

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

MAR 30 2005

Mr. Steven E. Rogosheske  
Agent for Chem-Tech, Ltd  
1479 West Pond Road  
Eagan, MN 55122

Subject: Deletion of Unsupported Malathion Uses  
Prozap Malathion 57% Emulsifiable Liquid Insecticide-B  
EPA Reg. No. 47000-107 (Formally, 2393-280)  
Corrected Labeling Submitted December 1, 2004  
Federal Register Notices of March 16, 1991, July 19, 1995 and March 6, 1996

Dear Mr. Rogosheske:

The labeling amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, As Amended (FIFRA), is acceptable with the conditions that the label is revised as described below and that two copies of your revised final printed label are submitted before you release the product for shipment.

Clarification of the indoor ventilation statement is needed to avoid inadvertent use of the product inside buildings other than the labeled uses in greenhouses and in stored grain facilities. An acceptable statement would be that cited below.

After using this product in greenhouses and in the stored grain facilities as directed on this label, ventilate thoroughly before occupying enclosed spaces.

Correct the Company and product names and the EPA Reg. No. on the supplemental chemigation labeling and incorporate the labeling onto the main label. The chemigation labeling was previously submitted as a supplemental labeling by the former registrant on December 10, 2003 and bears the product name and EPA Reg. No. of the former registrant.

Please note that the use of protective eyewear is not required for a product classified as toxicity category III for eye irritation and may be removed from the label.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,



Marilyn A. Mautz

Biologist

Insecticide-Rodenticide Branch  
Registration Division (7504C)

# PROZAP<sup>®</sup> MALATHION

3/15

57% Emulsifiable Liquid Insecticide - B

Organophosphate Insecticide

## ACTIVE INGREDIENT:

Malathion\* ..... 57.0%

INERT INGREDIENTS: ..... 43.0%

TOTAL: ..... 100.0%

\*O-O-Dimethyl phosphorodithioate of diethyl mercaptocuccinate.

This product contains xylene-range aromatic solvents.

One gallon contains 5 pounds of Malathion.

## 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	
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Do not give any liquid to the person.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<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 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>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 mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information contact: National Pesticide Information Center at 1-800-858-7378 between 6:30 AM and 4:30 PM Pacific Time. After 4:30 call your poison control center.	
<b>NOTE TO PHYSICIAN</b> This product may cause cholinesterase inhibition. Atropine is antidotal, 2-PAM may be effective as an adjunct to atropine. Vomiting may cause aspiration pneumonia.	

EPA Reg. No. 47000-107  
EPA Est. No.

Net Weight:  
2 ½ Gallons

Manufactured By:  
**Chem-Tech, Ltd.**  
Des Moines, IA 50321

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

MAR 30 2005  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
47000-107

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist. Causes eye and skin irritation. Do not get in eyes, or skin or on clothing. Use only with adequate ventilation. After using this product indoors, ventilate thoroughly before occupying enclosed spaces. Do not allow contact with treated surface until sprays have dried.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions of category F on the EPA chemical resistance category selection chart.

**Applicators and other handlers must wear:**

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

For exposures in enclosed areas, a respirator with an organic vapor-removing (O/V) 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. For exposures outdoors, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

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.

Engineering controls statements: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], 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**

This pesticide is toxic to fish, aquatic invertebrates, and aquatic life stages of amphibians. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. For aquatic uses do not apply directly to water except as specified on this label. Do not contaminate water when disposing of equipment washwaters. This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product to allow it to drift to blooming crops or weeds if bees are visiting this treatment area.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use, or store near heat or open flame.

**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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton, protective eyewear and shoes plus socks.

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Par 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep children and pets out of the treated area until sprays have dried.

**RECOMMENDATIONS FOR USE**

Unless otherwise indicated, dosages are given in pints or Prozap Malathion 57% Emulsifiable Liquid Insecticide – B in sufficient water to cover one acre. Thorough, full coverage application should be made.

