AGRICULTURAL

10 litres 200 litres

# SYS-TEM(R) 480 EC EMULSIFIABLE CONCENTRATE INSECTICIDE

A Systemic Insecticide for the Control of: Insects and mites on listed ornamentals and trees Insects on listed vegetables and fruit

A Contact Insecticide for the Control of: Houseflies

DANGER POISON

READ THE LABEL BEFORE USING KEEP OUT OF REACH OF CHILDREN

GUARANTEE: dimethoate 480 g per litre

REGISTRATION NO. 14338 PEST CONTROL PRODUCTS ACT

ZENECA Agro a business of ZENECA Corp. 250-3115 12<sup>th</sup> Street N.E. Calgary, AB T2E 7J2

#### PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Vapours are harmful. Harmful if swallowed. Concentrated material causes eye irritation. Avoid breathing vapour or spray mist. Wash thoroughly after using and before eating, drinking or smoking. Do not use in the home. Use only with adequate ventilation.

Avoid contamination of feed and foodstuffs. Do not use in milk processing rooms. Do not contaminate feed, foodstuffs, feed troughs, litter or drinking fountains. Do not apply directly to animals.

## FIRST AID

If a known exposure occurs or is suspected, immediately initiate

the recommended procedures below. If further treatment is required, contact a Poison Control Centre, a physician, or the nearest hospital.

Remove patient from exposure area and remove contaminated clothing.

If Swallowed: and patient is conscious, induce vomiting by giving water and touching back of throat with finger or blunt object. If breathing is weak or irregular, give artificial respiration and get medical attention.

For Eye Contact: Immediately flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart during flushing to ensure rinsing of the entire surface of the eye and lids with water. Get medical attention.

For Skin Contact: Flush all affected areas with plenty of soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention if skin irritation occurs. Wash clothing before reuse.

If Inhaled: Remove to fresh air. Seek medical attention if respiratory irritation occurs or if breathing becomes difficult.

### TOXICOLOGICAL INFORMATION

Symptoms of poisoning include nausea, vomiting, pinpoint pupils, excessive salivation, muscle twitching, convulsions and coma. This product, upon repeated and prolonged use, may cause cholinesterase inhibition. Antidote - Give 2 to 4 mg of atropine sulphate intra-muscularly or intravenously immediately and every hour as required until pupils dilate. Pralidoxime chloride (2-PAM: PROTOPAM Chloride) may be effective as an adjunct to atropine. Use according to label directions.

# EMERGENCY TELEPHONE NUMBER

All hours, 1-800-327-8633 (FASTMED) ONLY for health and environmental information.

# ENVIRONMENTAL HAZARDS

Highly toxic to birds, bees and other wildlife. Do not treat when bees are foraging.

#### STORAGE

Store in a cool dry well ventilated area away from foodstuffs and out of reach of children and animals. Do not use, pour, spill or

store near heat or open flame. Keep out of sun. Ship and store between 4'C - 30'C.

#### SPILL CLEANUP

Wear Appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact ZENECA Agro (See EMERGENCY NUMBER) for further information.

For spills and leaks; contain the liquid with dikes of inert material (soil, clay, kitty litter etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

On hard surfaces - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand for 10 minutes then absorb onto an inert material and shovel waste into a waste container.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. For more information on the disposal of waste and the clean up of spills, contact the provincial regulatory agency or the manufacturer.

#### DISPOSAL

Rinse the emptied container thoroughly and add the rinsings to the spray mixture in the tank. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the provincial regulatory agency or the manufacturer.

## NOTICE TO USER

This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

## DIRECTIONS FOR USE

NOTICE: A systemic insecticide is absorbed into the system of the plant upon application and as with all systemic materials, may cause reactions in specific plants which are not predictable nor common to all members of the species. Soil drenches are safer than paint-on-treatment, and paint-on-treatments are safer than foliar sprays. Do not apply foliar sprays during the heat of day or when temperatures are excessively high.

