIGRO**

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.)

SEE ADDITIONAL PRECAUTIONARY STATEMENTS  
ON THE NEXT PANEL

### STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**IF ON SKIN:** Flush contaminated area with plenty of water. Remove contaminated clothing. Call a physician.

**IF SWALLOWED:** If victim is conscious and alert, immediately give 1-2 cups water and call a physician or poison center. Induce vomiting, preferably by giving syrup of ipecac or by gently placing two fingers in the back of the throat. If victim is unconscious, do not give anything by mouth.

**NOTE TO PHYSICIAN:** This product will decompose rapidly in the stomach and release H<sub>2</sub>S and CS<sub>2</sub>. The material should be rapidly removed from the stomach by emesis or gastric lavage. Signs of systemic toxicity (headache, dizziness, nausea, and vomiting), if present, may be due to H<sub>2</sub>S and CS<sub>2</sub>, and should be managed accordingly.

**Physician: Call 1 (800) 424-9300 for further information.**

NET CONTENTS \_\_\_\_\_ Gallons

EPA Reg. No. : 68891-2

EPA Est. No. : 61842-WA-1.

Manufactured for  
Entek™

Entek Corporation  
6835 Deerpath Road, Suite E  
Elkridge, MD 21075

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### DANGER

**CORROSIVE.** Causes severe skin burns and eye irritation. Do not get in eyes, on skin, or on clothing. May be fatal if swallowed. Do not taste or swallow. Do not use the mouth to siphon from containers or blow clogged lines. Harmful if inhaled. Do not inhale vapors or spray mist.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators, persons coming into direct contact with treated water, and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant footwear plus socks,
- Waterproof gloves,
- Protective eyewear,
- Respirator equipped with either an organic-vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Discard clothing and other absorbent materials that have been heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instruction for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Wash PPE after each day's use.

**ENGINEERING CONTROLS STATEMENTS:** When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### 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:** Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwaters and rinsate.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not mix with acids or oxidizing agents. Do not rinse equipment with water containing acid.

## GENERAL INFORMATION

ENZONE® is a water soluble soil fumigant recommended for the management of plant parasitic nematodes, phylloxera,

phytophthora root rot and oak root fungus. Applications are made by metering ENZONE into irrigation water. ENZONE controls only those pests that are in the wetted zone at the time of the treatment, but may not affect pests that migrate in or hatch after treatment. Multiple applications of this product in a single cropping season may be necessary to control the pests listed on this label. ENZONE is a non-systemic material that should be used as a management tool in a pest control program.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 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. Read the entire label. Use this product only as specified on the label.

**For use only in the state of California.**

Do not apply within two weeks prior to harvest. Do not use in areas adjacent to or draining to marine or estuarine waters.

When making applications to established trees or vines, the crop must be established in the field for at least one year prior to treatment, or injury may occur. Refer to specific crop application information on this label.

#### 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 in this labeling about personal protective equipment (PPE), notification to workers, and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

**ENTRY RESTRICTIONS:** Entry (including early entry that would otherwise be permitted under the WPS) by any person -- other than a correctly trained and equipped handler who is performing a WPS-defined handling task -- is PROHIBITED from the start of application until 4 days after application.

**NOTIFICATION:** Notify workers of the application by warning them orally and by posting fumigant warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state: (1) "DANGER/PELIGRO," (2) "Area under fumigation, DO NOT ENTER/NO ENTRE," (3) the date and time of fumigation, (4) "[product name] Fumigant in use," and (5) name, address, and telephone number of the applicator." Post the fumigant warning sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, size, and timing of posting and removal.

**PPE FOR ENTRY DURING THE RESTRICTED PERIOD:** PPE for handler entry that is permitted by the WPS is listed

in the "Hazards to Humans and Domestic Animals" section of this labeling.

## STORAGE AND DISPOSAL

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

**STORAGE:** Do not store below 10°F (-12°C)

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent) all containers and offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or by procedures approved by state and local authorities.

## CHEMIGATION

Refer to **Chemigation Instructions** for chemigation use directions. Do not apply this product through any irrigation system unless the chemigation instructions are followed. Do not apply ENZONE within 100 feet of a potable water well.