Begin application when insects first appear and repeat as necessary. For orchard pests such as Codling Moth, Apple Maggot, Oriental Fruit Moth or Plum Curculio, apply at petal fall and every 10 to 14 days thereafter until control is achieved.

Do not combine emulsifiable liquids with wettable powders in the same spray tank unless previous use of the materials being combined has proven them to be physically compatible.

**CHEMIGATION:**

Refer to supplemental labeling entitled "Application Through Irrigation Systems-Chemigation" for use directions for chemigation. Do not apply this product through any irrigation systems unless the supplemental labeling on chemigation is followed.

Do not use in undiluted form. Observe days interval between last application and harvest indicated by number in ( ) following the crop.

**CROPS**

**Alfalfa** (0) Aphids, Clover leaf weevil, Grasshoppers, Leafhoppers, Lygus bugs, Mites, Spider mites, Spittlebug, Spotted alfalfa aphid, Weevil larvae – Use 1 ½ - 2 pints per acre. Pea aphid – Use 1 pint per acre. Armyworms – Use 2 pints per acre.

**Apricots** (7) Aphids, Codling moth, Orange tortrix, Soft brown scale, Terrapin scale – Use 1 ½ - 2 pints per 100 gallons.

**Asparagus** (1) Thrips – Use 1 ½ - 2 pints per 100 gallons. Asparagus aphid, Asparagus beetle – Use 2 pints per 100 gallons.

**Avocados** (7) Greenhouse thrips, Latania scale, Omnivorous looper, Orange tortrix, Soft brown scale – Use 1 ½ pints per 100 gallons.

**Barley** (7) Cereal leaf beetle – Use 1 – 1 ½ pints per acre. Aphids, Grasshoppers, Greenbugs, Armyworms – Use 2 pints per acre.

**Beans** (1) Mexican bean beetle, Mites – Use 1 ½ pints per acre. Japanese beetle, Leafhoppers – Use 1 ½ - 2 pints per acre. Lygus bugs – Use 1 ½ - 2 pints (by ground equipment) and 1 ½ pints (in 10 gals. by air). Aphids, Cucumber beetle – Use 2 pints per acre.

**Beets** (7\*) – Use 1 – 2 pints per acre.  
\*If tops are to be used as feed.

**Blackberries** (1) Japanese beetle, Leafhoppers, Mites, Thrips – Use 1 ½ pints per acre. Aphids, Rose scale – Use 3 pints per acre.

**Blueberries** (8) Blueberry maggot – Use 1 pint per acre. Japanese beetle – Use 1 ½ pint per acre.

**Boysenberries** (1) Japanese beetle, Leafhoppers, Mites, Thrips \_ Use 1 ½ pints per acre. Aphids, Rose scale – Use 3 pints per acre.

**Broccoli** (3) Aphids\*, Cabbage looper\*, Imported Cabbage worm\* \_ Use 1 – 2 pints per acre. Caterpillars\* - Use 2 pints per acre. \*For best result, combine with other recommended insecticides.

**Brussels Sprouts** (7) Aphids – Use 1 -2 pints per acre. Cabbage looper\*, Caterpillars\*, Diamondback moth\*, Imported Cabbage worm\* - Use 2 pints per acre. \*For best result, combine with other recommended insecticides.

**Cabbage** (7) Aphids, Cabbage looper\* - Use 1 – 2 pints per acre. Caterpillars\*, Imported Cabbage worm\* - Use 2 pints per acre. \*For best result, combine with other recommended insecticides

**Cantaloupes** (1) Aphids, Spider mites – Use 1 ½ pints per acre. Cucumber beetles – Use 2 pints per acre.

**Carrots** (7) Aphids – Use 1 ½ -2 pints per acre. Leafhoppers – Use 2 ½ pints per acre.

**Cauliflower** (1) Caterpillars \_ Use 2 pints per acre

**Celery (Anise\* and fresh leaves and stalks only)** (7) Aphids, Spider Mites – Use 1 ½ pints per acre.  
\*Do not use on crops grown for seed and oil.

