



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

30 JUL 1991

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Ms. Rebecca A. Clemmer
Registration Specialist
Agrichemicals Division
Atochem North America, Inc.
3 Parkway, Room 619
Philadelphia, PA 19102

Dear Ms. Clemmer:

Subject: MICROTHIOL SPECIAL
EPA Reg. No. 4581-373
Your correspondence/submission of June 19, 1991

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the following comments.

At the next label printing, change the first sentence under Environmental Hazards to "Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark." and submit five (5) copies of final printed labeling to the Agency.

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

Sincerely yours,

Susan T. Lewis
Product Manager (21)
Fungicide-Herbicide Branch
Registration Division (H7505C)

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Enclosure

MICROTHIOL[®] SPECIAL

Micronized Wettable Sulfur

ACTIVE INGREDIENT:	
Sulfur	80.0%
INERT INGREDIENTS	20.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN, wash with soap and water.

IF IN EYES, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

IF SWALLOWED, give one or two glasses of water and induce vomiting by sticking finger down throat. Never give anything by mouth to an unconscious person.

ACCEPTED

With Comments

JUL 30 1991

Under the Federal Insecticide, Fungicide, and
 Rodenticide Act, as amended, for the
 pesticide registered under
 EPA Reg. No. **4581-373**

EPA Reg. No. 4581-373

EPA Est. No. 44420-FR-1

NET CONTENTS 30 LBS/13.6 KG

Sold by

ATOCHEM NORTH AMERICA, INC.—AGCHEM DIVISION

Philadelphia, PA 19102

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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 through any type of irrigation system.
OBSERVE SPECIFIC INSTRUCTIONS FOR USE IN CALIFORNIA.

REENTRY STATEMENT

Do not enter treated areas without protective clothing within 24 hours after application. Protective clothing means, at least, a hat or other suitable head covering, a long-sleeved shirt and long legged trousers, shoes and socks. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, such warnings shall be given in a language customarily understood by the workers. Oral warnings must be given when there is reason to believe that written warnings cannot be understood by the workers. Written warnings must include the following information: "CAUTION. Area treated with MICROTHIOL SPECIAL on (date of application). Do not enter without protective clothing within 24 hours after application. Protective clothing means, at least, a hat or other head covering, a long-sleeved shirt and long legged trousers, shoes and socks."

APPLICATION INSTRUCTIONS

Apply through any type of handheld, knapsack, mechanical or pneumatic spraying equipment.

MIXING: Pour the required amount of MICROTHIOL SPECIAL into the indicated amount of water while stirring. MICROTHIOL SPECIAL disperses instantly.

Dilute Application:

Field: Specified rate in 20 to 60 gallons of water per acre.

Orchard: Specified rate in 100 to 800 gallons of water per acre.

Concentrated Application:

Field: Specified rate in 5 to 10 gallons of water per acre.

Orchard: Specified rate in 20 to 100 gallons of water per acre.

Aerial Application:

Field: Specified Rate in 3 to 20 gallons of water per acre.

Orchard: Specified rate in 10 to 20 gallons of water per acre.

COMPATIBILITY

Microthiol Special is completely compatible with Bordeaux mixture, copper fungicides, liquid fertilizers and all organic fungicides, insecticides, acaricides and herbicides.

USE INSTRUCTIONS

Some crops may be damaged by sulfur under certain climatic conditions. Do not use on any crop unless sulfur has been shown to be safe in your locality. Do not allow spray to drift onto sulfur-sensitive crops such as apricots, cranberries, spinach and Anjou pears. Sulfur may burn foliage when temperature is high. Do not apply at such times. Do not use within two weeks of an oil spray treatment. For citrus, do not apply within 21 days of an oil spray. When growing crops for processing, consult the processor before applying sulfur.

NOTE: The application rates specified for each crop are the maximum that should be applied. These amounts may be reduced if experience or local practice indicate that lesser amounts may be effective. Consult State Agriculture Experiment Station or State Extension Service specialist for rates recommended in your local area.

VEGETABLE CROPS

CROP	PEST	RATE LBS/A	DIRECTIONS
Beans	Leaf Spot Powdery Mildew	7	Apply at early leaf stage and repeat at 14-day intervals as necessary.
Broccoli, Brussels sprouts, Cabbage, Cauliflower	Powdery Mildew Red Spider Mite	3-10	Begin in early leaf stage. Repeat application every 10 to 14 days as necessary. California Only: Apply 5 lbs per acre at early leaf stage and repeat every 14 days as necessary.
Carrots	Powdery Mildew Petal Blight	3-10	Apply at early leaf stage and repeat application every 14 days as needed.
Cucumbers	Powdery Mildew	2-4	Apply when disease first appears and repeat as necessary. Do not apply more than 2 pounds MICROTHIOL per acre per application during periods of high temperatures.
Greens, Collards, Kale, Mustard	Powdery Mildew Red Spider Mite	3-10	Apply at early leaf stage and repeat application every 14 days as needed. California Only: Apply 5 lbs per acre at early leaf stage and repeat every 14 days as necessary.
Lettuce (Head and Leaf) NOT FOR USE IN CALIFORNIA	Powdery Mildew Red Spider Mite	5-6	Apply at early leaf stage and repeat every 14 days as needed. Thorough coverage is required.
Melons	Powdery Mildew	10-15	Apply when disease first appears and repeat as needed. Sulfur can injure plants, especially when temperature reaches 95° F. Do not use on sulfur sensitive varieties.
Onions, Garlic	Powdery Mildew Petal Blight	3-10	Apply when disease first appears and repeat as needed. California Only: Apply 6 lbs per acre when disease first appears and repeat as necessary.
Potatoes	Powdery Mildew Red Spider Mite	5	Apply at early leaf stage and repeat every 14 days as needed.
Peppers	Powdery Mildew Red Spider Mite	3-10	Apply at early leaf stage and repeat every 14 days as needed. California Only: Apply 5 lbs per acre at early leaf stage and repeat every 14 days as necessary.
Pumpkins	Powdery Mildew Red Spider Mite	3-10	Apply at early leaf stage and repeat every 14 days as needed. California Only: Apply 5 lbs per acre at early leaf stage and repeat every 14 days as necessary.
Squash	Powdery Mildew	10-15	See use directions for melons, above.
Tomatoes	Rust Mite Powdery Mildew	5-10	Begin application when symptoms first appear. Thorough coverage is required.
Turnips	Powdery Mildew Red Spider Mite	3-10	Apply at early leaf stage and repeat every 14 days as needed. California Only: Apply 5 lbs per acre at early leaf stage and repeat every 14 days as necessary.

