



## PHYSAN 20

DISINFECTANT • SANITIZER •  
DEODORIZER • FUNGICIDE •  
ALGAEICIDE • VIRUCIDE

### INSERT #1

EPA REG. #55364-5



MARIL PRODUCTS, INC.  
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## HARD SURFACES/EXTERIORS

### Algae-Walkways

For heavy infestation, spray or swab. Let stand for an hour or more. Brush and wash away dead algae. Soak area again with **PHYSAN 20** solution. Do not rinse. This product will inhibit the growth of algae on walkways. Allow to dry on surface, and repeat application when algae growth returns.

USE: 1 tablespoon **PHYSAN 20** concentrate in 1 gallon of water.

### Algae Control - Greenhouse Glass

Spray or swab surfaces. Let stand for one hour or more or until the algae visibly begins to change to a lighter color. Wash off dead algae with water. Spray clean surfaces again with the **PHYSAN 20** solution.

USE: 1 teaspoon **PHYSAN 20** concentration per gallon of water.

### Disinfecting Cutting Tools

Soak cutting edge of tool for 10 minutes in **PHYSAN 20** solution before use to kill such diseases as Botrytis, Root Rot, Stem Rot and Tobacco Mosaic Virus (TMV). Use wet tool on plants. Dry and oil tools at the end of work.

Use: 1 teaspoon **PHYSAN 20** concentrate per 1 quart water.

### Mildewstat - Table Tops, Floors

To control mold and mildew on pre-cleaned hard, non-porous surfaces (such as floors, walls, table tops). Apply solution with a cloth,

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### Directions for Use 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, decantamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE). The requirements only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow entry into the treated areas during restricted entry interval (REI) of 12 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.

### USAGE CONVERSION TABLE

TABLESPOONS	FLUID OUNCES
1	1/2
2	1
3	1-1/2
4	2

This chart illustrates tablespoons and their fluid ounce equivalents. One tablespoon is equal to three (3) teaspoons.

map or sponge, making sure to wet all surfaces completely. Let air dry. Prepare a fresh solution for each use. Repeat application at weekly intervals or when mildew growth reappears.

USE: 3 tablespoons of **PHYSAN 20** concentrate in 2 gallons of water.

### Pots, Flats and Flower Buckets

Used pots and flats should be brushed or washed, then soaked in **PHYSAN 20** solution for 10 minutes before using to kill such diseases as Anthracnose, Blight, Crown Rot, Mildew, Root Rot and Rusts.

USE: 1 tablespoon **PHYSAN 20** concentrate in 1 gallon of water.

### Work Area and Benches

Before each work period, spray or swab working surfaces. Spray or swab again after each plant is completed to kill such diseases as, Botrytis, Crown Rot, Downy Mildew, Root Rot, etc.

USE: 1 tablespoon **PHYSAN 20** concentrate in 1 gallon of water.

## ADULT PLANTS/HOUSE PLANTS

### House Plants

To control algae and cross contamination in terrariums, bubbles, etc., wipe inside of glass with paper towel dampened with **PHYSAN 20** solution.

USE: 1 teaspoon **PHYSAN 20** concentrate in 1 gallon of water.

## BIRD BATHS/SWIMMING POOLS/FOUNTAINS/WATER DISPLAYS/DECORATIVE POOLS

### Algae Control for Bird Baths, Fountains, Water Displays, and Decorative Pools

#### DO NOT USE WITH FISH!

Clean to remove algae growth prior to filling bird bath by spraying all exposed surfaces with **PHYSAN 20** solution. Allow to air dry; brush off the dead algae.

USE: 2 tablespoons of **PHYSAN 20** concentrate in 2 gallons of water to clean.

Initial Dose: Add 1 teaspoon **PHYSAN 20** concentrate per 52 gallons of water (1 fluid ounce **PHYSAN 20** per 312 gallons of water) to achieve a concentration of 5 ppm.

Weekly Dose: Add 1 teaspoon **PHYSAN 20** concentrate per 104 gallons of water each week to maintain a concentration of 2-3 ppm.

#### Algae Control - Swimming Pools

Initial dose should be 2 quarts **PHYSAN 20** concentrate per 50,000 gallons of water (or 13 fluid ounces per 10,000 gallons of water) followed by cleaning out of settled algae next day and retreatment at the same dosage. This is repeated until the pool is clear of visible algae. Then 1 pint of **PHYSAN 20** concentrate per 50,000 gallons of water (or 3 1/5 fluid ounces per 10,000 gallons of water) is used every 5-7 days to maintain control. Apply **PHYSAN 20** along edges of the pool. After adding the **PHYSAN 20**, wait 30 minutes before using the pool to allow **PHYSAN 20** to be distributed evenly throughout the pool. At the

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spoons of **PHYSAN 20** concentrate in 1 gallon of water for 5 minutes. Fill the flask containing the seed or seedlings with enough **PHYSAN 20** solution to completely cover the seeds/seedlings. Drain the **PHYSAN 20** solution off the seeds/seedlings before planting. Use a fresh solution of **PHYSAN 20** for each flask.

