

16-DEC-1998

((LABEL))

metasystox-r

**Spray Concentrate
Systemic Insecticide**

COMMERCIAL

Net Contents 10 Litres

Contains Oxydemeton-methyl
For systemic crop protection

GUARANTEE: oxydemeton-methyl..... 240 g/L

Contains aromatic petroleum distillate

REGISTRATION NO. 7882

PEST CONTROL PRODUCTS ACT

KEEP AWAY FROM HEAT AND OPEN FLAME.

DANGER

POISON

FLAMMABLE

KEEP OUT OF REACH OF CHILDREN

Call a doctor or poison control centre in case of accident

READ THE LABEL AND LEAFLET BEFORE USING

**Bayer Inc. Crop Protection
77 Belfield Road
Etobicoke, Ontario, Canada M9W 1G6**

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.

PRECAUTIONS

Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not treat food crops grown in the greenhouse. This pesticide is toxic to fish and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of wastes. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

DANGER

Causes eye irritation. May be fatal if swallowed, inhaled, or absorbed through the skin. Prolonged or frequently repeated skin contact causes allergic reactions in some individuals. Wear protective clothing specified on this label. Do not breathe spray mist. Wash thoroughly with soap and warm water after handling. Wash clothing with soap and hot water before reuse.

Avoid contamination of feed or food. KEEP OUT OF REACH OF CHILDREN.

FIRST AID: In case of poisoning call a physician or contact a poison control centre immediately. Have patient lie down and keep quiet. **If swallowed**, vomiting should be induced. Administer water freely and induce vomiting by giving one dose (15 mL) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. The patient should be lying down with the head below the foot level and facing down or to one side. Professional medical assistance should be secured immediately. DO NOT INDUCE VOMITING TO AN UNCONSCIOUS PERSON OR TO PERSONS IN A CONVULSIVE STATE. **If on skin**, remove contaminated clothing and wash skin immediately with soap and warm water. **If eyes are contaminated**, wash immediately with flowing water for at least 15 minutes.

TOXICOLOGICAL INFORMATION: Oxydemeton-methyl inhibits cholinesterase resulting in stimulation of the central nervous system. This results in a sense of "tightness" in the chest, sweating, contracted pupils, stomach pains, vomiting and diarrhea. The antidote is atropine sulfate administered in large therapeutic doses repeated as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically. This product contains aromatic petroleum distillate.

DISPOSAL

1. Do not reuse the container.
2. Rinse the empty container thoroughly and add all rinsings to the spray mixture in the tank.
3. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
4. Make the empty container unsuitable for further use and dispose of the empty container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the Provincial Regulatory Agency or the Manufacturer.

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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DIRECTIONS FOR USE

METASYSTOX-R systemic insecticide is absorbed by the leaves and enters into the plant sap. METASYSTOX-R Spray Concentrate is toxic to bees exposed to direct treatment. The best time to apply a spray on crops in bloom, such as alfalfa, is early morning or evening. By observing this practice, you will avoid spraying when beneficial insects, including honey bees, are active in the field.

MIXING: METASYSTOX-R Spray Concentrate forms an emulsion when diluted with water and is suitable for use in all power-operated ground sprayers and aircraft sprayers. To mix with water, pour the required amount of METASYSTOX-R Spray Concentrate into full amount of water and then agitate.

DOSAGE: Use specified dosage of METASYSTOX-R Spray Concentrate in the amount of water necessary to give complete coverage of foliage. The type of equipment used will determine the concentration required.

SPRAYING: Work to windward. Protect sprayer operators from drift or mist. (Refer to "Re-Entry Statements" and "Protective Clothing, Equipment and Work Safety Statements" on this label.) When low volumes of spray are applied, complete coverage and thorough application are essential for most effective results. Schedule applications in

accordance with local conditions. Consult your local agricultural authorities for specific use information.

