Reg # 400-363 PM-21 ACCEPT

197

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

MAY 06 1994

Judith O. Ball
UNIROYAL CHEMICAL CO., INC.
74 AMITY RD
BETHANY, CT 06524

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 04/04/94 in Response to PR Notice 93-7
EPA Reg. No. 400-363
UNIFLOW SULFUR

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
AND
- WITHIN one year from date of this acceptance.

Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,

Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

UNIROYAL CHEMICAL CO., INC.
400-363 04/04/94
UNIFLOW SULFUR
Original Submission

Remove the statement "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." from its current position within the Agricultural Use Box and place it above the Agricultural Use Box.

The following statement on your proposed label is not required for this product: "Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas." Delete it from the Agricultural Use Requirements box.

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

UNIFLOW® SULFUR

CONTAINS 6 LBS. SULFUR PER GALLON

UNIROYAL CHEMICAL

COMPOSITION

Active Ingredients: (% by weight)	
Sulfur as S	52.4%
Inert Ingredients	47.6%
Total:	100.0%

Contains 6.0 pounds Sulfur per gallon.

UNIROYAL CHEMICAL COMPANY. INC., Middlebury, CT 06749 004WPS
EPA REG. NO. 400-363
EPA EST. NO.

NET WEIGHT

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. Get Medical Attention.
IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
AND DOMESTIC ANIMALS
CAUTION

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

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: A long-sleeved shirt & long pants; waterproof gloves; shoes plus socks.
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.
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.

ENVIRONMENTAL HAZARDS

Do not apply directly to water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

ACCEPTED
with COMMENTS
In EPA Letter Dated
MAY 06 1994

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 400-363

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), notification to workers 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 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.

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

Notify workers of the application warning them orally and by posting warning signs at entrances to treated areas.

PRODUCT INFORMATION

UNIFLOW SULFUR is a flowable sulfur formulation that may be applied as a ground or aerial application. Consult your State Agricultural Experimental Station or Extension Specialist for advice in selecting treatments from this label to best fit local conditions.

UNIFLOW SULFUR can be mixed and applied with liquid fertilizer or water. Do not combine with emulsifiable liquids except on dormant sprays or delayed dormant spray applications.

USE ONLY ON CROPS LISTED AND ONLY AS SPECIFIED ON THIS LABEL. EXCEPT ON COTTON, do not apply when temperatures are likely to exceed 90°F. Do not use sulfur with oil or within 28 days (for citrus 21 days) of an oil application unless in the dormant, delayed dormant, or post harvest application.

NOTE: Sulfur will cause severe fruit and leaf injury to sulfur-sensitive crops. Do not apply or allow to drift to apricots, d'Anjou and Comice pears, cranberries, sensitive varieties of cucurbits, filberts, spinach, tung trees, walnuts or other sensitive plants. Sulfur may burn foliage and fruit during periods of high temperatures and under certain climatic conditions.

UNIFLOW SULFUR is recommended to alleviate sulfur deficiency. It may be used by itself or with other products to maintain sulfur levels in crop foliage.

Use of this material in a manner other than in accordance with this label may cause serious plant, crop or personal injury, excessive residues, unsatisfactory control or other unintended consequences. Unless otherwise specified for specific tree fruits, dosage rates are given as amount of UNIFLOW SULFUR per 100 gallons water. Apply with adequate water to ensure thorough plant coverage. For best results apply during the early morning when the crop is not stressed for water.

UNIFLOW SULFUR is adaptable to spraying from all types of spray equipment. Use the appropriate rate of UNIFLOW SULFUR in the following spray volumes: for dilute, high volume sprays apply 25 to 100 gallons per acre (GPA) for most vegetable crops, 100 to 800 GPA for fruit orchards and up to 1500 GPA as may be required for large citrus groves; for concentrate ground sprays, use 5 to 20 GPA for most vegetable crops and 25 to 100 GPA for fruit and nut crops, for aerial spraying 3 to 10 GPA are commonly used. For small spray volumes, 2½ tablespoons of UNIFLOW SULFUR per gallon of water is comparable to 8 pints per 100 gallons of water.

DIRECTIONS FOR MIXING
BEFORE USING, STIR UNTIL SMOOTH

Add UNIFLOW SULFUR to partially filled spray tank. Agitate during filling and spraying. DO NOT STOP AGITATION WITH SULFUR IN SPRAY EQUIPMENT. When used with dormant oil, add oil when the tank is half full of water and maintain agitation until spraying is completed. The strong adhesive properties of UNIFLOW SULFUR act as a sticker on the plant, and the sticking characteristic necessitates the flushing of equipment with water after each day's use. Sulfur in any form is corrosive material. To reduce the effect, equipment should be flushed daily.

RECOMMENDATIONS
TREE FRUITS/NUTS

Unless otherwise specified for specific crops, dosage rates are given as pints of UNIFLOW SULFUR per 100 gallons water for use in a thorough coverage spray. Because of variations in the types of spray equipment used, a range of low and high rates is listed. This product should be applied by ground equipment, aircraft or sprinkler systems in sufficient water to provide thorough coverage. Do not use sulfur with oil or within 28 days (for citrus 21 days) of an oil application unless in a dormant, delayed dormant, or post harvest application.