**Cherries** (3) Bud moths, Cherry fruit fly, Japanese beetle - Use 1 pint per 100 gallons. Black cherry aphid, Fruit tree leaf roller – Use 1 ½ pints per 100 gallons.

**Citrus** (7) (Grapefruit, Kumquats, Lemons, Limes, Oranges, Tangerines) Black scale, California red scale, Citrocicola scale, purple scale, soft scale, Yellow scale – Use 1 – ½ pints per 100 gallons. Thrips – Use 1 ½ pints per 200 gallons. Florida red & purple scales – Use 2 pints per 100 gallons.

**Clover** (do not apply to clover in bloom) (0) Aphids, Clover leaf weevil, Grasshopper, Leafhoppers, Mites – Use 1 ½ - 2 pints per acre.

**Collards** (7) Harlequin cabbage bug – Use 1 pint per acre. Aphids – Use 1 ½ - 2 pints per acre. Caterpillars – Use 2 pints per acre.

**Corn (Field, Sweet and Pop)** (5) Cereal leaf beetle – Use 1 – ½ pints per acre. Aphids, Corn rootworm adults, Grasshoppers, Sap beetle, Thrips – Use 1 ½ pints per acre. Armyworms – Use 1 ½ - 2 pints per acre.

**Cotton\*** (0) Fleahopper – Use 1 – 1 ½ pints per acre. Cotton leaf perforator – Use 1 – 2 pints per acre. Fall armyworms, Garden web worms, Grasshoppers – Use 1 ½ - 3 pints per acre. Aphids, Boll weevil, Cotton leafworms, Leafhoppers, Lygus bugs, Mites, Thrips, White flies – Use 1 -2 quarts per acre.  
\*Residue tolerances are for cotton seed,  
Do not graze or feed treated crop for forage.

**Cucumbers\*** (1) Aphids, Pickleworm, Spider mites – Use 1 ½ pints pr acre. Cucumber beetles – Use 3 pints per acre. \*Do not apply unless plants are dry.

**Dandelions** (7) Aphids – Use 1 ½ - 2 pints per acre

**Dewberries** (1) Japanese beetles, Leafhoppers, Mites, Thrips – Use 1 ½ pints per acre. Aphids, Rose scale – Use 3 pints per acre.

**Eggplant** (3) Aphids, Spider mites – Use 1 pint per acre. Lace bug – Use 3 pints per acre.

**Endive (Escarole)** (7) Aphids, Mites – Use 1 ½ - 2 pints per acre.

**Figs** (3) Dried fruit beetles, Vinegar flies – Use 2 quarts per 100 gallons plus 1-2 gallons of unsulfurized molasses.

**Garlic** (3) Aphids, Thrips – Use 1 ½ - 2 pints per acre.

**Grain Sorghum** (7) Aphids (Greenbugs) – Use 1 ½ pints per acre.

**Grapes** (3) European fruit lecanium\*, Leafhoppers\*, Mealybugs, Spider mites, Terrapin scale – Use 1 ½ pints per acre. Overwintering grape phylloxera\*\* - Use 2 – 3 pints\*\* per acre.

\*May injure Ribier, Italia, Cardinal and Almeria varieties if applied after clusters appear.

\*\*Submerge entire root system for 5 minutes. Keep the solution agitated at all times.

**Grass and Grass Hay** (0) Aphids, Grasshoppers, Leafhoppers – Use 1 ½ - 2 pints in 1 gallon diesel fuel oil.  
Armyworms – Use 2 pints OR 1 ½ pints in 1 gallon diesel fuel oil per acre.

**Grass (barngrass, canary grass, fescue, orchard grass, red top, timothy, yellow foxtail)** (0) Cereal leaf beetle – Use 1 – 1 ½ pints per acre.

