

Imidan[®] 2.5-EC

Agricultural Insecticide
Emulsifiable Concentrate

ACTIVE INGREDIENT: Phosmet	% By Wt.
N-(Mercaptomethyl) phthalimide S-(O,O-dimethyl phosphorodithioate)	27.5%
INERT INGREDIENTS*	72.5%
	TOTAL 100.0%

Contains 2.5 lbs. phosmet per gallon.

* Contains aromatic solvents and petroleum distillate

KEEP OUT OF REACH OF CHILDREN 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.)

STATEMENT OF PRACTICAL TREATMENT

Organophosphate Insecticide

Call a Poison Control Center or a physician immediately. If a known exposure occurs or is suspected, immediately start the recommended procedures below. Simultaneously contact a Poison Control Center, a physician, or the nearest hospital. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms, and follow the advice given.

NOTE: Be sure to advise the person contacted that the compound is a cholinesterase inhibitor.

NOTE TO PHYSICIAN/MEDICAL PERSONNEL: Exposure may cause cholinesterase inhibition. Atropine by injection is antidotal. 2-PAM (Protopam Chloride) is also antidotal when administered early and in conjunction with atropine.

IF SWALLOWED: Immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. If victim is unconscious or convulsing, do not induce vomiting or give anything by mouth.

IF INHALED: Remove to fresh air. If not breathing, clear victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen, preferably with a physician's assistance.

IF ON SKIN: Flush all affected areas with plenty of water for several minutes. Seek medical attention if skin irritation occurs.

IF IN EYES: Hold eyelids apart and flush eyes with plenty of water. Get medical attention if irritation persists.

FOR EMERGENCY MEDICAL RESPONSE AND HAZARD COMMUNICATION ONLY, CALL 1(800) 228-5635 EXT. 283.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING-AVISO

May be fatal if swallowed, inhaled, or absorbed through the skin. Do not breathe dust or spray mist. Do not get in eyes, on skin, or on clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Viton \geq 14 mils
- Socks plus chemical-resistant footwear
- Protective eyewear, such as goggles or face shield

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.

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.

ENVIRONMENTAL HAZARDS

This pesticide is extremely 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. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops while bees are actively visiting the treatment areas.

USE PRECAUTIONS

Read all precautions and directions before using. Apply this product only as specified on this label.

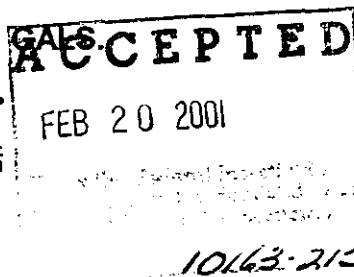
Imidan 2.5-EC is compatible with most commonly used insecticides and fungicides, but is incompatible with alkaline materials such as spray lime, lime sulfur, and Bordeaux mixtures. These materials will reduce the insecticidal activity of Imidan 2.5-EC.

Insecticidal activity may also be reduced when the spray solution has a pH of 7 or higher. The pH of the spray solution must be corrected by the addition of a suitable buffering or acidifying agent for optimum insecticidal activity.

NET CONTENTS _____

Gowan

EPA Reg. No. 10163-215
EPA Est. No. 67545-AZ-1



Gowan Company
P.O. Box 5569
Yuma, AZ 85366

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.

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 24 hours.

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate, Nitrile, Butyl, Neoprene or Viton \geq 14 mils
- Chemical-resistant footwear and socks
- Protective eyewear

PREHARVEST INTERVAL

The required days between the last application and harvest are given in () after each crop name.

DILUTION DIRECTIONS

The rate required for thorough, uniform coverage varies with plant growth at time of application. Except as specified for certain uses, the following rates are intended to cover a broad range of conditions.

Dilute Application

Field and Row Crops: Apply specified rate in 20 to 75 gallons of water per acre.

Tree and Vine Crops: Apply specified rate in 100 to 800 gallons of water per acre.

Concentrate Application

Field and Row Crops: Apply specified rate in not less than 5 gallons of water per acre.

Tree and Vine Crops: Apply specified rate in 20 to 100 gallons of water per acre. Special concentrate equipment is necessary for these applications.