ALMONDS:
Brown Rot, Scab: Pre-bloom, bloom and post-bloom periods. Apply when disease threatens during rain periods and repeat at 7 to 10 day intervals. Apply 2 to 3 pints per acre.

APPLE, PEAR:
Scab:
Pre-bloom through calyx sprays ..... 1½ to 3½ pints
Cover Sprays ..... ¾ to 2 pints
Powdery Mildew:
Pre-bloom through calyx sprays ..... 2 to 3 pints
Cover Sprays ..... 2 pints
Blister mite, Red spider mite: ..... 2 to 3 pints

AVOCADO:
Brown Mite: Apply 2 gallons of UNIFLOW SULFUR per acre in sufficient water for thorough coverage. Use as needed.

CHERRY, PLUM, PRUNE:
Brown Rot, leafspot:
Pink and Bloom Sprays ..... 1½ to 3½ pints
Petal fall, shuck and cover sprays ..... ⅜ to 1¾ pints
Powdery Mildew and Red spider:
Apply at bloom or early petal fall. Repeat as necessary, usually 10 to 14 days or after a period of wet weather ..... 2 to 3 pints.

CITRUS:
Rust Mite, Clover Mite, Flat Mite, Two-spotted Mite, Red Spider Mite, Yuma Spider Mite, Six-spotted Mite:
Apply sprays September through May ..... ¾ to 4½ pints
Thrips (Early spring treatment for the reduction of Thrips Population): Apply 1 to 2 gallons per acre in sufficient water for thorough coverage. Make application after spring flush has made 3 to 4 inch growth. Repeat if necessary. Do not apply within 21 days of an oil application.

PEACH, NECTARINE:
Powdery Mildew, Brown Rot, Scab, Peach Silver Mite:
Pink and Bloom Sprays ..... 1½ to 3½ pints
Petal fall, shuck and cover sprays ..... ⅜ to 1¾ pints
Application to mature nectarines may cause discoloration.

PISTACHIOS.
Citrus Flat Mite: Apply 2 to 4 pints when mites first appear and repeat as necessary.

FIELD AND VINE CROPS

For field and vine crop recommendations, the range of acceptable use rates reflects the amount of UNIFLOW SULFUR to be used depending upon individual crop disease control needs. Unless otherwise specified for specific crops, dosage rates are given as pints of UNIFLOW SULFUR per acre. This product should be applied by ground equipment, aircraft or sprinkler irrigation systems in sufficient water to provide thorough coverage.

Consult the State Agricultural Extension Service or State Agricultural Experiment Stations in your region for specific information on rates, timings, and number of applications for the area.

Sprinkler Irrigation Water: Use recommended rate per acre by injecting into sprinkler system at or near the irrigation pump. For center pivot systems, apply during the full revolution of the system. For portable or solid set systems, apply during the final 15 minutes of the irrigation period. Do not operate irrigation system after application until deposit has thoroughly dried. Apply the product through systems containing: 1) anti-siphon and check valves which will prevent water source contamination and overflow or the slurry tank and 2) interlocking controls between the metering device and the water pump to insure simultaneous shut off. See CHEMIGATION section on side panel for additional use directions and precautions.

ALFALFA: For control of Red spider mite apply 4 to 8 pints per acre.

POTATOES, BEANS, PEAS, BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, COLLARDS, KALE, TABLE BEETS, MUSTARD GREENS, RUTABAGAS, TURNIPS, PEPPERS: For control of Powdery Mildew, Septoria leaf spot, Red spider mite apply 4 to 8 pints of UNIFLOW SULFUR per acre. Start at early leaf stage. Repeat application every 10 to 14 days with or without pesticides immediately after a rain.

BLACKBERRIES, BLUEBERRIES, BOYSENBERRIES, CURRANTS, DEWBERRIES, GOOSEBERRIES, HUCKLEBERRIES, LOGANBERRIES, RASPBERRIES: To control Powdery Mildew use 4 pints per 100 gallons of water. Apply when disease first appears and repeat at 7 to 10 day intervals or as necessary to maintain control.

CARROTS, ONIONS and GARLIC: To control Petrobia Mite and Powdery mildew use 4 to 8 pints per acre.

CORN, SMALL GRAINS, SORGHUM, SOYBEANS: For suppression of Red spider mite, Two-spotted mite, Grass banks mite and Pacific mite use 4 to 8 pints per acre. Apply when insect first appears and repeat as necessary or with the regularly scheduled insect program. Sulfur Deficiency: Apply 2 to 4 pints per acre in at least 1 to 20 gallons of water. Application should be made early in the growing season. This treatment should be repeated if crops continue to show sulfur deficiencies.

COTTON: Atlantic Mite and Red Spider Mite: Use 1 to 2 pints for early season control and up to 8 pints for mid to late season control.