## LOW-VOLUME IRRIGATION

(Refer to Chemigation Instructions)

1. Soil should be near field capacity at the time of application. ENZONE treatments should not be made in the first irrigation following an extended period of time without an irrigation.
2. The irrigation system must be maintained properly. Prior to irrigation, the system should be checked to determine the uniformity of water flow. Any plugged emitters should be replaced.
3. Continuously meter ENZONE through irrigation system to maintain concentration for up to a 12 hour period (refer to CROP TABLES). Soil should not be wetted to the point of runoff during treatments. As irrigation schedules permit, up to a 21 day interval between applications is recommended (refer to CROP TABLES).
4. Continue irrigation 1-4 hours after lines and emitters are flushed clear of ENZONE solution in order to seal the soil.
5. Do not irrigate within 48 hours of the ENZONE application, or loss of effectiveness may result.
6. DO NOT allow the concentration to drop below the minimum recommended ppm a.i. DO NOT allow injection time to fall below the recommended minimum. DO NOT exceed maximum gallonage per acre per treatment.

## FLOOD AND FURROW IRRIGATION

1. Soil moisture should be just below field capacity for rapid penetration and uniform coverage of ENZONE treated water. For best results, pre-irrigation is recommended.
2. Continuously meter ENZONE to maintain concentration (refer to CROP TABLES) into a volume of water until uniform coverage has been achieved on all runs within the treatment area. Head of water must be sufficient to uniformly cover the treatment area within 6 hours of beginning application. Once application is complete, and uniform coverage has been achieved, irrigation must be stopped to prevent dilution of ENZONE treated water. For best results, infiltration of the ENZONE treated water should occur within 2-3 hours of completion of application.
3. Length of run, head to tail, within the treatment area should not exceed one quarter mile.
4. Tailwater must not be allowed to leave the treated field. Water must be trapped at the end of the run or returned for recycling on the same field.
5. DO NOT allow the concentration to drop below the minimum recommended ppm a.i. DO NOT allow injection time to fall below the recommended minimum. DO NOT exceed maximum gallonage per acre per treatment.
6. A 30 day minimum interval between applications is recommended except where other intervals are stated in the CROP TABLES.

## GALLONAGE CALCULATIONS

The effective use of this material is based on maintaining a desired concentration in parts per million of ENZONE's active ingredient (PPM A.I.) in the irrigation water for a specified length of time.

In order to maintain the desired concentration, the total number of gallons of ENZONE needed per acre must be determined prior to application. The number of gallons used per acre per treatment must fall within the gallons per acre (GAL/ACRE) range listed in the Crop Tables.

The gallons per acre required per treatment depends on:

- Desired PPM A.I. per the Crop Table
- Number of hours ENZONE is injected (HRS INJECTION) per the Crop Tables
- Irrigation flow rate in gallons per hour per acre (GPHAC)

The gallons per acre of ENZONE is calculated by using the following formula:

$$\text{ENZONE GAL/ACRE} = \frac{\text{PPM A.I.} \times \text{GPHAC} \times \text{HRS. INJECTION}}{400,000}$$

## CROP TABLES

### GRAPES

#### For management of plant-parasitic nematodes in established vineyards.

Begin treatments when soil temperature is a minimum of 58° F at 6 inches.

Early season: Apply after bud break.

Late season: Apply after harvest.

Depending on the age and condition of the crop, injury may occur when ambient air temperature exceeds 90° F for 5 hours on the day of application. Therefore, using the lowest concentration (PPM A.I.) listed in the table below is recommended.

**Crop must be established in the field for at least one year prior to treatment or injury may occur.**

<u>METHOD</u>	<u>PPM A.I.</u>	<u>RECOMMENDED HRS. INJECTION</u>	<u>GAL/ACRE/TMT</u>	<u>#TMTs/YR</u>	<u>MAX GAL/ACRE/YR</u>
Drip	950-1450	Up to 8	5-30	2-6	75
Flood & Furrow	250-500	Up to 6	20-30	1-3	90

DO NOT allow the concentration to drop below the minimum recommended PPM A.I. DO NOT exceed maximum gallonage per acre per treatment.

### GRAPES

#### For management of grape phylloxera in established vineyards.

Treatments may be applied over the entire season.

Depending on the age and condition of the crop, injury may occur when ambient air temperature exceeds 90° F for 5 hours on the day of application. Therefore, using the lowest concentration (PPM A.I.) listed in the table below is recommended.