Air Application

Field and Row Crops: Apply specified rate in a minimum of 3 gallons of water per acre.

Tree and Vine Crops: Apply specified rate in a minimum of 5 gallons of water per acre.

USE LIMITATIONS

Do not exceed the maximum rate of Imidan 2.5-EC per acre or the time limitations specified for the individual crops.

CHEMIGATION STATEMENT

Apply this product through one or more of the following types of systems: sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set or hand move). Do not apply this product through any other type of irrigation system.

GENERAL CHEMIGATION INSTRUCTIONS

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop 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.

A person knowledgeable of 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.

FOR CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Do not apply Imidan 2.5-EC through any irrigation system supplied by a public water system unless the water supplied from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

The pesticide injection pipeline must 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, or in cases where there is not a water pump, 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 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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Center pivot, motorized lateral move, or traveling gun types of equipment: Inject into the system for one revolution or run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until Imidan 2.5-EC has been cleared from the last sprinkler head. Do not use end guns. The system should be run at maximum speed for a foliar application.

Wheel move, side roll, end tow, solid set, or hand move types of equipment: Adjust equipment to inject Imidan 2.5-EC over a 30-60 minute period. Shut off injection equipment. Continue to operate irrigation system until Imidan 2.5-EC has been cleared from the last sprinkler head. Imidan 2.5-EC can be injected at the end of the irrigation cycle, or as a separate application. Do not use end guns.

Imidan 2.5-EC must be premixed in a supply tank with water and other appropriate tank-mix chemicals. Agitation is necessary at all times. Caution must be exercised in irrigation waters with a pH greater than 7. If the irrigation cycle will last longer than 8 hours and the Imidan 2.5-EC is pre-mixed in the supply tank, the tank-mix must be buffered to a pH of at least 6-6.5. Please contact your Gowan sales representative should this situation apply.

Application should be in sufficient water and of sufficient duration to apply the recommended rate evenly over the entire treated area. No field runoff can be permitted during chemigation.

SPRINKLER IRRIGATION SYSTEMS

The pesticide injection pipeline must 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, or in cases where there is not a water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

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**RECOMMENDATIONS
FIELD AND FORAGE CROPS**

CROP	PEST	USE RATE PINTS/ACRE	COMMENTS
ALFALFA (Nevada only) (14)	Common Alfalfa Weevil larvae, Egyptian Alfalfa Weevil larvae	2 1/2	Apply in a minimum of 10 gals. of water by ground equipment (20 gals. for dense stands) or 5 gals. of water by aircraft. Consult your local farm advisor regarding the proper timing of application. Larvae should be sprayed when they are actively feeding. For application by irrigation systems, apply specified dosage per acre. Follow all directions under the CHEMIGATION section of this label.
	Pea Aphid	2 1/2	Apply in combination with 1/3 to 2/3 pt. of Dimethoate 267E or 1/4 to 1/2 pt. Dimethoate 4E. Wear the protective clothing specified on the dimethoate label when preparing and using this combination.
<ul style="list-style-type: none"> Do not apply more than once per cutting. Do not graze or cut for hay within 14 days of application. Do not apply to alfalfa in the bloom period. Do not use with latex or pinolene based adjuvants or any agricultural sticker or extender. 			
ALFALFA (Except Arizona, California, and Nevada) (See text for phi)	Common Alfalfa Weevil larvae and adults, Egyptian Alfalfa Weevil larvae and adults, Potato Leafhopper*, Meadow Spittlebug, Alfalfa Blotch Leafminer	3 1/4	Apply in a minimum of 10 gals. of water by ground equipment (20 gals. for dense stands) or a minimum of 2 gals. by aircraft. Consult your local farm advisor regarding the proper timing of application. Larvae should be sprayed when they are actively feeding. Application for adult weevils should be timed to periods of visible activity. For alfalfa blotch leafminer and meadow spittlebug, application should be made when first signs of infestation are visible. For application by irrigation systems, apply specified dosage per acre. Follow all directions under the CHEMIGATION section of this label. * Recommended in the Northeast and North Central States only.
	<ul style="list-style-type: none"> Do not apply more than once per cutting. Do not graze or cut for hay within 7 days of application. Do not apply to alfalfa in the bloom period. This product is not intended for use on alfalfa in Arizona or California. 		
This product is not intended for use on alfalfa in Arizona or California. (10)	Pea Aphid	2 1/2	Apply in combination with 1/3 to 2/3 pt. of Dimethoate 267E or 1/4 to 1/2 pt. Dimethoate 4E. Wear the protective clothing specified on the dimethoate label when preparing and using this combination.
	<ul style="list-style-type: none"> Do not apply more than once per cutting. Do not graze or cut for hay within 10 days of application. Do not apply to alfalfa in the bloom period. This product is not intended for use on alfalfa in Arizona or California. 		

