

# THIOLUX® DRY FLOWABLE— MICRONIZED SULFUR

ACTIVE INGREDIENT:	BY WT.
Sulfur	80%
INERT INGREDIENTS:	20%
TOTAL	100%

### KEEP OUT OF REACH OF CHILDREN CAUTION

See Additional Precautionary Statements Avoid Breathing Spray Mist

EPA REG. NO. 55947-48-34704

EPA EST. NO. 36841-FR-01

**NET WEIGHT 50 LBS. (22.68 KG)** 

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## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

#### Personal Protective Equipment:

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and protective eyewear. Follow manufacturer's instructions for cleaning and 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 the 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 out side of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### STATEMENT OF PRACTICAL TREATMENT

If on skin: Wash with soap and plenty of water. Get medical attention. If in eyes: Flush eyes with plenty of water for at least fifteen minutes and get medical attention.

If inhaled: Remove victim to fresh air.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-228-5635, EXT. 136, OR CALL COLLECT, 612-851-8180, EXT. 136.

#### **ENVIRONMENTAL HAZARDS**

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. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment and when disposing of equipment washwaters.

#### PHYSICAL AND CHEMICAL HAZARDS

Sulfur dust suspended in air ignites easily. Keep away from heat, sparks and flame. Do not smoke while applying this product.

#### 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, waterproof gloves, shoes plus socks and protective eyewear.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Must be stored under dry conditions.

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: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

THIOLUX® is recommended for control of listed plant diseases, insects and spider mites on fruits, vegetables, and ornamentals when used as directed.

#### **USE PRECAUTIONS**

Some crops are susceptible to injury from sulfur under certain climatic conditions. The user is advised not to use on any crop unless local use has proven sulfur to be safe in that locality.

Sulfur may burn foliage or cause fruit injury when temperatures are excessively high. Do not apply at such times. Do not apply to or allow spray to drift on sulfur sensitive plants such as apricots, cranberries or spinach. Apply only to dormant Anjou pears. Do not use within two (2) weeks of an oil treatment, except for dormant sprays on pears and apples. For citrus, do not apply within 21 days of an oil application. Follow all other label

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directions or precautions as indicated.

When growing crops for processing consult processor before applying sulfur.

#### **DIRECTIONS FOR APPLICATION**

Fill spray tank half full with water. Pour needed amount into spray tank under agitation. If necessary, add a few drops of oil to avoid foaming. Maintain agitation throughout spray operation. Use lower recommended rates on following host and pest recommendation table when using concentrate equipment. Use higher rates when using dilute applications.

**Dilute Application:** Ground Application: Apply specified rate in 20 to 60 gallons of water per acre. Orchard Application: Apply specified rate in 100 to 800 gallons of water per acre.

Concentrate Application: Ground Application: Apply specified rate in not less than 5 gallons of water per acre. Orchard Application: Apply specified rate in 20 to 100 gallons of water per acre. Special concentrate equipment is necessary for these uses.

**Aerial Application:** Apply specified rate in 3 to 20 gallons of water per acre. Orchard rates should not be applied in less than 10 gallons of water per acre.

Chemigation: THIOLUX® may be applied through sprinkler systems including center pivot, lateral move, end tow, side wheel roll, traveler, big gun, solid set, and hand move. Do not apply THIOLUX through any other type of irrigation system. Do not apply THIOLUX through any irrigation system when wind speed favors drift beyond the area intended for treatment.

Crop injury or lack of effectiveness can result from uneven distribution of treated irrigation water. For center pivot systems, apply during one full revolution of the system. For other systems listed above (i.e., portable or solid set systems), apply during the final 15 minutes of the irrigation period. Maintain proper agitation in the THI-OLUX supply tank. Do not operate irrigation system after application until deposit has thoroughly dried. If you have questions about system operation or calibration, contact State Extension Service specialists or chemigation equipment manufacturers. 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. Do not connect an irrigation system (including greenhouses systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN APPLYING PESTICIDES AND PLANT NUTRIENTS THROUGH IRRIGATION SYSTEMS: SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS:

- Public water systems means any system for provision to the public of piped water for human consumption is 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 dis charged 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 system 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 not 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 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.