*NOT FOR THIS USE IN CALIFORNIA

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FRUIT AND NUT CROPS

CROP	PEST	RATE LBS/A	DIRECTIONS
Almonds	Brown Rot Leaf Spot Silver Mite Flat Mite Red Spider Mite	10-20	Apply at bloom or early petal fall. Repeat as necessary, usually 10 to 14 days or after a period of wet weather.
Apples, Pears	Powdery Mildew Scab Black Rot Red Spider Mite	10-20	Apply at petiole and petal fall. Apply with cover sprays throughout the season. Do not apply to Argus pears.
Avocado	Brown Mite	10-20	Apply as needed.
Citrus	Flat Mite Silver Mite Rust Mite Broad Mite Red Mite Red Spider Mite Star-spotted Mite Thrips Yucca Spider Mite	10-20	Do not apply in any spray containing oil when temperatures reach 85-90° F or above.
Grapes	Powdery Mildew Red Mite Black Rot Red Spider Mite	5-10	Apply throughout the season at 14-day intervals as needed. Note: Use with caution on Concord or Marzemino type grapes as injury can occur after bloom.
Mangoes	Powdery Mildew	10-20	Begin application before bloom. Repeat at bloom, after fruit set, and 3 weeks later or as necessary.
Stone Fruits Peaches, Plums, Cherries, Nectarines, Pistachios	Powdery Mildew Brown Rot Leaf Spot Silver Mite Flat Mite Red Spider Mite	10-20	Follow directions for almonds, above. For Brown Rot of fruit, apply when fruit starts to ripen. Do not apply to apricots.
Walnuts, Pecans, Macadamias*	Pacific Mite Almond Mite Two spotted Mite Red Spider Mite Broad Mite	10-20	Apply throughout the season as needed. Note: Some varieties of walnuts and pecans are sensitive to sulfur sprays under certain conditions. Do not apply unless varieties are known to be tolerant of sulfur. California Only. Apply a maximum of 20 lbs per acre as required.

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FIELD CROPS

CROP	PEST	RATE LBS/A	DIRECTIONS
Alfalfa NOT FOR USE IN CALIFORNIA	Atlantic Mite Red Spider Mite	8-10	Apply throughout the season as necessary.
Corn: Corn, Wheat, Barley, Oats, Rye, Sorghum	Red Spider Mite Two Spotted Mite Pacific Mite Atlantic Mite	8-10	Apply when symptoms first appear and repeat applications as necessary.
Cotton	Atlantic Mite Red Spider Mite	5-10	Apply throughout the season as necessary. California Only. Apply a maximum of 5 lbs per acre as necessary. Not for use on Atlantic mite.
Peanuts	Powdery Mildew Leaf Spot Red Spider Mite Rust	5-8	Apply at early leaf stage and repeat applications as necessary. California Only. Apply a maximum of 5 lbs per acre at early leaf stage and repeat every 14 days as necessary.
Soybeans	Leaf Spot Powdery Mildew	10-15	Apply at early leaf stage and repeat at 14-day intervals as necessary. California Only. Apply a maximum of 12.5 lbs per acre at early leaf stage and repeat every 14 days as necessary.
Sugar Beets	Powdery Mildew Red Spider Mite	5-10	Apply as soon as symptoms appear and repeat every 2 to 3 weeks as necessary.

*NOT FOR THIS USE IN CALIFORNIA

SMALL FRUITS AND BERRIES

CROP	PEST	RATE LBS/A	DIRECTIONS
Blackberries, Boyseberries, Dewberries, Loganberries, Blueberries, Gambelberries, Huckleberries, Currants	Powdery Mildew	8-15	Begin application before blossoms open and continue at 10-day intervals as necessary.
Raspberries	Powdery Mildew	8-15	Apply each week from first bloom to fruit set. Repeat as the weather requires.
Strawberries	Powdery Mildew Red Spider Mite	5-10	Begin application at early leaf stage and repeat as necessary. Do not use on sulfur-sensitive varieties.

MISCELLANEOUS CROPS

CROP	PEST	RATE LBS/A	DIRECTIONS
Squash, Pumpkin NOT FOR USE IN CALIFORNIA	Powdery Mildew	4-8	Apply when plant is 5-6" tall or when disease appears. Repeat twice, at 30-day intervals. Do not apply within 30 days of harvest.
Ornamentals, Roses	Powdery Mildew Leaf Spot	5-10 by ground or 3-20 by air	Apply to insure complete plant coverage. Begin when disease first appears and repeat at 5-10 day intervals. California Only. Apply a maximum of 5 lbs in 100 gals. of water when disease first appears and repeat at 10 day intervals as required.

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