FIELD AND FORAGE CROPS (Continued)

CROP	PEST	USE RATE pints/acre	COMMENTS
COTTON (Except San Joaquin Valley, CA) (21)	Overwintering Generation of Boll Weevil	$\frac{3}{4}$ to $1\frac{1}{2}$ or $1\frac{1}{2}$	Apply in a minimum of 5 gals. of water by ground equipment. or Apply in a minimum of 2 gals. of water by aircraft. The first application should be made at pinhead square to matchhead square stage. Use the higher rates for heavy infestations.
	First, Second or Third Generation Boll Weevils	$2\frac{1}{4}$ to $3\frac{1}{4}$	Apply in a minimum of 5 gals. of water by ground equipment or in a minimum of 2 gals. of water by aircraft. Make applications at intervals from 3 to 5 days depending upon weevil population and weevil migration in fields. Use the higher rates for heavy infestations.
	<ul style="list-style-type: none"> Do not exceed 4 gallons of Imidan 2.5-EC per acre per season. Do not graze or feed forage to livestock. Use on cotton prohibited in Copiah and Clairborne Counties, MS. Lauderdale and Madison Counties, AL, and Lawrence County, TN. Do not apply within one mile of coastal or estuarine waters. Do not apply within 100 feet of aquatic habitats. 		
Field Margins of cultivated fields and forage crop sites listed on this label	Grasshoppers	$4\frac{1}{2}$ to $6\frac{1}{2}$	Apply in 10 to 50 gals. of water per acre (20 to 50 gals. in dense stands) by ground equipment or in 5 to 10 gals. of water by aircraft.
	<ul style="list-style-type: none"> Do not graze livestock in treated areas. Do not harvest for food or feed. 		
POTATOES (7)	Colorado Potato Beetle, Potato Flea Beetle, Potato Leafhopper, Banded Cucumber Beetle, Leafminers, European Corn Borer, Spittlebug, Tarnished Plant Bug, Potato Psyllid	$3\frac{1}{4}$	Apply in a minimum of 20 gallons of water per acre. Repeat applications as necessary throughout the growing season with a minimum of 10 days between applications. For application by irrigation systems, apply specified dosage per acre. Follow all directions under the Chemigation section of this label. Do not apply within 7 days of harvest.
<ul style="list-style-type: none"> Do not apply more than 16 pints/acre/growing season. Use only on potatoes to be harvested by machine. 			