SPRINKLER CHEMIGATION APPLICATIONS:

- 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

		Lbs. per
Crops	Pest	Acre
ALMONDS, CHERRIES,	Brown rot blossom blight,	10 to 30
NECTARINES, PLUMS,	Brown rot blossom blight,	
PRUNES, PEACHES Apply at bloom or early petal	Cherry leafspot, Powdery mildew, Rust, Scab, Leafspot,	
fall. Repeat as necessary,	Silver mite, Flat mite, Red	
usually 10 to 14 days after a	spider mite	
period of wet weather. For	•	
brown rot of fruit, apply when		
fruit starts to ripen. For rust of		
peaches and prunes, apply any		
time from late spring to fall in a preventative program.		
APPLES, PEARS	Powdery mildew, Scab, Blister	10 to 30
Dormant applications with oil	mite, Red spider mite	10 10 00
may be made to apples and		
pears. Apply only to dormant		
Anjou pears. Apply pre-bloom		
and petal fall. Apply with cover		
sprays throughout the season.		
ASPARAGUS	Rust	10 to 30
Use after cutting stops. Irrigate		
and cultivate before applying; repeat at 7 to 10 day intervals		
throughout the season.		
AVOCADOS	Brown mite	10 to 30
Apply as needed.		
BEANS, PEAS, POTATOES,	Powdery mildew, Rust, Red	3 to 10
RUTABAGAS, TURNIPS	spider mite	
Begin applications in early leaf		
stage. Repeat application every		
10 to 14 days with or without		
pesticides immediately after a rain.	5	<u> </u>
BROCCOLI, BRUSSELS	Powdery mildew, Rust, Red	3 to 5
SPROUTS, CABBAGE, CAULIFLOWER, COLLARDS,	spider mite	
KALE, PEPPERS		
Begin applications in early leaf		
stage. Repeat application every		
10 to 14 days with or without		
pesticides immediately after a rain.		
BLACKBERRIES, BOYSEN-	Powdery mildew	6 to 15
BERRIES, GOOSEBERRIES, LOGANBERRIES		
Begin application when new		
shoots are 6 inches long and		
before blossoms open or when		
disease first appears. Repeat at		
7 to 10 day intervals or as		
necessary.		
BLUEBERRIES, CURRANTS,	Powdery mildew	5 to 10
DEWBERRIES, HUCKLEBERRIES		
Begin application when new		
shoots are 6 inches long and		
before blossoms open or when disease first appears. Repeat at		
7 to 10 day intervals or as		
necessary.		
CARROTS, ONIONS, GARLIC	Petrobia mite and Powdery	3 to 10
Apply when the disease first	mildew	
appears and repeat as needed.		
CITRUS	Flat mite, Silver mite, Rust mite,	8 to 20
Apply in any spray—NOT	Bud mite, Red spider mite, Six	
CONTAINING OIL—or	spotted mite, Thrips, Yuma	
following oil by 21 days.	spider mite	0. 5
CORN, BARLEY, OATS, RYE,	Suppression - Red spider mite,	6 For
SORGHUM, SOYBEANS, WHEAT	Two-spotted mite, Grass banks mite, and Pacific mite; Control -	soybeans 7.5 to 12.5
Apply when disease first	Atlantic mite (small grain only)	7.0 10 12.0
appears and repeat as	and for control of Powdery	
necessary or with the regularly	mildew (soybeans only)	
scheduled insect program.		
COTTON, ALFALFA	Atlantic mite, Red spider mite	3 to 5
Apply as needed.		