#### Seedlings - Damping Off (ornamental plants only)

Make a solution of 1-1/2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water. Soak seedlings in **PHYSAN 20** for 5 minutes. Use a soak container large enough to completely immerse one flask of seedlings at a time. Change the solution daily or more often if solution becomes visibly dirty.

If a garden soil is used for planting seedlings, completely saturate the soil in **PHYSAN 20**. Place the soil in a pot or tray and add enough **PHYSAN 20** solution to completely cover the soil. Let the solution drain through the soil or pour off excess.

USE: 1-1/2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

**PHYSAN 20** solution is effective in stopping the spread of damping off when sprayed on seedlings. Spray seedlings so that all surfaces are thoroughly wet.

USE: 2 tablespoons of **PHYSAN 20** concentrate in 3 gallons of water or 2 tsp. **PHYSAN 20** concentrate in 1 gallon of water.

#### Seedlings - Downy Mildew (Ornamental Plants only)

Most common on seedlings. The fungus sporulates on the lower surface of leaves as a white, sparse downy growth. The disease can cause the death of aerial plant parts. Spray seedlings so that all surfaces are thoroughly wet with **PHYSAN 20** solution at 5-day intervals until under control.

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beginning of the swimming season or after a storm, remove branches, leaves and other foreign material before treating the pool with **PHYSAN 20**.

#### Evaporative Coolers - Algae, Fungus and Odors

Controls algae and slime-forming fungi on cooler pads and certain fungal plant pathogens that may carry over in the cooler as well as bacterial odors.

USE: 1 teaspoon **PHYSAN 20** concentrate in 15 gallons of water every other week.

## SEEDS/SEEDLINGS/CUT FLOWERS

### Cut Flowers in Containers, Tubes, and Decorative Vases - Bacterial Stem Plugging.

To eliminate stem plugging (which restricts uptake of water) and to control bacteria and fungi (which create ethylene gas, a cause of petal drop), flower spikes should be hardened by keeping the stems in **PHYSAN 20** solution.

USE: 1 teaspoon of **PHYSAN 20** concentrate in 1 gallon of water.

### Plant Cuttings - Begonia, Chrysanthemum, Fuchsia, and Geranium.

For controlling Crown Gall, Gray Mold Leaf Spots, and Powdery Mildew, soak completely immersed cuttings 2-5 minutes in 1-1/2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water. Plant in compost completely saturated in **PHYSAN 20** solution.

USE: 1-1/2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

### Seeds and Seedlings - Damping Off

Treat seeds and seedlings by soaking in a solution of 1-1/2 tea-

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USE: 2 tablespoons of **PHYSAN 20** concentrate in 3 gallons of water.

## TREES/LAWN/TURFGRASS

### Flowering Dogwood (cornus florida) - Anthracnose, Leaf Blights, Leaf Spots

Small circular, dirty yellow spots with reddish purple margins on flowers, leaves and young shoots. Spray 4 times — when flower buds begin to open; as soon as flower bracts have fallen; 4 weeks later; and in late Summer after flower buds are well formed. If possible, spray just before rainy periods.

USE: 2 tablespoons of **PHYSAN 20** concentrate in 3 gallons of water.

*This usage not approved in the State of California.*

### Trees (Ash, Sycamore, etc.) Anthracnose

Spray upper and underside of leaves and twigs until thoroughly wet. A large tree requires 50-60 gallons of spray per treatment for adequate coverage. Treat tree with three applications: as buds start to swell in April; as leaves start to expand; and as leaves are about 3/4 grown.

USE: 2 tablespoons **PHYSAN 20** concentrate in 3 gallons of water.

*This usage not approved in the State of California.*

### Lawn - Grass - Dichondra - for Control of Certain Fungal Diseases and Rusts

1 pint of concentrate diluted treats 6,400 square feet. Controls the following fungal diseases: Algae, Dollar Spot, Fading-Out, Fairy Ring, Leaf Spot, Rust, Sclerotium rolfsii, Toad Stools. Spray with **PHYSAN 20** solution at a rate of 5 gallons solution per 1,000

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square feet of turf. Be sure all surfaces or grass are treated and the area is thoroughly soaked with solution. When disease reappears, repeat application.