CUCURBITS: Sulfur Deficiency: Do not apply to sulfur sensitive varieties of cucumbers, watermelons, cantaloupes and squash. Never apply more than 1 pint per acre, per application and never apply when temperatures are over 90°F. Use a minimum of 5 to 25 gallons of water per acre when spraying through a conventional sprayer. For best results spray when the crop is in a natural growing state after irrigation or natural rain fall. Spray early in the morning or late afternoon. Mid-day sprays may not be effective because of excessive moisture evaporation.

GRAPES: Powdery Mildew: Use 1 to 2 pints per 100 gallons water, maximum of 8 pints UNIFLOW SULFUR per acre in spring and summer. Make first application when shoots are 6 to 8 inches long, second when shoots are 12 to 15 inches long, and third at about bloom stage. The timing, rate and number of applications will vary with local conditions. Consult the State Agricultural Extension Service or State Agricultural Experiment Stations in your region for specific information.

MANGOS: For control of Powdery mildew apply 8 pints per acre. Begin before bloom. Repeat in bloom, after fruit set and 3 weeks later or as necessary.

MELONS: For control of Powdery mildew apply 1 pint per acre. Begin treatments when disease first appears. Sulfur can injure plants, especially when the temperature is above 90°F. Do not use on sulfur sensitive varieties.

PEANUTS: For rust use 2 to 4 pints per acre in enough water for good coverage. Begin 40 to 60 days after planting. Use 7 to 14 day intervals as long as needed to control rust.

PEAS: Sulfur Deficiency: Use 2 to 4 pints per acre starting at late bud to early bloom stage. Repeat in 10 to 14 days.

PASTURE, FIELD, AND GRAIN CROPS: Sulfur Deficiency: Apply 2 to 4 pints per acre in at least 1 to 20 gallons of water. Application should be made early in the growing season. This treatment should be repeated if crops continue to show sulfur deficiencies.

SPEARMINT AND PEPPERMINT: Mites and Powdery Mildew. Apply 2 to 5 pints per acre, by air or ground, in sufficient water to insure thorough coverage. Apply when first sign of infection appears or when plants have 4 to 5 leaves, followed by additional sprays at 2 to 3 week intervals, until pink bud stage or 4 weeks before harvest. After harvest, apply when infection appears or when plants have 4 to 5 leaves and repeat at 2 to 3 week intervals as often as necessary to cover new growth or until growth ceases in the field. Before applying on a crop to be harvested for oil, authorization should be obtained from the buyer of the oil.

STRAWBERRIES: Powdery Mildew: Use 2 pints. Apply at first sign of infection and repeat at 3 week intervals. For strawberries that will be canned, discontinue application of sulfur well before harvest in accordance with local canners' recommendations.

SUGAR BEETS: For control of Powdery Mildew, use 4 to 8 pints UNIFLOW SULFUR per acre in 5 to 10 gallons of water for applications by air, or in 10 to 20 gallons of water for ground applications. Apply at the first sign of infection and repeat at 10-30 day intervals or as necessary throughout the season. Under most disease conditions only one or two applications will be needed.

TOMATOES: Tomato russet mite: Use 4 to 8 pints per acre depending upon size of plants. Use full coverage sprays.

TURF GRASS: Sulfur Deficiency, Control of Soil pH: Apply 1 pint in 10 gallons of water per 1000 sq. ft. Begin applications in early spring and make 4 treatments per year. Do not exceed 1 pint per 1000 sq. ft. per application. (Note: Researchers have indicated that sulfur in some instances can be used to suppress Poa Annua populations and Fusarium patch disease.)

ORNAMENTALS: For small spray volumes, 2½ level tablespoons of UNIFLOW SULFUR per gallon of water is comparable to 8 pints per 100 gallons of water. For ornamentals use 1 to 2 tablespoons of UNIFLOW SULFUR per gallon of water (comparable to 2 to 4 lbs. active sulfur per 100 gallons of water), ensuring complete plant coverage. Begin when disease first appears and repeat at 5 to 10 day intervals.

ORNAMENTAL	DISEASE CONTROLLED
Aster, Carnations	Powdery Mildew
Calendula, Cherry Laurels, Chrysanthemums, Hollyhock, Smilax	Leaf Spot, Powder Mildew
Clematis, Columbine, Ivy (English), Laurel, Petunia, Sage	Leaf Spot
Cosmos, Crepe Myrtle, Dahlia, Delphinium, Gladiolus, Ligustrum, Sunflowers, Sweet Peas, Violets, Zinnias	Powdery Mildew
Roses	Powder Mildew, Black Spot

CHEMIGATION
USE DIRECTIONS AND PRECAUTIONS

In addition to the above DIRECTIONS FOR USE and DIRECTIONS FOR MIXING, the following precautions must be observed when using this product in a sprinkler irrigation system.

Apply this product only through sprinkler (including center pivot, lateral move, end tow, side wheel roll, traveler, big gun, solid set, or hand move) 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.

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.

FOR CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS:

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 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.

STORAGE AND DISPOSAL

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

STORAGE: Store in a dry location

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved wastes disposal facility.

CONTAINER DISPOSAL: 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.

IMPORTANT NOTICE—Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, **but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.**