# FRUIT, VEGETABLE AND ORNAMENTAL USES

GENERAL: For all uses, unless otherwise stated, use sufficient water for good cover spray. Unless otherwise stated, repeat applications when necessary. NUMBER OF DAYS FROM LAST SPRAY TO HARVEST: You may spray up to 3 days before harvest on peas, peppers; 4 days on broccoli, cabbage, cauliflower; 7 days on beans, kale, field lettuce, potatoes, spinach, strawberry, Swiss chard, field tomatoes, turnip greens; 12 days on beet greens; 14 days on apples, pears; 15 days on cherries; 21 days on Brussel's sprouts, barley, oats, rye, wheat. This product is toxic to bees.

APPLES AND PEARS: Aphids, Apple Maggot, Mites, Pear Psylla: Use 3.4 to 4.25 L/ha. Tarnished Plant Bug: Use 2 L/ha on apples at pink stage and again at first cover on pears at pre-bloom. Do not apply during bloom to apples and pears. For apple maggot, spray when adult flies first appear and repeat in 10-14 days.

CHERRIES (SWEET): Cherry Fruit Fly: Apply 2.25 L/ha no later than 6 days after the first fly is trapped. Apply only once per season. Do not apply within 15 days of harvest.

CHERRIES (SOUR): Cherry Fruit Fly: Apply 2.25 L/ha no later than 6 days after the first fly is trapped. Repeat after 14 days if necessary. Do not apply more than two sprays per season. Do not apply within 15 days of harvest.

NON-BEARING PEACHES: Aphids, Mites: Use 3.4 to 5 L/ha when growth starts and repeat at monthly intervals. Tarnished Plant Bug: Use 1.65 L/ha at pink stage and again at shuck fall.

STRAWBERRIES: Aphids, Mites: Use 2.25 L per 2000 L of water per hectare when growth commences and repeat at monthly intervals. Tarnished Plant Bug: Mix 2.75 L per 2000 L water per hectare when first blooms appear and again 10 to 12 days later. Leave 7 days between last spray and harvest.

BLUEBERRIES (Low bush): Blueberry Maggot: Mix 600 to 825 mL/1,000 L water per hectare. Make 1 or 2 applications between July 15 and July 30. Do not apply within 15 days of harvest.

ASPARAGUS (Ground Application): Asparagus Aphid: Apply by boom or field sprayer at a rate of 2.3 L of SYS-TEM 480 EC in 675 L of

water per hectare at three to four week intervals as needed until defoliation in October. For immature asparagus, begin application mid-May. For mature asparagus, begin application July 1, after crop has been harvested.

BEANS: Aphids, Leafminers, Bean Leaf Beetles, Mites, Leafhoppers, Lygus Bug, Tarnished Plant Bug: Use 550 to 1000 mL/ha. Do not graze or feed livestock on treated foliage.

CABBAGE, BROCCOLI, BRUSSEL'S SPROUTS, CAULIFLOWER: Aphids: Use 550 to 1000 mL/ha. Thrips: Use 550 to 1250 mL/ha. Apply at 10 day intervals starting at head formation.

BEET GREENS, KALE, LETTUCE, SPINACH, SWISS CHARD, TURNIP GREENS: Aphids, Leafhoppers: Use 700 mL/ha.

PEAS: Aphids: Use 275 to 425 mL/ha. Do not feed or graze pea hay within 21 days after last application.

PEPPERS: Aphids, Maggots: Use 700 to 1500 mL/ha.

TOMATOES (field), POTATOES: Aphids, Leafhoppers: Use 550 to 1500 mL/ha. See local agricultural authorities for timing.

MUSHROOM HOUSES: Sciarid Flies, Phorid Flies: Use 120 mL in 10 L water - Spray all inside walls and paint the bed boards on the outside with the mixture. Apply after filling the beds with manure and pasteurizing by heat has been done, but before spawning and casing. Do not spray on the manure.

ALFALFA, FORAGE CROPS, PASTURES, WASTE AREAS: Pea Aphid: Use 425 mL/ha; grasshoppers (young): Use 450 mL/ha. Plant Bugs, Lygus Bugs, Potato Leafhopper, Reduction of alfalfa weevil larvae: Use 425 mL/ha; Grasshoppers (adult or winged): Use 850 mL/ha. Sweet Clover Weevil: Use 850 to 1000 mL/ha.