RECOMMENDED APPLICATIONS

CROP	INSECT	Dosage METASYSTOX-R SC	REMARKS
FIELD CROPS Corn	Aphids Mites	1.75 to 2.25 L/ha	Apply specified dosage per hectare in sufficient water for complete coverage. Do not apply more than once per season nor within 14 days of harvest of corn or 30 days of harvest of corn fodder.
Sugar Beets	Aphids Leafhoppers Mites	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Do not apply more than twice per season. Do not harvest beets or use beet tops for food or forage within 30 days of last application.
Flue-cured Tobacco	Aphids (Green Patch)	1.25 L/ha	GROUND AND AERIAL APPLICATION Apply specified dosage per hectare in sufficient water for complete coverage with ground or aircraft equipment. Do not apply more than twice per season nor within 14 days of harvest. METASYSTOX-R SC is compatible with recommended tobacco sucker control agents.

<p>SEED FIELD CROPS Alfalfa Barley Clover Corn Grasses Oats Safflower Wheat</p>	<p>Aphids Mites</p>	<p>1.75 to 2.25 L/ha</p>	<p>Apply specified dosage per hectare. Repeat as necessary. Do not pasture or use treated crop for feed, food, or forage.</p>
<p>FRUITS Caneberries</p>	<p>Aphids Mites</p>	<p>1.25 to 1.75L/1000 L</p>	<p>Apply specified dosage in 1000 of water as a full coverage spray. * Do not apply more than once per season nor within 30 days of harvest.</p>
<p>Strawberries</p>	<p>Strawberry Aphid</p>	<p>2.33 L/ha</p>	<p>Apply specified dosage per hectare in 1000 L of water using a row crop sprayer with drop pendant nozzles. A maximum of three applications (prebloom, after renovation and during September) may be made per season. Do not apply within 40 days of harvest. Do not apply to everbearing or day neutral strawberries.</p>
<p>NON-BEARING FRUITS Apples Apricots Cherries Crab Apples Grapes Peaches Pears Plums Prune plums Quinces</p>	<p>Aphids Mites</p>	<p>1.25 to 1.75L/1000 L</p>	<p>Apply specified dosage in 1000 L of water as a full coverage spray* on non-bearing fruits. Repeat as necessary. Do not apply to trees that will bear fruit within the next 12 months.</p>

VEGETABLES Asparagus (fern growth only; after cutting)	Asparagus aphid	2.35 L/ha	Apply specified dosage to asparagus fern growth after harvest. Do not apply more than 3 times per season nor within 6 months of harvest.
Broccoli	Aphids	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Do not apply more than once per season nor within 21 days of harvest.
Brussels Sprouts Cabbage Cauliflower	Aphids	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Do not apply more than 3 times per season nor within 24 days of harvest.
Cucumbers Turnips	Aphids Mites	1.75 to 2.25 L/ha	Apply specified dosage per hectare in sufficient water for complete coverage. Do not apply more than twice per season nor within 14 days of harvest. Do not use turnip tops for food or forage.
Potatoes	Aphids Leafhoppers	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Repeat as necessary. Do not apply within 7 days of harvest.
Pumpkins Squash (Summer) Squash (Winter)	Aphids	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Do not apply more than once per season nor within 14 days of harvest.
MELONS Muskmelons (Cantaloupe)	Aphids Mites	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Do not apply more than 3 times per season nor within 14 days of harvest.

Watermelons	Aphids Mites	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Do not apply more than twice per season nor within 7 days of harvest.
SEED VEGETABLE CROPS Cabbage Celery Cucumbers Lettuce Peppers Radishes Rutabagas Spinach Tomatoes Turnips	Aphids Mites	1.75 to 2.25 L/ha	Apply specified dosage per hectare. Repeat as necessary. Do not pasture or use treated crop for feed, food, or forage.
FOREST SEED ORCHARDS Douglas Fir	Cone and seed insects such as gall midge, chalcid	1 to 2 L/100L	Using a hydraulic sprayer, spray to runoff on Douglas Fir crown once per year as needed. Application should be timed on conelets after they have closed but before they become pendant.
FOREST SEED ORCHARDS AND SEED PRODUCTION STANDS Douglas Fir Spruce Western Red Cedar	Cone and seed insects such as gall midge, seed chalcid, cone maggot, cone midge	1 to 2 L/100 L	Using a hydraulic sprayer, apply once per year as needed. Spray the cone bearing surfaces of the trees to the point of runoff. Application should be made after the conelets have closed but before they become pendant. WESTERN RED CEDAR: Apply at the first sign of insect egg hatch in the cones. Consult Federal and/or Provincial Forestry Pest Specialists for more information.

