



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

APR 6 1994

File

Will Hartfeldt
SOURCE TECHNOLOGY BIOLOGICALS INC.
3355 Hiawatha Ave. S., #222
Minneapolis, MN 55406

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 10/25/93 in Response to PR Notice 93-7
EPA Reg. No. 49538-2
PHYTON-27

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.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

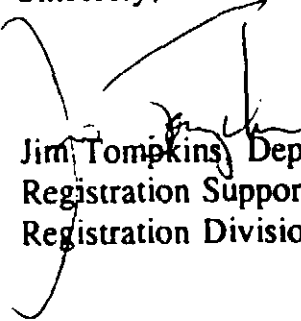
Submit the final printed labeling via the U.S. Postal Service to:

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

Will Hartfeldt
SOURCE TECHNOLOGY BIOLOGICALS INC
3355 HIAWATHA AVE S, #222
MINNEAPOLIS MN 55406

Comment for: EPA Reg Nr.49538-2
PHYTON-27

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.

A chemical-resistant apron is not required for early entry. Remove the requirement for "chemical-resistant apron" from the early entry personal protective equipment requirements in the Agricultural Use Requirements box.

Correct the typographical errors circled on your proposed label.

BEST AVAILABLE

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS (& DOMESTIC ANIMALS)

Precautionary Statements
DANGER Corrosive. Causes irreversible eye damage and skin burns. Harmful if absorbed through the skin or swallowed. Do not get in eyes, on skin, or on clothing. May cause skin sensitization in certain individuals.

Applicators and other handlers must wear:
Overalls over long sleeved shirt and long pants
Waterproof gloves
Chemical-resistant footwear plus socks
Protective eyewear
Chemical resistant headgear for overhead exposure
Chemical resistant apron when cleaning equipment during mixing or loading
Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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
This product is toxic to fish. For terrestrial uses, do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

STORAGE AND DISPOSAL
See attached label brochure for information on storage and disposal.

CONTENTS
U.S. 8 Fluid Ounces
236 Milliliters



BACTERICIDE & FUNGICIDE

ACTIVE INGREDIENT
Copper Sulphate Pentahydrate* 21.38%

INERT INGREDIENTS 78.62%
100.00%

*Copper as Metallic 5.5%

Contains 2.00 lbs. Active Ingredient per gallon

KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en español. If you do not understand the label, find someone to explain it to you in detail.

STATEMENT OF PRACTICAL TREATMENT:
If in Eyes: Flush with plenty of water for at least 15 minutes and seek medical attention immediately.
If on Skin: Wash with plenty of water. Get medical attention.
If Swallowed: Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are unavailable, large quantities of water. Avoid alcohol.
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.
See side panel for additional precautionary statements.

U.S. PAT. NO. 4,573,687
E.P.A. REG. NO. 4953A-2
E.P.A. EST. NO. 42705-MW-01

Source Technology Biologicals, Inc.
3155 Hawatha Avenue South
Minneapolis, MN 55406 (612) 724-7102

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 intervals. 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 workers to enter into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry into 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:
Overalls over long sleeved shirt and long pants
Waterproof gloves
Chemical-resistant footwear plus socks
Protective eyewear
Chemical-resistant headgear for overhead exposure
Chemical-resistant apron when cleaning equipment during mixing or loading

SEE ATTACHED LABEL BROCHURE FOR DIRECTIONS FOR USE

Under the Fungicide, as amended, registered on 4/25

BEST AVAILABLE COPY

ENVIRONMENTAL HAZARDS

This product is toxic to fish. For terrestrial use, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

NOTICE:

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials.

STORAGE AND DISPOSAL

STORAGE—STORE IN ORIGINAL CONTAINER AT NOT LESS THAN 45° F. DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. OPEN DUMPING IS PROHIBITED. DO NOT REUSE THESE CONTAINERS.

PESTICIDE DISPOSAL—PESTICIDE WASTES ARE ACUTELY HAZARDOUS. IMPROPER DISPOSAL OF EXCESS PESTICIDE, SPRAY MIXTURE, OR FINISH IS A VIOLATION OF FEDERAL LAW. IF THESE WASTES CANNOT BE DISPOSED OF BY USE ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY, OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GUIDANCE.