**Honeydews** (1) Aphids, Mites – Use 1 ½ pints. Cucumber beetles – Use 2 pints per acre.

**Hops** (10) Aphids, Mites – Use 1 pint per acre.

**Horseradish** (7) Aphids – Use 1 ½ - 2 pints per acre.

**Kale** (7) Aphids, Cabbage looper, Imported cabbage worm – Use 1 – 2 pints per acre.

**Kohlrabi** (7) Aphids – Use 1 – 2 pints per acre.

**Leeks** (7) Aphids – Use 1 – 2 pints per acre. Onion maggot flies (3) – Use 2 ½ pints per acre. Thrips – Use 3 pints per acre.

**Lentils** (3) Aphids (cowpea aphids and pea aphids) – Use 1 ½ pints per acre.

**Lespedeza** (0) Grasshoppers – Use 1 ½ - 2 pints per acre.

**Lettuce Leaf** (14) Head (7) Aphids, Leafhoppers – Use 2 pints per acre. Cabbage looper – Use 3 pints per acre.

**Loganberries** (1) Japanese beetle, Leafhoppers, Mites, Thrips – Use 1 ½ pints per acre. Aphids, Rose scale – Use 3 pints per acre.

**Lupines** (0) Grasshoppers – Use 1 ½ - 2 pints per acre.

**Macadamia Nuts** (0) Green stink bug – Use 1 ½ pints per acre.

**Melons** (1) Aphids, Spider mites – Use 1 ½ pints per 100 gallons. Cucumber beetle – Use 2 pints per 100 gallons.

**Mint** (7) Adult flea beetles, Aphids, caterpillars, Leafhoppers, Spider mites – Use 1 ½ pints per acre.

**Mushrooms** (1) Mites, Phorid & sclarid flies – Use 2 ½ pints per 130 gallons of water OR 2 lbs. per 3 gallons of water per 1000 sq. ft. of bed per acre.

**Muskmelons** (1) Aphids, Spider mites – Use 1 ½ pints per acre. Cucumber beetles – Use 2 pints per acre.

**Mustard Greens** (7) Aphids, Cabbage looper, Imported cabbage worm – Use 1 – 2 pints pr acre. Flea beetles – Use 1 ½ - 2 pints per acre.

**Nectarines** (7) Mites – Use 1 – 2 pints per 100 gallons. Plum curculio – Use 2 pints per 100 gallons.

**Oats** (7) Cereal leaf beetle – Use 1 – 1 ½ pints per acre. English grain aphid, Grasshoppers, Greenbugs – Use 1 ½ pints per acre. Armyworms – Use 2 pints per acre.

**Okra** (1) Aphids – Use 1 ½ pints per acre. Japanese beetle – Use 2 pints per acre.

**Onion** (1) Thirps – Use 1 ½ pints per acre. Onion maggot – Use 2 ½ pints per acre.

**Papayas** (0) Aphids, Mealybugs – Use 1 ½ - 2 pints per acre.

**Parsley** (21) Aphids – Use 1 ½ - 2 pints per acre.

**Parsnips** (7) Aphids - Use 1 ½ - 2 pints per acre.

**Pasture and Range Grass** (0) Aphids, Grasshoppers, Leafhoppers – Use 1 ½ -2 pints per acre OR 1 ½ pints in 1 gallon diesel fuel oil per acre. Armyworms – Use 2 pints per acre.

**Peaches** (7) Aphids (Green Peach, Black Cherry, Black Peach, Rusty Plum), Japanese beetle – Use 1 pint per acre. Cottony peach scale, Oriental fruit moth, Plum curculio, Terrapin scale – Use 2 pints per acre.

**Peas** (3) Aphids – Use 1 ½ pints per acre. Pea weevil – Use 1 ½ - 2 pints per acre.  
Do not graze or feed treated crop forage.