<p>TRUNK INJECTION TECHNIQUE</p> <p>Douglas Fir and Spruce</p>	<p>Cone and seed insects such as gall midge, seed chalcid, cone maggot, cone midge</p>	<p>3 mL/10-15cm of tree circumference</p>	<p>Drill evenly spaced holes, with a bit approximately 10 mm in diameter, downward into the tree every 10-15 cm around the tree below the first lateral branches or at chest height. These holes must reach the sapwood. With a syringe deposit 3 mL into each hole. Application should be made after the conelets have closed but before they become pendant.</p> <p>Consult Federal and/or Provincial Forestry Pest Specialists for more information.</p>
<p>ORNAMENTALS FOLIAR SPRAY</p> <p>Flowers Shrubs Trees</p>	<p>Aphids Birch leaf miner Holly leaf miner Mites Thrips</p>	<p>1.75 to 3.75L/1000 L</p>	<p>Apply specified dosage in 2 to 4 mL/L of water as a full coverage spray.* Repeat as necessary. For birch and holly leaf miners, treatment should be repeated for second generation, first brood mid-May and second brood late part of June. Do not handle treated plants until spray deposit has dried. Injury has occurred in greenhouses on chrysanthemum varieties Hurricane, Iceberg, Whitetop, and Pennant. When large plantings of chrysanthemums are to be sprayed, treat only a few plants and observe for injury before treating the entire planting.</p>

SOIL DRENCH Chrysanthemum	Mites Thrips	1.75 to 3.75 L/1000 L	Mix specified dosage in 1000 L (2 to 4 mL/L) of water to form an emulsion. For potted plants apply 115 mL of the emulsion per 15 to 20 cm pot. To treat trees use 15 L of emulsion for plants up to 2 m tall and proportionally more for taller plants. For larger trees use 10 mL of METASYSTOX-R Spray Concentrate in 500 mL of water per cm of trunk diameter. Measure the trunk diameter approximately 1 m from ground level. Pour the required amount of emulsion around the base of the tree. In heavy compact soils best results may be obtained by making several holes in the ground under the dripline of the tree and applying the required amount of emulsion to this area. Additional water may be applied to leach toxicant into the root zone. Repeat as necessary to maintain insect control.
Dahlia	Mites		
Roses	Aphids		
Birch	Aphids		

* This concentration is calculated for conventional sprayers. When lower volumes of spray are applied per hectare, as with low-pressure low-volume, airplane or mist-type equipment, increase the concentration of METASYSTOX-R Spray Concentrate in the spray mixture in order to apply amount of METASYSTOX-R per hectare equivalent to a full coverage spray.

SEED CROPS: Application at the rates shown may be made at any time to all crops listed on this label provided they are being grown for seed purposes only and are not to be used for feed, food or forage. For specific recommendations regarding timing of applications, etc., consult local authorities.

PRECAUTIONS

Do not use on other crops used for food or forage. Use only according to label directions. Application at rates above those shown may result in illegal crop residues. Do not treat food crops grown in the greenhouse. This pesticide is toxic to fish and wildlife. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of wastes. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

RE-ENTRY STATEMENTS

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. DO NOT ENTER TREATED AREAS FOR 48 HOURS AFTER APPLICATION UNLESS PROTECTIVE CLOTHING AND EQUIPMENT, AS PRESCRIBED IN THIS LABELING, ARE USED.

