

PM 22 34704-698

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US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (75-767) WASHINGTON, DC 20460	EPA REGISTRATION NO. 34704-698	DATE OF ISSUANCE SEP 13 1991
	TERM OF ISSUANCE conditional	
	NAME OF PESTICIDE PRODUCT Copper Hydroxide 4.5L	

**NOTICE OF PESTICIDE:**  REGISTRATION  REREGISTRATION  
 (Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

[ ]  
 NITRO-Phos [ Company  
 21100 [ Street  
 E. [ Port 667  
 [ City, CO 80632  
 ]

**NOTE:** Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

*[Faint, mostly illegible text, likely bleed-through from the reverse side of the page]*

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL <i>[Signature]</i>	DATE SEP 13 1991
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**BEST AVAILABLE COPY**

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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Cynthia Giles-Parker  
Product Manager (22)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

EPH 1/11/81 10:07

ACCEPTED  
with COMMENTS  
In EPA Letter Dated.

SEP 13 1991

Under the Federal Insecticide  
Fungicide, and Rodenticide Act  
amended, for the pesticide  
registered under EPA Reg. No. 34704-698

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CLEAN  
CROP

# COPPER HYDROXIDE 4.5 L

## Flowable Agricultural Fungicide

ACTIVE INGREDIENT:	BY WT.
Cupric Hydroxide .....	37.5%
INERT INGREDIENTS: .....	62.5%
TOTAL .....	100.0%

Contains 4.5 lbs. Cupric Hydroxide per gallon.

**DANGER—PELIGRO**  
KEEP OUT OF REACH OF CHILDREN

PRECAUCION AL USUARIO: Si usted no lee Ingles, no use este producto hasta que le etiqute haya sido explicado amplamente.

EPA REG. NO. 34704-

EPA EST. NO. \_\_\_\_\_

NET CONTENT \_\_\_\_\_ GALLONS

See Below For Additional Precautionary Statements

12159

EX. 1090

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER—PELIGRO

Corrosive. Causes irreversible eye damage. Wear goggles, face shield, or safety glasses. Harmful if swallowed, absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Do not apply this product in 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 area without protective clothing until spray has dried.

#### STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** Drink promptly a large quantity of milk, egg white, gelatin solution, or if these are not available, large quantities of water. Avoid alcohol. Call a physician or Poison Control Center.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**IF IN EYES:** Hold eyelids open and flush with water for 15 minutes. Get medical attention.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate use of gastric lavage.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not allow rinsate from cleaning of equipment or disposed material to enter surface or ground water.

#### STORAGE AND DISPOSAL

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

**STORAGE:** Do not store under conditions which might adversely affect the container or its ability to function properly. Such conditions include, but are not limited to, positioning of the container in storage, storage temperature, potential for crushing or damage due to stacking, and penetration of moisture.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate 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 puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. Do not burn. Stay out of smoke.

#### GENERAL INSTRUCTIONS

Use this product as noted below. This product is adaptable to spraying from all types of spray equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. For dilute, high volume sprays, use from 25 to 100 gallons of water per acre (GPA) for most vegetable crops, 400 to 800 GPA for fruit orchards and up to 1500 GPA as may be required for large citrus groves. For concentrate ground sprays, apply from 5 to 20 GPA for most vegetable crops and 25 to 100 GPA for fruit and nut crops. For aerial spraying, 3 to 15 GPA are commonly used. No additional surfactants are needed. Add this product slowly to a spray tank partially filled with water. Spreader-nozzles, insecticides, nutrients, etc. should be added last. Observe all cautions and limitations on label of all products used in mixtures.

The following specific instructions are based on general applications. The recommendations of the State Agricultural Extension Services should be closely followed as to timing, frequency and number of sprays per season.

#### DIRECTIONS FOR USE

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

#### REENTRY STATEMENT

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 area without protective clothing until spray has dried

(CONTINUED)

## COPPER HYDROXIDE 4.5 L, continued

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. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure.) When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

### ANGER.

Area treated with COPPER HYDROXIDE 4.5 L on (date of application). Do not enter without appropriate protective clothing until spray has dried. In case of accidental exposure see Statement of Practical Treatment.