USE: 1 tablespoon **PHYSAN 20** concentrate in 1 gallon of water  
*This usage not approved in the State of California.*

### SPECIFIC PLANT APPLICATIONS

#### **Aucuba, Dahlia, Fuchsia, Geranium, Gladiolus, Peony, Pieris - Botrytis, Downy Mildew, Gray Mold, and Rusts**

Downy mildew primarily affects new growth with symptoms of soft decay of flowers, leaves or stems followed by a covering of downy gray mold. Control of the disease consists of quick removal of dead plant parts and application of **PHYSAN 20** at the first signs of disease. For Botrytis, spray buds and blooms lightly 2 to 3 times a week using a fine mist. For Rust, apply at 7-14 day intervals during wet periods starting in early Summer.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

*This usage on Dahlia, Geranium, Gladiolus not approved in the State of California.*

#### **Begonias, Ferns and Gesneria (Corytholoma, Isoloma, Allopictus, Episcia, Trichosporum)- Bud Rot, Gray Mold, Leaf Spots, and Shoot Rot.**

All phases of culture. Remove all plant refuse or dead leaves. Garden clean-up is important in control. Spray **PHYSAN 20** solution before the buds open. Then spray when blossom petals have fallen. Spray when 3/4 of the blossom petals have fallen. Spray again two weeks after petal fall.

USE: 1 teaspoon of **PHYSAN 20** concentrate in 1 gallon of water.

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USE: 2 tablespoons **PHYSAN 20** concentrate in 3 gallons of water.

#### **Carnations - Canker Rot, Carnation Rust, Crown Rot, Gray Mold Rot, Leaf Spots, Root Rot, and Stem Rot.**

For Rust, completely immerse cuttings in **PHYSAN 20** solution before planting. For Gray Mold, apply **PHYSAN 20** solution 1-2 times just before bud bloom. Apply a light mist spray as the flowers are opening. Carefully collect and burn infected buds, blossoms, and stems.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

*This usage for control of Crown Rot, Rust, and Gray Mold on Carnations not approved in the State of California.*

#### **Crassula, Kalanchoe, and Sedum - Crown Gall, Crown Rot, and Root Rot.**

Destroy infected plants or plant parts and drench the remainder with **PHYSAN 20** solution. Spray plants weekly to assure solution getting around and in the base of leaves.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

#### **Fuchsia, Gardenia, Geranium, Heliotrope - Bud Rot, Gray Mold and Stem Rot.**

At the first sign of disease, pick off and burn infected leaves and blossoms; spray, mist, or fog weekly as needed.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

*This usage on Geranium for Gray Mold not approved in the State of California.*

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#### **Bulbs - Daffodil, Easter Lilies, Gladioli, Hyacinth, Iris, Narcissus, and Tulips**

Pre-storage and pre-planting treatments: Treat the corms and bulbs immediately after they are "cleaned" and treat again immediately before planting by soaking them 10 minutes in **PHYSAN 20** solution to control fusarium basal rot. Air dry.

USE: 1 tablespoon **PHYSAN 20** concentrate in 1 gallon of water.

#### **Cactus - Bacterial Leaf Spot, Root Rot, Top Rot**

For rotting of underground parts by fungi and bacterial leaf spot or rot of the tops, sterilize seeds and disease-free cuttings by dipping in **PHYSAN 20** solution for 5 minutes before planting. Spray at 10-14 day intervals.

USE: 2 tablespoons of **PHYSAN 20** concentrate in 3 gallons of water.

#### **Cactus - Slimy Collar Rot**

Just before planting, dip entire plant in **PHYSAN 20** solution.

USE: 2 teaspoons **PHYSAN 20** concentrate in 1 gallon of water.

#### **Calendulas, China Asters, Chrysanthemums, Crape Myrtle, Dahlias, Lilac, Live Oak - Powdery Mildew**

Spray with **PHYSAN 20** solution when symptoms appear. Spray upper and lower surface of leaves and branches with **PHYSAN 20** solution until thoroughly wet. Spray when buds burst in Spring and repeat in 2 weeks. Spray with **PHYSAN 20** solution every two weeks during mildew season. Also, spray Live Oaks at bud break and again in April.

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#### **Hawthorn (Crataegus) - Leaf Blights**

After a very wet Spring, small reddish brown spots appear on the upper surfaces of leaves. When spots are numerous, leaves drop. Make 3 spray applications: First, as soon as the leaves emerge from the buds; then when leaves are half grown; and again when fully grown.

USE: 2 tablespoons of **PHYSAN 20** concentrate in 3 gallons of water.