CONTAINER DISPOSAL—TRIPLE RINSE (OR EQUIVALENT), THEN OFFER FOR RECYCLING OR RECONDITIONING OR DISPOSE OF IN A SANITARY LANDFILL, OR BY INCINERATION IF ALLOWED BY STATE AND LOCAL AUTHORITIES.

GENERAL—CONSULT FEDERAL, STATE OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES SUCH AS LIMITED OPEN BURNING.

Phyton[®] 27

BACTERICIDE & FUNGICIDE

ACTIVE INGREDIENT
Copper Sulphate Pentahydrate*.....21.36%
INERT INGREDIENTS.....78.64%
100.00%
*Copper as Metallic.....5.5%
Contains 2.06 lbs. Active Ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN
DANGER**

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS & DOMESTIC ANIMALS
DANGER. Corrosive. Causes irreversible eye damage and skin burns. Harmful if absorbed through the skin or swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles and rubber gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. May cause skin sensitization in certain individuals.
STATEMENT OF PRACTICAL TREATMENT:
If In Eyes: Flush with plenty of water for at least 15 minutes and seek medical attention immediately.
If on Skin: Wash with plenty of water. Get medical attention.
If Swallowed: Drink promptly a large quantity of milk, egg white, gelatin solution, or, if these are unavailable, large quantities of water. Avoid alcohol.
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.
You may contact CHEMTEC at 1-800-424-9300

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.

Source Technology Biologicals, Inc.
3355 Hiawatha Avenue South
Minneapolis, MN 55406 (612) 724-7102

RE-ENTRY STATEMENT

Do not enter treated area without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with the product, consult your state department of Agriculture for further information.

PRECAUTIONARY STATEMENT

PHYTON-27 is reported compatible with many registered pesticides. However, before adopting the use of additives and/or combinations for general applications, test for physical compatibility and noninjury under your conditions of use.

GENERAL DIRECTIONS

1. Shake well before mixing with water. Use within 48 hours after mixing.
2. PHYTON can be applied with any type of application equipment that gives uniform coverage of all foliage, including ground, aerial, and low volume sprayers. The volume of water needed will depend on the spray equipment and the size of the crop. Use in sufficient water to provide thorough coverage.
3. Low volume applications require conversion 8. ounces/volume to fl. ounces/acre.
4. PHYTON can be used up to the time of harvest.
5. Metal piping or equipment used for application should be brass or stainless steel.
6. Liquid equivalents: one fluid ounce = 29.5 milliliters = 6 teaspoons.

**SPECIFIC DIRECTIONS: ORNAMENTAL & NURSERY CROPS—
Greenhouse, Field, & Interior**

SPRAY	Dosages in fluid ounces of PHYTON-27 per 10 gallons water						
	Black Spot	Botrytis	Powdery Mildew	Erwinia	Pseudo-monas	Xantho-monas	Cyandro-cladium
Canna Lily		1.5-2		1.5-2			
Cyclamen		1.5-2		1.5-2			
Tropical Foliage				2-5	2-5	2-5	
Geranium		1.5			1.5-5	1.5-5	
New Guinea Impatiens		1.3-1.5					
Orchid		1.3-1.5		1.5-4	1.5-4	1.5-4	
Poinsettia		1.3-1.5	1.3-1.5	1.3-2			
Rose bush	1.5-5	1.5-5	1.5-5				
Rose dormant stock		1.5					
Begonia			1.3-1.5				
Primula				1.5-2			
Holiday Cactus				1.5-5	1.5-5	1.5-5	
Gerbera		1.5-2.5					
Chrysanthemum		1.5-2.5		1.5-2			
Eucalypt		1.5-2.5					
Kalanchoe		1.5-2.5	1.5-3.5				
Hibiscus				1.5-2.5	1.5-2.5		
Spatiophyllum						1.5-2.5	
African Violet			1.3-1.5				

Spray for thorough foliage coverage. Re-spray rates and intervals vary with severity of disease and adversity of environmental conditions. Lower rates may be as effective as higher rates and should be tried first. Routine preventive programs may be maintained at the lower rates. Rates up to 7 fluid ounces can be used for powdery mildew on roses if no blizzards are seen.