## HOMEOWNER

1 level teaspoon of this product per gallon of water is equivalent to 1 pint per 100 gallons. Make application according to specific instructions given below for those crops where rates are given in pints/hundred gallons. (For example, 2 pints of this product per 100 gallons are equivalent to 2 level teaspoons of this product per gallon.)

## CROPS

**ALFALFA, *Cercospora* & *Leptosphaerulina* Leaf Spots.** Apply at 2½ pints per acre 10-14 days before each harvest or earlier if disease threatens. Apply with ground or aerial equipment. Spray injury may occur with sensitive varieties such as Lahontan.

**ALMONDS, *Coryneum* Blight (Shot Hole) & Blossom Brown Rot.** Use 2½ to 4 pints of this product per 100 gallons of water (300 to 400 GPA) in late dormant before foliage buds swell if frequent rainfall occurs. A second application should be made during the early bloom stage (popcorn). To avoid plant injury, do not use above rate after full bloom. **Bacterial Blast (*Pseudomonas*).** Use 4 to 5½ pints of this product per 100 gallons at dormant to early pin bud. For blast control in sprinkler irrigated orchards or where disease is severe, apply product sprays at ½ pint per 100 gallons at 2 week post-bloom intervals or just before sprinkling. Slight leaf injury may occur from post-bloom spray.

**APPLE, Anthracnose, European Canker, *Pseudomonas, Syringae*.** Apply before fall rains at 4-5½ pints per 100 gallons (300-400 GPA). Use on yellow varieties may cause discoloration. To avoid, pick before spraying. **Fireblight.** Apply at 2½-5½ pints/100 gallons of water as a full cover spray. Make application between silver-tip and green-tip. CAUTION: Phytotoxicity may occur from late application. (Discontinue use when green-tip is ½-inch.) **Crown or Collar Rot (*Phytophthora cactorum*).** Mix 5½ pints in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in fall after harvest each year. Do not use if soil pH is below 5.5 or copper toxicity may result. (EXCEPT CALIFORNIA)

**APRICOTS, *Coryneum* Blight (Shot Hole) & Blossom Brown Rot.** Apply at pre-bloom to full bloom using 2½ to 4 pints per 100 gallons (300-400 GPA). To avoid spray injury, do not apply after bloom.

**AVOCADOS, Scab.** Apply when bloom buds begin to swell at 2½ pints of this product per 100 gallons or 10½ to 13½ pints per acre depending on equipment. Continue application at monthly intervals for 5 to 6 applications. Follow recommendations of State Agricultural Experiment Stations.

**BANANAS, Sigatoka.** Apply by air at 2½ pints per acre in 3 gallons of water containing 0.5 gallons agricultural oil. Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods. **Black Pitting.** Apply at 5½ pints per 100 gallons directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after emergence.

**BEANS, Bacterial Blight (Halo & Common).** For protective sprays, apply first application when plants are six inches high. Apply on 7-14 day schedule depending on local conditions. Use 1½ to 4 pints per acre depending on disease severity.

**BLACKBERRIES, (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalis & Thornless Evergreens), Leaf & Cane Spot.** Apply delayed dormant spray after training in spring at 5½ pints plus 1 quart superior-type oil per 100 gallons. Apply again in late spring at 2½ pints plus 1 quart superior type oil per 100 gallons. Make fall spray application after harvest using 5½ pints plus 1 quart superior type oil per 100 gallons.

**BROCCOLI, BRUSSELS SPROUTS, CABBAGE, & CAULIFLOWER, Downy Mildew.** Apply ½ to 1½ pints in a minimum of 25 GPA at 7 day intervals. (CABBAGE ONLY), **Black Rot (*Xanthomonas*) & Black Leaf Spot (*Alternaria*).** Apply at 2½ pints per acre in a minimum of 25 GPA at 7 to 10 day intervals. (Caution: A slight reddening of older leaves may occur on broccoli, and a slight flecking of wrapper leaves may occur on cabbage at the 2½ pints rate.) For control of diseases of these crops, begin applications after transplants are set in the field, or shortly after emergence of field-seeded crops or when conditions favor disease development.