#### **Hawthorn, Hollyhock, Snapdragons - Rust**

Spraying for protection should begin with the development of new leaves following Winter clean-up or dormancy. Spraying should begin before the onset of the rainy season. Be sure the undersides of infected leaves are covered by **PHYSAN 20** spray solution. For hollyhocks, apply at weekly intervals. Start as soon as growth begins. Repeat applications in late Summer. For snapdragons, collect and burn the tops in the Fall. Avoid sprinkling the foliage while indoors. Apply **PHYSAN 20** solution at 7-10 day intervals. Start when plants are set in the garden.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

#### **Iris - Botrytis, Crown Rot of Iris, Gray Mold, Rot on Rhizomatous Iris**

Treat all new rhizomes before planting with **PHYSAN 20** solution. Submerge rhizomes and 3 to 4 inches of leaves for 30 minutes. Plant at once (while still wet with **PHYSAN 20** solution).

USE: 2 tablespoons of **PHYSAN 20** concentrate in 3 gallons of water.

*This usage to control Botrytis and Gray Mold not approved in the State of California.*

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### **Iris - Botrytis Leaf Spots**

Circular spots, yellowish, then light brown with red border. Spray weekly while plants are growing.

USE: 2 teaspoons **PHYSAN 20** concentrate in 1 gallon of water.

### **Orchids - Adult Plants**

Spray anytime disease other than rot (see below) is evident. Spray once per month as preventive maintenance. Soak compost when fungus is evident.

USE: 2 teaspoons **PHYSAN 20** per gallon of water.

### **Orchids - Botrytis**

During cool damp weather, spray plants, flowers and under benches at first sign of the spotting on flowers. Normally weekly spray will greatly reduce or eliminate the botrytis spotting.

USE: 1 teaspoon **PHYSAN 20** per 3 gallons of water.

### **Orchids - Crown Rot - Phaelenopsis**

Spray plants weekly to assure solution getting around and in base of leaves.

USE: 1 teaspoon **PHYSAN 20** per gallon of water.

### **Orchids - Dividing Plants**

Remove compost, then soak plant for 2-5 minutes in **PHYSAN 20** solution. Operate with wet hands and cutting tools. After division and root trim, soak divisions in **PHYSAN 20** solution 2-5 minutes. Pot in compost dampened with **PHYSAN 20** solution.

USE: 1 Tablespoon **PHYSAN 20** per gallon of water.

### **Orchids - Rot (such as Erwinia)**

Remove compost from plant, then soak entire plant 10 minutes or more. Cut away all rot with treated tool. Soak plant wounds again for 10 minutes. Repot in **PHYSAN 20** soaked compost.

USE: 1 Tablespoon **PHYSAN 20** per gallon of water.

### **Palms - Heart Rot and Penicillium Leaf Base Rot**

At the first sign of rot, completely fill cup, or "heart" formed by palm branches at top center of plant. Repeat every 7 days until controlled.

USE: 2 tablespoons **PHYSAN 20** concentrate in 3 gallons of water.

### **Roses - Brown Canker**

Use regular spraying. Application should begin in early Spring as soon as new growth starts and should be made often enough to provide protection throughout the rainy periods and to keep the new growth covered. On the average, an application once a week will be needed from early Spring until plants are dormant.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

### **Roses - Black Spot, Powdery Mildew, Rusts, Stem Gall**

Spray with **PHYSAN 20** solution when symptoms appear. Spray upper and lower surface of leaves and branches with **PHYSAN 20** solution until thoroughly wet. Spray with **PHYSAN 20** solution several times, 7 to 10 days apart.

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USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.  
*This usage for control of Rust not approved in the State of California.*

### **Rubber Plant - Anthracnose on Leaves and Stems, Crown Gall on Stems**

At the first sign of disease, pick off and burn infected leaves, spray, mist or fog weekly with **PHYSAN 20** solution as needed.

USE: 1 teaspoon of **PHYSAN 20** concentrate in 1 gallon of water.

### **Saintpaulia (African Violets) - Bud Rot, Crown Rot, Downy Mildew, Gray Mold Rot (Botrytis), Powdery Mildew, Root Rot.**

Dip plant and pot in **PHYSAN 20** solution. Spraying is okay, but complete coverage of all surfaces is important. Spray every 10 days until controlled.

USE: 1 tablespoon **PHYSAN 20** concentrate in 4 gallons of water.

### **Snapdragons - Anthracnose, Downy Mildew, Phyllosticta Blight, Powdery Mildew, Rusts, Stem Rot, Wilts.**

Spray with **PHYSAN 20** solution when symptoms appear. Spray upper and lower sides of leaves until thoroughly wet, every 7-10 days. Collect and burn the tops in the Fall.

USE: 2 teaspoons of **PHYSAN 20** concentrate in 1 gallon of water.

**DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM!**