**Crop must be established in the field for at least one year prior to treatment or injury may occur.**

<u>METHOD</u>	<u>PPM A.I.</u>	<u>RECOMMENDED HRS. INJECTION</u>	<u>GAL/ACRE/TMT</u>	<u>#TMTs/YR</u>	<u>MAX GAL/ACRE/YR</u>
Drip	700-1450	Up to 8	5-30	2-6	75
Flood & Furrow	250-500	Up to 6	20-30	1-3	90

DO NOT allow the concentration to drop below the minimum recommended PPM A.I. DO NOT exceed maximum gallonage per acre per treatment.

## CROP TABLES (cont.)

### GRAPES

#### Preplant Treatments Applied Through Low Volume and Surface Irrigation Systems

#### **For management of plant-parasitic nematodes, grape phylloxera, and oak root fungus.**

Make application 1-4 weeks before planting. Before treatment, remove dead or diseased plant material that may harbor pests. Cultivate, level, and excavate treatment area before application to ensure adequate and uniform water penetration. Install and test irrigation system to make sure it operates within efficiency standards. **Settle the soil with at least one irrigation before treatment.** Soil moisture should be at or near field capacity at the time of application. If using a low volume irrigation system, flush lines completely after the application and allow clear water to run through the system for one hour. **Irrigate at least once after treatment and before planting.** This irrigation should be made no less than 48 hours after an application. If 2 applications are made, they should be spaced 7-14 days apart. Do not plant earlier than 7 days after application or injury may occur. When planting, care must be taken to avoid mixing untreated soil from outside the treatment site with treated soil or lack of effectiveness may result. After initial treatment, maintenance applications should follow as recommended by this label. Recommended rates for the initial preplant treatment are listed below according to irrigation system.

<u>METHOD</u>	<u>PPM A.I.</u>	<u>RECOMMENDED HRS. INJECTION</u>	<u>GAL/ACRE/TMT</u>	<u>#TMTs/YR</u>	<u>MAX GAL/ACRE/YR</u>
Drip	2400	6-12	20-60	1-2	100
Flood & Furrow	950	Up to 6	30-60	1-2	100

**DO NOT** allow the concentration to drop below the recommended minimum PPM A.I. **DO NOT** allow injection time to fall below the recommended minimum. **DO NOT** exceed maximum gallonage per acre per treatment.

Injection time should be as long as possible without causing excessive runoff and without exceeding the maximum gallons per acre listed above.

**Do not treat existing vines that may be on the same irrigation system.**

## CHEMIGATION INSTRUCTIONS

Apply this product only through the following types of irrigation systems:

- Surface - flood, (basin), furrow, border,
- Low Volume (ground or underground) drip, drip tape, strip tubing, foggers, jets, misters, minisprinklers.

Low volume emitters must fall within a pressure limit of 10 to 45 psi and a flow rate of 3 to 50 gph (gallons per hour). Based on these limits, the spray pattern and trajectory of the emitters will range from 10 to 15 feet in diameter and 0.5 to 1.5 feet in height.

Apply ENZONE only through the irrigation systems listed above that meet the pressure and flow rate guidelines specified above. DO NOT APPLY through equipment such as mosquito foggers, power misters, etc.

Do not apply when wind speed exceeds 10 mph.

Check irrigation system and emitters to ensure all systems are operating normally before injecting ENZONE. Crop injury or lack of effectiveness can result from nonuniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the safety devices for public water systems, prescribed below, are in place. In addition, check local and state regulations regarding pesticide injection into public water systems.

A person knowledgeable about the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Do not inject ENZONE into irrigation systems simultaneously with acids or chlorine.

**Inject ENZONE into the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.**

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of the hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Use a pesticide supply tank when applying ENZONE. Do not dilute ENZONE more than 50% in the supply tank except for individual site treatments (see Label Directions). Application must begin within 2 hours after mixing or lack of effectiveness may result. Depending upon the type of injection system being used, premixing may not be necessary since ENZONE mixes well with water in the irrigation line.

### POSTING

This sign is in addition to any sign posted to comply with the Worker Protection Standard.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any other public facilities not including public roads; or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses. Posting must conform to the following requirements:

- Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas.
- The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and remain posted for 96 hours. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.
- All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.