**CACAO, Black Pod.** Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates from 2½ to 8 pints per acre depending on disease severity. For drier areas, where 2 to 4 applications are recommended during critical infection periods and at long intervals, use 8½ to 11½ pints per acre, according to disease incidence and planting density.

**CANTALOUPE, HONEYDEWS, & MUSKMELONS, Downy Mildew.** Apply weekly at 2½ pints per acre before disease appears.

**CARROTS, Carrot Blight (*Cercospora*).** When disease threatens, apply 2½ pints per acre at 7 to 14 day intervals depending on disease severity.

**CELERY, Early, Late & Bacterial Blights.** Apply as soon as plants are first established in the field at 2½ pints per acre, then every 5-7 days depending on severity and weather. One to two quarts of a suitable agricultural spray oil per acre may be used as spreader-sticker.

**CHERRY, Dead Bud (*Pseudomonas syringae*) & *Coryneum* Blight (Shot Hole).** Apply 8 pints plus 1 pint superior-type oil per 100 gallons in October (before heavy fall rains) and again in January in orchards where the disease is severe, a spray should also be applied in August. **Brown Rot Blossom Blight.** For adequate control apply 2½ to 4 pints per 100 gallons as a full cover spray at popcorn and full bloom.

**CITRUS, Melanose, Scab, Greasy Spot & Pink Pitting.** Apply as pre-bloom and post bloom sprays. Use 1 to 2 pints of this product per 100 gallons, depending on disease severity. May be used in concentrate sprays at equivalent rates. For aerial application use 8 pints of this product per 10 gallons per acre. **Brown Rot.** Use ½ to 1½ pints per 100 gallons as dilute spray or at equivalent rate as concentrate spray depending on severity of disease. Begin application in fall before or just after first heavy rains. Apply to skirts of trees to a height of at least 4 feet. Apply also to bare ground one foot beyond skirt. (California only. In areas subject to copper injury, add ½ to 1 pound of high quality lime per 1½ pints of this product.)

**COFFEE, Iron Spot (*Cercospora coffeicola*) & Pink Disease (*Corticium salmonicolor*).** Apply at 2½ pints per acre as a concentrate of dilute spray. Begin treatment at start of wet season and continue at monthly intervals for three applications. **Leaf Rust (Brazil).** Apply at 4½ to 7½ pints per acre for average density plantations. High density plantations may require 9½ to 10½ pints per acre. Make application from September to March depending on altitude and local recommendations. Apply at 3-4 week intervals depending on disease severity and rainfall conditions.

**CRANBERRY, Fruit Rot.** Apply at 10½ pints per acre beginning in late bloom. One or two additional applications made at 10 to 14 day intervals may be required, depending on disease pressure. Follow the advice of the State Agricultural Extension Service.

**CUCUMBERS, Angular Leaf Spot & Downy Mildew.** Apply weekly once the plants begin to vine. Use at 2 to 2½ pints per acre.

**CURRENTS & GOOSEBERRY, Leaf Spot.** Make three applications of this product at 13½ pints per acre, starting after harvest, before bloom and after petal fall.

**EGGPLANT, *Alternaria* Blight, Anthracnose, *Phomopsis*.** Use 2½ pints of this product per acre before disease appears. Repeat at 7 to 10 day intervals. (EXCEPT CALIFORNIA)

**FILBERTS, (Bacterial Blight.)** Apply 5½ to 8 pints plus 1 pint superior-type oil per 100 gallons in late August or early September. In seasons of heavy rainfall, apply another spray when three-fourths of the leaves have dropped.

**GRAPES, Black Rot, Powdery Mildew & Downy Mildew.** Apply at 2½ pints of this product plus 2-6 pounds hydrated lime per acre as a dilute or concentrate spray. Use this product for the last one or two late summer applications following early season application of another fungicide. Follow State schedule for exact timing. (Caution: Slight to severe foliage injury may occur on copper-sensitive varieties such as Concord, Delaware, Niagara, and Rosette.)