**Pecans** (0) Aphids, Mites – Use 1 – 2 pints per 100 gallons.

- Peppers** (3) Aphids – Use 1 pint per acre. Maggots – Use 2 ½ pints per acre.
- Pineapple** (7) Mealybug – Use 1 gallon per acre.
- Potatoes** (0) Aphids, Leafhoppers, Mealybugs – Use 1 pint per acre. False chinch bug – Use 1 ½ pint per acre.
- Pumpkins** (3) Aphids, Mites – Use 1 ½ pints per acre. Squash vine borers – Use 3 pints per acre.
- Radishes** (7) Aphids – Use 1 ½ - 2 pints per acre.
- Raspberries** (1) Japanese beetle, Leafhoppers, Mites, Thrips – Use 1 ½ pints per 100 gallons. Sap beetle – Use 1 ½ - 2 pints per 100 gallons. Aphids, Rose scale – Use 3 pints per 100 gallons.
- Rice** (grain form) (7) Rice stink bug – Use 1 – 1 ½ pints per acre. Rice leaf miner – Use 2 ½ pints per acre. Tadpole shrimp\*(Cal.) – Use 3 pints per acre.  
 \*Restrict water spill from the treated fields for 48 hours following application. Broadcast use only over intermittently flooded areas. Applications may not be made around bodies of water where shellfish or fish are grown and/or harvested commercially.
- Rutabagas** (3) Aphids – Use 1 ½ pints per acre.
- Rye** (7) English grain aphid, Grasshoppers, Greenbugs – Use 1 ½ pints per acre. Armyworms – Use 2 pints per acre.
- Salsify** (7) Aphids – Use 1 ½ - 2 pints per acre.
- Shallots** (3) Aphids, Thrips – Use 1 ½ - 2 pints per acre.
- Spinach** (7) Aphids – Use 2 pints per acre.
- Squash** (1) Aphids, Spider mites – Use 1 ½ pints per acre. Pickleworm – Use 2 pints per acre. Cucumber beetle, Squash vine borers – Use 3 pints per acre.
- Strawberries** (3) Aphids, Spider mites, Strawberry root weevil – Use 1 ½ pints per acre. Potato leafhopper, Strawberry leafroller, White flies – Use 1 ½ - 2 ½ pints pre acre. Field crickets, Lygus bugs, Spittlebug, Thrips – Use 1 ½ - 3 pints per acre.
- Sweet Potatoes** (3) Leafhoppers – Use 1 ½ - 2 pints per acre. Morning glory leafminers – Use 2 ½ - 3 pints per acre.
- Swiss Chard** (7) Aphids – Use 1 ½ - 2 pints per acre.
- Tomatoes** (1) Aphids – Use 1 pint per acre. Spider mites – Use 1 ½ pints per acre. Drosophila – Use 2 ½ pints per acre. Armyworms (3) (Cal.), Fruit worms (Cal.) – Use 2 ¾ pints per acre.
- Turnips** (3) Aphids, Cabbage looper, Imported cabbage worm – Use 1 – 2 pints per acre.
- Vetch** (0) Omniverous leaf tier, Pea aphid, Vetch bruchid – Use 1 ½ - 2 pints per acre.
- Watercress** (7) Aphids – Use 1 ½ - 2 pints per acre.
- Watermelons** (1) Aphids, Spider mites – Use 1 ½ pints per acre. Cucumber beetle – Use 2 pints per acre.
- Wheat** (7) Cereal leaf beetle, English grain aphid – Use 1 – 1 ½ pints per acre. Grasshoppers, Greenbugs – Use 1 ½ pints per acre. Armyworms – Use 2 pints per acre.

**NON FOOD USES IN AND AROUND GREENHOUSES AND GARDENS**

INSECTS CONTROLLED	DOSAGE	DIRECTIONS FOR USE
Millipedes, Sowbugs, Springtails	1 teaspoon per gallon	Apply to 150 square feet of soil surface or where insects congregate. Repeat at 7 to 10 day intervals as needed.



**FLY AND MOSQUITO CONTROL**

Fly control: For use outside buildings which house domestic animals, around yards and outside homes and outside meat and food processing plants.