DIP APPLICATIONS

DIP CUTTINGS Dip cut end or submerge cutting for a few seconds, then stick into rooting medium. Dosages in fluid ounces of PHYTON 27 per 5 gallons water.

Poinsettia	Botrytis	Cyandro-cladium	Bacterial	DIP CUT FLOWERS	
				Rose	3-3 3/4 tsp.
ALISA	1	2-5	1	Carnation	2-3 tsp.
Geranium	1			Chrysanthemum	2-3 tsp.
Tropical Foliage				Gerbera	2-3 tsp.
Holiday Cactus				Orchid	2-3 tsp.
Chrysanthemum	1			Snapdragons	1-2 tsp.
Mirtosess		2-5		Sweetpeas	1-2 tsp.
				Delphiniums	1-2 tsp.
				Astromeris	3/4-1 tsp.
				Freesia	3/4-1 tsp.

SOIL DRENCH	Dosage in fl. ounces of PHYTON 27/ 10 gallons water.				
	Black spot	Botrytis	Cyandro-cladium	Pseudo-monas	Erwinia soft rot
Azalea			2-3.5	2-3.5	
Flaxdodendron				2-3.5	
Cyclamen					1.5
Geranium		2-3.5			
Rose	2-3.5		2-3.5		
Spatiphyllum			2-3.5		

**SPECIFIC DIRECTIONS:
SHADE AND ORNAMENTAL TREES**

ELM, trunk injection, Dutch elm disease and Cankers (B. tercularia) inject once during the growing season for control should be six inches or less above the soil line. Injection should be made if the elm appears more than 20% diseased or if through root grafts from another diseased tree or stump. Flow within 10 days after treatment.

Dosage by elm size (diameter at breast ht.)	PHYTON-27 fl. ounces	Water gallons
12 to 18 inches dbh	2	2
20 to 26 inches dbh	3	3
27 to 33 inches dbh	4	4
34 to 40 inches dbh	5	5
41 to 48 inches dbh	6	6

Use the red oak dosage for red (slippery) elm.

OAKS, RED/WHITE, Oak WIM. Trunk injection. On red follow injection direction for elm, taking care that holes are barked oaks. Treatment is best in the month before fall.

Dosage by tree variety and size	Fl. Ounces per 100 gallons water	
	Red Oak/Red Elm	White Oak
12 to 18 inches dbh	1 fl. ounce	1.5 fl. oz.
20 to 26 inches dbh	1.5 fl. ounces	2 fl. oz.
27 to 33 inches dbh	2 fl. ounces	3 fl. oz.
34 to 40 inches dbh	2.5 fl. ounces	3.5 fl. oz.
41 to 48 inches dbh	3 fl. ounces	4.5 fl. oz.

SHADE TREE CANKERS, Cytophora on GREEN COTTONWOOD; Botryodiplodia and Cytophora on HAWTHORN; Nectria on HONEY LOCUST. Trunk Injection. Follow instructions.

Dosage by tree size	PHYTON-27
10 inches dbh	1.5 fl. ounces
20 inches dbh	2.5 fl. ounces

WOODY ORNAMENTAL IN THE ROSACEAE FAMILY: Apple, Ornamental Pear, Mountain Ash, Cotoneaster, Scab and Fireblight (Erwinia). Spray to run-off. Fireblight 100 gallons water. Apply as preventive at closed bud or disease appears. Apple Scab. Dosage: 40 fl. oz. per 100 gallons water. Apply as preventive at closed bud or disease appears and if it reappears.

PINES, Diplodia Tip-Blight. Spray at 10-13 fluid ounces per 100 gallons water. Apply as preventive or applied weekly under severe disease pressure.

U.S. PAT. NO. 4,673,687
E.P.A. REG. NO. 49538-2
E.P.A. EST. NO. 42705-MN-0

CONTENTS:
U.S. 8 Fluid Ounces
236 Milliliters

CONTENTS:
33.8 FL. OUNCE
ONE LITER

CONTENTS:
ONE U.S. GALLON
3.785 LITERS