**HOPS, Downy Mildew.** Apply 2½ pints as a fungicide crown treatment (after pruning but before training) as needed. After training, additional fungicide treatments are needed at about 10 day intervals. Discontinue use 2 weeks before harvest.

**LETTUCE, Downy Mildew.** Apply 1½-2½ pints of this product per acre. Begin treatment when disease first appears and repeat every 7-10 days as needed to suppress disease.

**MANGO, (Florida) Anthracnose.** Apply monthly after fruit set until harvest at 2½ pints of this product per 100 gallons or 10½ to 13½ pints per acre depending on equipment. Consult Extension Service for State recommendations.

**OLIVES, (California) Peacock Spot.** Make first application at 2½ to 4 pints per 100 gallons or at 10½ to 16 pints per acre depending on equipment before winter rains fall. A second application in early spring should be made if disease is severe.

**ONION, Purple Blotch & Downy Mildew.** Apply 2½ pints of this product per acre when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals.

**PEACHES & NECTARINES, Leaf Curl & *Coryneum* Blight (Shot Hole).** Dormant application, apply at leaf fall. Dilute. Apply 2½ to 5½ pints per 100 gallons (minimum of 10½ pints/acre). Use 2½ pints per acre when rainfall is very heavy and disease pressure is high. Concentrate. Apply at equivalent rates in approximately 100 gallons of water. May be used with agricultural spray oil. **Brown Rot Blossom Blight.** Apply at 2½ to 4 pints per 100 gallons as a full cover spray at pink bud. (Application at this time also affords some control of leaf curl and *Coryneum* Blight.) **Bacterial Spot.** Dormant application, apply at 2½ pints per 100 gallons. Postbloom, apply ½ pint per 100 gallons at first and second cover sprays. Do not spray later than three weeks prior to harvest. Do not use at rates above those recommended. (Caution: Slight defoliation and spotting of leaves may occur from use in cover sprays.)

**PEANUTS, *Cercospora* Leaf Spot.** Begin spraying 40-45 days after planting or when disease symptoms appear. Make ground or aerial application at 2 to 4 pints per acre. For aerial application use 3 to 10 gallons of water. Continue applications at 10-14 day intervals. Use sufficient water to get adequate coverage. This product may be tank mixed with Flowable Sulfur Products.

**PEARS, Fire Blight.** Apply at ½ pint per 100 gallons or 1½ pints per acre at 5 day intervals throughout bloom period. ***Pseudomonas* Blight.** Apply this product before fall rains at a rate of 4-5½ pints per 100 gallons (300-400 GPA) and again at dormant before spring growth starts. Excessive dosage may cause fruit russet.

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## Copper Hydroxide 4.5 L, continued

**PEAS, Powdery Mildew.** Begin spray treatment when disease symptoms first appear. Use at 2-4 pints per acre according to disease severity. Repeat applications at weekly intervals.

**PEPPERS, Bacterial Spot.** When disease threatens, apply 2½ to 4 pints per acre in sufficient water for adequate coverage at 7 to 14 day intervals depending on disease severity.

**POTATOES, Early & Late Blight.** Apply at 7-10 day intervals starting when plants are six inches high until two weeks before harvest. Use 1½ to 2 pints per acre in those locations where disease is light and up to 4 to 5½ pints per acre where disease is more severe.

**PUMPKIN & SQUASH, Powdery Mildew.** Begin applications when plants are 3 weeks old or when first disease symptoms appear. Use at weekly intervals at 2-4 pints per acre depending on disease severity.

**STRAWBERRIES, Leaf Spot & Leaf Blight.** Apply at 2½ to 4 pints in 100 gallons per acre. Begin application when plants are established and continue on a weekly schedule throughout season. Discontinue applications if signs of phytotoxicity appear.

**SUGAR BEETS, Cercospora Leaf Spot.** Start spray when disease threatens and continue for 4 to 5 applications. Spray at 10-14 day intervals depending on weather conditions at 2½ to 6½ pints per acre depending on disease severity. Addition of suitable agricultural spray oil is recommended at 2 quarts per acre.