INSECTS CONTROLLED	DOSAGE	DIRECTIONS FOR USE
Adult Flies	Straight sprays: 5 Tbsp. + 1 gal. water OR 1 cup + 2 ½ gals. water OR 1 quart + 12 gals. water	Apply as a spray at the rate of 1 gallon per 1,000 sq. ft. on painted surfaces and 2 gallons per 1,000 sq. ft. on unpainted surfaces when flies alight or congregate, such as walls, windows, fences, around garbage cans, etc.
Mosquitoes	1 part to 28 parts water, fuel oil or diesel oil	Spray building foundations, shrubs, low trees and lawn areas.
Mosquito Larvae	13 fluid ounces per acre	For use in standing water (intermittently flooded areas, stagnant water, temporary rain pools). Mix in sufficient water or oil when applied by air or ground equipment. Broadcast use only over intermittently flooded areas. Applications may not be made around bodies of water where shellfish or fish are grown and/or harvested commercially.

**Notes:**

Avoid applying oil based formulations to valuable ornamental plants as injury may occur.

Malathion 57% may be toxic to certain species of fish, particularly in shallow water.

**Malathion 57% will permanently damage automobile paint, cars should not be sprayed. If accidental exposure does occur, the car should be washed immediately.**

**LAWNS**

INSECTS CONTROLLED	DOSAGE	DIRECTIONS FOR USE
Ant mounds	1 ½ - 2 pints per 100 gallons	Spray ant hills thoroughly so they are well soaked. For other small ants in flower beds, lawns, around trees, spray lightly in the infested areas. Repeat in 10 to 15 days if ant return.
Ground pearls	3 - 4 quarts per 100 gallons OR ¾ - 1 qt. per 25 gallons	Make full coverage to soil surfaces when ground pearl nymphs are in the pink "crawler" or active stage and immediately wash into soil with additional water.

**NON-AGRICULTURAL LANDS**

INSECTS CONTROLLED	DOSAGE	DIRECTIONS FOR USE
Grasshoppers	1 ½ - 3 pints per acre OR 1 ½ - 3 in 1 gallon of diesel fuel oil	

**ORNAMENTALS : General Uses (Outdoor)**

Injury may occur on ferns, hickory, viburnum, lantana, crassula and canaerti juniper following the use of Malathion 57%. Slight injury has also been reported on Boston, pteris and maidenhair ferns, petunias, small-leaf spirea, white pine and maples. Under extreme heat, drought and disease conditions, the emulsifiable concentrate may cause slight damage to elms.

**FLOWERS, SHADE TREES, SHRUBS**

<b>INSECTS CONTROLLED</b>	<b>DOSAGE</b>	<b>DIRECTIONS FOR USE</b>
Aphids, Spider Mites	1 ½ pints per 100 gallons OR 2 tsp. per gallon.	
Bagworms	2 pints per 100 gallons OR 2 tsp. per gallon	
Birch leafminer, Boxwood leafminer	2 pints per 100 gallons OR 2 tsp. per gallon	
European pine shoot moth, Four-lined leaf bug, Japanese beetle adult, Potato leafhopper, Rose leafhopper, Tarnished plant bug, Thrips	1 ½ pints per 100 gallons OR 2 tsp. per gallon	
Lace bug	1 pint per 100 gallons OR 2 tsp. per gallon	
Mealybugs, Whiteflies	1 ½ pints per 100 gallons OR 2 tsp. per gallon	
Oak kermes	2 pints per 100 gallons OR 2 tsp. per gallon	Apply when scale crawlers have settled on foliage.
Tent Caterpillar	2 pints per 100 gallons OR 2 tsp. per gallon	
Oyster shell scale	1 pint per 100 gallons OR 2 tsp. per gallon	Apply when scale crawlers have settled on foliage.
Euonymus scurfy	1 ½ pints per 100 gallons OR 2 tsp. per gallon	
Azalea, Magnolia, Pine leaf	2 pints per 100 gallons OR 2 tsp. per gallon	
Flecher scale	2 pints per 100 gallons OR 2 tsp. per gallon	Apply when scale crawlers have settled on foliage.
Florida red, Juniper scale	2 pints per 100 gallons OR 2 tsp. per gallon	Apply when scale crawlers have settled on foliage.
Black scale crawlers	2 ¼ pints per 100 gallons OR 2 tsp. per gallon	
Monterey pine, soft scales	2 ½ pints per 100 gallons OR 2 tsp. per gallon	
Pine needle scale	4 pints per 100 gallons OR 4 tsp. per gallon	
Wax scale	1 ½ pints per 100 gallons OR 2 tsp. per gallon	Apply in spring when crawlers are active. Repeat 1 or 2 full-coverage applications at 10-day intervals.