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Crops	Pest	Lbs. per Acre
CUCURBITS	Powdery mildew	Cucumber
Apply when the disease first		4 to 6
appears. Repeat at 10 to 14 day		Melons
intervals or as necessary		6 to 15
throughout the growing season.		Squash
Sulfur can injure plants,		4 to 10
especially when temperatures		
reach 95 <sup>0</sup> F. Do not use on		
sulfur sensitive varieties.		
GRAPES	Powdery mildew, Bud mite,	6
Begin application in late dormant	Blister mite, Red spider mite	
or with cutworm spray, early		
shoot period and through season		
on 14 day schedule or with		
pesticides.		
MANGOS	Powdery mildew	10 to 30
Begin applications before bloom,	•	
repeat in-bloom, after fruit set		
and 3 weeks later or as necessary.		
PEANUTS	Rust, Red spider mite, Leaf spot	3 to 5
Begin application in early leaf		
stage. Repeat applications as		
necessary, usually in 10 to 24 days.		
PISTACHIOS	Citrus flat mite	10 to 30
Begin application when mites	Citras hat mits	10 10 00
are first detected. Repeat		
applications as necessary.		
RASPBERRIES	Powdery mildew	6 to 15
Apply weekly starting at first	1 Owacry Illiaew	0 10 10
bloom color. Continue through		
out fruit set; then repeat as		
weather requires.		
SPEARMINT, PEPPERMINT	Powdery mildew	4 to 6
Apply when mint is 5-6" tall or	1 owdery miliaew	+ 10 0
when disease appears. Repeat		
twice at 30 day intervals. Do not		
apply within 30 days of harvest.		
STRAWBERRIES	Powdery mildew, Red spider	5 to 10
Begin application in early leaf	mite	3 10 10
stage, repeat application with or	Tille	
without pesticides. For Powdery		
mildew, begin at first signs of		
disease and repeat as neces-		
sary. Do not use on sulfur		
sary. Do not use on sulful sensitive varieties.		
SUGAR BEETS	Davidani mildau Dad anidar	10 to 20
	Powdery mildew, Red spider	10 to 20
Apply at 10 to 30 day intervals	mite	
with or without other pesticides		
as soon as the first symptoms		
appear.		
TABLE BEETS	Powdery mildew, Red spider	3 to 5
Apply at 10 to 30 day intervals	mite	
with or without other pesticides		
at first symptoms.		
TOMATOES	Russet mite, Powdery mildew	6 to 20
Apply at first symptoms.		
Thorough coverage is required.		
WALNUTS	Pacific mite, Almond mite,	10 to 20
Apply and repeat as necessary	Two-spotted mite, Red spider	
throughout season as neces-	mite	
sary. Tank mix with chemical		
mite sprays to increase effective-		
ness. CAUTION: Certain varieties		
of walnuts are sensitive to sulfur		
of walnuts are sensitive to sulfur sprays under certain conditions.		

OKNAWENTALS, GRASS SEED PRO	DUCTION
ORNAMENTALS all (see below	Ground
for host and pest)	3 to 10
Apply as aqueous spray for	Air
complete plant coverage. Begin	3 to 20
when disease first appears and	
repeat at 5 to 10 day intervals.	

ASTERS, CARNATIONS, COSMOS, CREPE MYRTLE, DAHLIA, DELPHINIUM, GLADIOLUS, LIGUSTRUM, SUNFLOWERS, SWEET PEAS, VIOLETS, ZINNIAS

Powdery mildew

Crops	Pest	Acre
CALENDULA, CHERRY LAURELS, CHRYSANTHEMUM, HOLLYHOCK, SMILAX	Leaf spot and Powdery mildew	
CLEMATIS, COLUMBINE, ENGLISH IVY, LAUREL, PETUNIA, SAGE	Leaf spot	
ROSES	Powdery mildew and Black spot.	
GRASS GROWN FOR SEED Apply in tank mix with TiLT® Fungicide for enhanced control of rusts. Begin applications when rust pustules are evident and increasing in number from late spring through early summer. Do not exceed 12 lbs./A THIOLUX per season. Read and follow all application rates and use precautions on companion fungicide label. Do not apply this tank mix through any irrigation system.	Rust	3 to 5

Lbs. per

#### **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 CON-TROL OF PLATTE. THE MANUFACTURER OR SELLER. IN NO CASE SHALL PLATTE, THE MANUFACTURER OR SELLER BE LIABLE FOR CONSEQUEN-TIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER.

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