**TOMATOES, Early Blight.** When disease threatens, apply at 2½ to 4 pints per acre at 7-10 day intervals. **Bacterial Speck.** Apply at 2½ pints per acre at 10-30 day intervals beginning when the disease threatens. Use more frequent applications when disease pressure is high. **Bacterial Spot.** When disease threatens, apply at 2½ to 5½ pints per acre at 7-10 day intervals, more frequently when disease is severe. May be combined with maneb or mancozeb. Do not apply within five days of harvest.

**ALNUT, Walnut Blight.** Apply first spray at early pre-bloom when catkins are partially expanded. Make three additional applications during bloom and early nutlet stages at 7-10 day intervals. Additional applications may be necessary when frequent rainfall occurs. Dilute: Apply 2½ pints per 100 gallons of water (minimum of 10½ pts/acre). Concentrate: Apply at equivalent rates in 50-100 gallons water per acre. One pint of summer oil emulsion may be added per 100 gallons of spray. Do not apply more than 16½ pints per acre per application.

**WATERMELON, Anthracnose & Downy Mildew.** Apply as soon as plants become established and at weekly intervals thereafter. **Anthracnose.** Use at 2½ pints per acre. **Downy Mildew.** Use at 2-4 pints per acre, according to disease severity.

**WHEAT & BARLEY, Septoria Leaf Blotch & Helminthosporium Spot Blotch.** Apply 2 to 2½ pints per acre. Make first application at early boot stage and follow with second application at early head stage.

## ORNAMENTALS

**LIVE OAK, Ball Moss.** (Texas only). Apply at 8 pints per 100 gallons of water, in spring after heavy rain, using 1.5 gallons of spray per foot of tree height. Make sure to wet tufts thoroughly. A second application may be required after 12 months.

**PHLODENDRON, Bacterial Leaf Spot.** Apply weekly before disease appears at 2 pints of the product plus manufacturer's recommended amount of mancozeb per 100 gallons of water.

**SYCAMORE, Anthracnose.** Make two applications using 2½ to 4 pints per 100 gallons as a full cover spray. Make first application at bud crack and second application 7-14 days later at 10% leaf expansion.

To the following crops apply this product at 1½ pints per 100 gallons as a full cover spray beginning at first sign of disease. Repeat at intervals of 7 to 14 days depending on rainfall and disease severity.

**ARALIA, Xanthomonas & Cercospora Leaf Spots, Alternaria**

**AZALEA,\* Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback & Powdery Mildew**

**BEGONIA, Xanthomonas Leaf Spot, Anthracnose**

**BULBS (EASTER LILY, TULIP, GLADIOLUS), Botrytis Blight**

**CARNATION,\* Alternaria Blight, Pseudomonas Leaf Spot & Botrytis Blight**

**CHRYSANTHEMUM,\* Septoria Leaf Spot & Botrytis Blight**

**COTONEASTER, Botrytis Blight**

**EUONYMUS, Botrytis Blight, Anthracnose**

**IVY,\* Xanthomonas Leaf Spot**

**PACHYSANDRA, Volvella Leaf Blight**

**PERIWINKLE, Phomopsis Stem Blight**

**PYRACANTHA, Fireblight, Scab**

**ROSE,\* Powdery Mildew, Black Spot**

**YUCCA (ADAMS NEEDLE), Cercospora & Septoria Leaf Spots**

\* On some varieties a discoloration may occur on foliage or blooms. To prevent residues on commercial plants, do not spray just before selling season.

**CAUTION:** Phytotoxicity may occur on certain varieties. Apply on a few plants at the recommended rate and observe for a few days to see if phytotoxicity will occur.

## WARRANTY STATEMENT

Platte warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of the 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 control of Platte. In no case shall Platte be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Platte makes no warranties of Merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

FORMULATED FOR  
PLATTE CHEMICAL CO.  
160 SO. MAIN STREET  
FREMONT, NEBRASKA 68025

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