PROTECTIVE CLOTHING, EQUIPMENT AND WORK SAFETY STATEMENTS

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

Keep all unprotected persons, children, livestock, and pets away from treated areas or where there is danger of drift.

Do not rub eyes or mouth with hands. If you feel sick in any way, STOP WORK and get help right away. See First Aid section of this label.

If handled indoors, provide mechanical exhaust ventilation.

HANDLE THE CONCENTRATE ONLY WHEN WEARING THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands and feet. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield. Wear a pesticide respirator approved for protection against organophosphate pesticides.

IF MIXING AND/OR LOADING IN A CLOSED SYSTEM WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear long sleeve shirt and long legged pants. Wear chemical resistant gloves, chemical resistant apron, and chemical resistant shoes, shoe coverings, or boots. Wear goggles or a face shield.

WEAR THE FOLLOWING PROTECTIVE CLOTHING DURING APPLICATION, EQUIPMENT

REPAIR, EQUIPMENT CLEANING, AND DURING EARLY RE-ENTRY TO TREATED AREAS.

Wear a protective suit of one or two pieces that covers all parts of the body except the head, hands and feet. Wear chemical resistant gloves, and chemical boots, shoes, or shoe coverings.

DURING APPLICATION ONLY FROM A TRACTOR WITH A COMPLETELY ENCLOSED CAB OR AERIALY WITH AN ENCLOSED COCKPIT WEAR THE FOLLOWING PROTECTIVE CLOTHING AND EQUIPMENT.

Wear long sleeve shirt and long legged pants, chemical resistant boots, shoes or shoe coverings. Clean chemical resistant gloves must be available in the cab/cockpit and must be worn while exiting. This clothing is inadequate to protect you during equipment repair, cleaning or re-entry.

IMPORTANT! Before removing gloves, wash them with soap and water. Always wash hands, face and arms with soap and water before smoking, eating, drinking or using the toilet.

AFTER WORK, take off all clothing and shoes. Shower using soap and water. Wear only clean clothes. Do not wear contaminated clothing. Wash protective clothing and protective equipment with soap and water after each use. Respirators must be cleaned and filters replaced according to instructions included with the respirators. Personal and protective clothing worn during use must be laundered separately from household articles. Clothing and protective equipment heavily contaminated or drenched with oxydemeton-methyl must be destroyed according to provincial and local regulations. HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.

FLAGGING: Human flaggers are prohibited unless in totally enclosed vehicles.

DANGER

POISON

Causes eye irritation. May be fatal if swallowed, inhaled or absorbed through the skin. Prolonged or frequently repeated skin contact causes allergic reactions in some individuals. Wear protective clothing specified on this label. Do not breathe spray mist. Wash thoroughly with soap and warm water after handling. Wash clothing with soap and hot water before reuse.

Avoid contamination of feed or food KEEP OUT OF REACH OF CHILDREN.

FIRST AID: In case of poisoning call a physician or contact a poison control centre immediately. Have patient lie down and keep quiet. **If swallowed**, vomiting should be induced. Administer water freely and induce vomiting by giving one dose (15 mL) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer a second dose. If syrup of ipecac is not available, induce vomiting by sticking

finger down throat. Repeat until vomit fluid is clear. The patient should be lying down with the head below the foot level and facing down or to one side. Professional medical assistance should be secured immediately. DO NOT INDUCE VOMITING TO AN UNCONSCIOUS PERSON OR TO PERSONS IN A CONVULSIVE STATE. **If on skin**, remove contaminated clothing and wash skin immediately with soap and warm water. **If eyes are contaminated**, wash immediately with flowing water for at least 15 minutes.

TOXICOLOGICAL INFORMATION: Oxydemeton-methyl inhibits cholinesterase resulting in stimulation of the central nervous system. This results in a sense of "tightness" in the chest, sweating, contracted pupils, stomach pains, vomiting and diarrhea. The antidote is atropine sulfate administered in large therapeutic doses repeated as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically. This product contains aromatic petroleum distillate.

DISPOSAL

1. **Do not reuse the container.**
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This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information.

This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.

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