**INDOOR STORED PRODUCTS FACILITY SPRAY**

**GRAINS (Barley, Corn, Oats, Rice, Rye, Wheat)**

<b>INSECTS CONTROLLED</b>	<b>DOSAGE</b>	<b>DIRECTIONS FOR USE</b>
Cereal leaf beetle, Confused flour beetle, Flat grain beetle, Granary weevil, Indian meal moth, Lesser grain borer, Maize weevil, Red flour beetle, Rice weevil, Rusty grain beetle, Sawtoothed grain beetle	1 gallon per 25 gallons of water OR 1 quart per 6 ¼ gallons of water	<b>RESIDUAL SPRAY BEFORE STORING</b>  Grains: For a residual wall, floor and machinery spray in grain elevators, before loading grain make a thorough application. Before applying spray clean elevators thoroughly. Remove and burn all sweepings and debris.

**On and Around CULL FRUIT & VEGETABLE DUMPS**

INSECTS CONTROLLED	DOSAGE	DIRECTIONS FOR USE
Drosophila flies	1 ½ gallons per 100 gallons of water OR ¾ quart per 12 ½ gallons of water	Apply as a drench using 8 – 10 gallons of spray per 100 sq. ft. For best results, dumps should not be over 18 inches deep. <b>DO NOT FEED TREATED FRUIT AND VEGETABLES.</b>

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in original container in a cool, dry, locked place out of reach of children.

**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 nearest State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional office for guidance.

**CONTAINER DISPOSAL:** [Metal] 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. [Plastic] 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.

**NOTICE**

It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Chem-Tech, Ltd, the manufacturer or seller. To the fullest extent permitted by law Chem-Tech, Ltd, the manufacturer or seller shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Except as expressly provided herein, Chem-Tech, Ltd, the manufacturer or seller makes no warranties, guarantees, or representations of any kind, either express or implied, or by usage of trade, statutory or otherwise with regard to the product sold, including, but not limited to, merchantability, fitness for a particular purpose, use or eligibility of the product for any particular trade usage. Buyer's or user's exclusive remedy, and Chem-Tech, Ltd's, the manufacturer's or seller's total liability, shall be for damages not exceeding the cost of the product.

12/01/04

**APPLICATION THROUGH IRRIGATION SYSTEMS-  
CHEMIGATION**

Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; flood (basin); furrow; border; or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

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.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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.

Mix in clean supply tank the recommended amount of this product for acreage to be covered, and needed quantity of water.

This product should not be tank-mixed with other pesticides, surfactants or fertilizers unless prior use has shown the combination noninjurious under your conditions of use.

Follow precautionary statements and directions for all tank-mixed products.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and stage of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or illegal pesticide residues.

Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application. Follow recommended label rates, application timing, and other directions and precautions for crop being treated.

Continuous mild agitation of pesticide mixture may be needed to assure a uniform application, particularly if the supply tank requires a number of hours to empty.

**CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Note: Loveland Products Inc. does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have

diligently considered all other application and water supply options before electing to make such a connection.

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. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be 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.

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 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 no water pump, when the water pressure decreased 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.

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

#### SPRINKLER CHEMIGATION (FOLIAR SPRAY USES)

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 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.

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

#### FLOOD (BASIN), FURROW AND BORDER CHEMIGATION (SOIL DRENCH USES)

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

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

- a. 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.
- b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- c. 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.
- d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- e. 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.
- f. 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.

#### DRIP (TRICKLE) CHEMIGATION (SOIL DRENCH USES)

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 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.