ALFALFA - Blotch Leafminer: Use 550 mL/ha. Use sufficient water for good coverage, using ground (at least 200 L/ha) or aerial application equipment. Repeat only when necessary. Remove cattle before spraying. Do not apply during bloom. Do not graze or harvest for forage within the following times after application of the rates given: 425 to 550 mL - 48 hours, 850 mL - 7 days, 850 to 1000 mL - 28 days.

BARLEY, OATS, RYE, WHEAT: Aphids, Young Grasshoppers: Use 425 mL/ha; Say Stink bug: Use 550 ml/ha; Adult Grasshoppers: Use 850 mL/ha. Do not graze or harvest for forage within 7 days after application.

ROSES (outdoors): Aphids, Thrips, Rose Slug, Leafhoppers,

Spidermites. GLADIOLUS - Aphids and Thrips - CARNATION: Aphids, Thrips, Spidermites: Use 1.25 L per 1000 L water. For Carnations, a soil drench may be used at the rate of 125 mL per 100 m2 of bed or bench in sufficient water for even distribution. Water thoroughly after application.

DAY LILIES, IRIS: Aphids, Thrips, Iris Borer: Use 2.5 L per 1000 L water. For Iris Borer control, spray when new leaves are 12 to 15 cm tall.

ARBORVITAE (CEDAR) AND JUNIPER: Aphids, Bagworms, Mites and Arborvitae Leafminers (for leafminers apply in early May or late August), Juniper Scales and Tip Midges: Use 2.5 L in 1000 L of water. TAXUS: Mites, Mealybugs and Fletcher's Scale (for Fletcher's scale, spray at the end of June and again 10 days later when crawlers are moving): Use 2.5 L per 1000 L of water.

PINE: Aphids, Bagworms and European Pine Shoot Moth (for Shoot Moth spray early in the spring and again in mid-June thoroughly wetting branch tips) Use 2.5 L in 1000 L of water; and Red and Black-Headed Pine Sawfly Larvae: Use 1.25 L per 1000 L of water.

HOLLY (English and American): Mites, Soft Scale, Leafminer: Use 1.25 L per 1000 L water when leaves are expanded (about mid-May), repeat the last week in June.

BIRCH: Leafminer: Use 625 mL per 1000 L water and apply in mid-May when leafminer flies appear and in last week of June for control of larvae in the infested leaves.

BOXWOOD: Leafminer, Mealybug, Spider Mites: Use 1.25 L per 1000 L water when insects first appear in spring and repeat in early summer.

SPRUCE: Seed and cone Insects: Mix 1 to  $2\ L/100\ L$  water and apply once when strobili are closed and turning. Use a hydraulic ground sprayer and apply to ensure adequate coverage. Contact local forester for more information.

HOUSEFLY CONTROL Residual Wall Sprays: Houseflies, including chlorinated hydrocarbon resistant strains, may be controlled in dairy barns, hog pens, calf barns, poultry houses and other farm buildings. Mix 200-250 mL in 10 L of water. Thoroughly wet all fly resting areas to point of run-off. (5-10 L of spray will cover 100 m2 of surface).

NOTE: Do not use in milk processing rooms. Do not mix with whitewash or apply within 2 weeks of whitewashing. Remove livestock and poultry from buildings when applying residual wall spray. (Flies have been controlled up to 6 weeks). Repeat

applications should be made when necessary. SPOT SPRAYS: For localized housefly control, apply spray containing 300 mL in 10 L of water. Apply with a knapsack sprayer to doorways, counters and other areas frequented by flies.

GENERAL OUTDOOR USE: To control houseflies around homes, garbage cans, animal quarters, food processing plants, warehouses, loading docks and refuse areas, spray exposed surfaces such as walls, fences, refuse containers and garbage with a mixture of 200 mL in 10 L of water. Repeat applications as necessary.

#### NOTICE TO BUYER

Seller's guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

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