RECOMMENDATIONS
DECIDUOUS SHADE AND ORNAMENTAL TREES
AND WOODY EVERGREENS

CROP	PEST	USE RATE pints	COMMENTS
Deciduous Shade and Ornamental Trees (such as Ash, Beech, Birch, Dogwood, Elm, Hawthorne, Hickory, Liquidambar, Locust, Maple, Oak, and Willow)	Gypsy Moth, Spring Cankerworm, Elm Spanworm, Birch Leafminer, Eastern Tent Caterpillar, Elm Leaf Beetle larvae, Japanese Beetle, Redhumped Caterpillar	$1\frac{2}{3}$ to $2\frac{1}{4}$ pts. per 100 gals.	Imidan 2.5 EC is recommended for use by commercial applicators on deciduous shade and ornamental trees and woody evergreens in parks, residential and recreational areas, along thoroughfares and other localized areas. When insects or their damage occur, apply recommended rate of Imidan 2.5 EC in 100 gals. of water, thoroughly wetting all parts of the affected plants to the point of runoff. For heavy infestations, use the higher dosage rate. Repeat application as necessary to maintain insect control. Choose a cool calm period, preferably in early morning or evening. Do not apply if rain is expected or before leaf surfaces are dry.
Woody Evergreens (such as Arborvitae, Cedar, Fir, Hemlock, Juniper, Pine, Spruce and Yew)	Gypsy Moth		
Birch Trees	Birch Leafminer		
Christmas Tree Plantations	Sawfly species, Scale species, European Pine Shoot Moth (<i>Rhyacionia buoliana</i>), Eastern Pine Shoot Moth, Nantucket Pine Tip Moth, Pitch Eating Weevil, Adult Root Collar Weevil	$3\frac{1}{4}$ pts. per acre	Use in sufficient water to achieve thorough and complete coverage through aerial or ground application equipment. Apply when pest populations reach economic threshold levels as determined by the local Extension Service, Forest Service, or other monitoring system.
Pine Trees (Pacific Northwest Only)	European Pine Shoot Moth (<i>Rhyacionia buoliana</i>)	$3\frac{1}{4}$ pts. per acre or for individual trees, $3\frac{1}{4}$ pts. per 100 gals.	Spray trees for thorough coverage of foliage. Repeat at 2 week intervals throughout flight period of the moths.

**RECOMMENDATIONS
DECIDUOUS SHADE AND ORNAMENTAL TREES
AND WOODY EVERGREENS**

CROP	PEST	USE RATE pints	COMMENTS
Pine Seedlings (White, Slash, and Loblolly)	Pales Weevil (<i>Hyllobius pales</i>), Pitch Eating Weevil, (<i>Pachylobius picivorus</i>)	<p>4% Top Dip Solution</p> <p>To make 5 gals. of 4% solution, use 5 ½ pts.</p> <p>To make 30 gals. of 4% solution, use 4 gals.</p> <p>To make 50 gals. of 4% solution, use 6 gals. + 3 qts.</p> <p>To make 100 gals. of 4% solution, use 13 gals. + 2 qts.</p>	<p>Use Imidan 2.5 EC as a 4% top dip, dipping down to and including root collar. Dip in bundles loose enough to allow solution to penetrate the bundles. Avoid coverage of roots. Swish tops in solution for 10 to 15 seconds to assure adequate coverage of all top growth. Drain and allow seedlings to dry before planting. The addition of an extender such as Nu-Film® 17 may help retain the Imidan 2.5 EC on the foliage under high rainfall conditions. Some slight needle burn and first year growth reduction may occur on treatment of loblolly pine.</p> <p>Agitate frequently to keep Imidan 2.5 EC in suspension. Five gallons of solution should be enough to treat 10,000 seedlings. Do not keep Imidan solution overnight. Make up a fresh batch each day that seedlings will be dipped.</p> <p>Nu-Film® 17 is a registered trademark of the Miller Chemical and Fertilizer Corp.</p>

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

STORAGE: Store in a cool, dry place. Avoid freezing.

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 by other procedures approved by State and local authorities.

SPILL OR LEAK: A small spill can be handled routinely. Use adequate ventilation and wear an air supplied respirator to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Use the following procedures:

1. Spread a suitable absorbent such as clay, sawdust, or kitty litter on the spilled material.
2. Place sweepings into an open drum.
3. Generously cover the contaminated areas with a common household detergent. Using a stiff brush and small amounts of water, work the detergent into the spill material forming a slurry. Do not splatter on one's self or bystanders, and completely avoid skin and eye contact with this material. Brush the slurry into cracks and crevices and allow to stand for 2 to 3 minutes.
4. Spread absorbent such as clay, sawdust, or kitty litter on the slurried liquid. Shovel absorbed material into an open drum.
5. Repeat if necessary.
6. Flush area with water while observing proper environmental considerations.
7. Seal drum and dispose of contaminated material in an approved pesticide landfill.

Large spills must be handled according to a predetermined plan. For assistance in developing a plan, contact Gowan Company.

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 used 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.

®Imidan is a registered trademark of Gowan Company, L.L.C.

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EPA Text Pending
Potatoes 11-16-00