

# Sil-MATRIX<sup>®</sup> LC

FUNGICIDE/MITICIDE/INSECTICIDE

For use on vegetables, fruits, nuts, vine crops, field crops, ornamentals and turf for control of fungal diseases, and control of spider mites, aphids and whiteflies.



CAN BE USED IN ORGANIC PRODUCTION



**ACTIVE INGREDIENT:**

Potassium silicate ..... 29%

**OTHER INGREDIENTS:** ..... 71%

**TOTAL:** ..... 100%

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Refer to inside of label booklet for additional precautionary information and Directions for Use.

**MANUFACTURED BY:**

Certis USA LLC  
9145 Guilford Road, Suite 175  
Columbia, MD 21046

**CERTIS**

**EPA Reg. No. 70051-127**

**EPA Est. No.**

**Lot Number:**

**Item Code:**

**Package Code:**

**Net Contents:** \_\_\_\_\_

**ESL20210226**

**Ver20240617**

This is a Specimen Label. It may not reflect the most-recent approved label for use in your state. Always refer to the label on the product packaging for approved use instructions. Please contact your Certis sales representative for more information.

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p><b>Hotline Number:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-255-3924 day or night, for emergency medical treatment information.</p>	

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Causes moderate eye irritation. Do not get in eyes or on clothing. Wear goggles or face shield when handling concentrate. After product is diluted in accordance with the directions for use, goggles or face shield are not required. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear appropriate personal protective equipment (PPE).

**PERSONAL PROTECTIVE EQUIPMENT  
*Applicators and other handlers must wear:***

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves
- Goggles or face shield when handling undiluted concentrate

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Remove clothing/PPE immediately if pesticide gets inside.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**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 contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

In the event of an in-transit environmental release or spill of this product, that may endanger the environment, call Chemtel at 1-800-255-3924.

## DIRECTIONS FOR USE

It is a violation of Federal law to apply 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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is attached.**

### 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 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 4 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
- Chemical-resistant gloves made of any waterproof material
- Goggles or face shield when handling undiluted concentrate
- Socks and Shoes

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated area until sprays have dried.

## GENERAL USE INFORMATION

Sil-MATRIX® LC is a broad spectrum preventative fungicide recommended for agricultural crops, fruits, nuts, vines, turf and ornamentals. Optimum disease control is obtained when the fungicide is applied on a regularly scheduled preventative spray program. The product also provides control of mites, aphids, and whiteflies. Optimum performance is achieved using a sufficient volume of water to insure complete coverage of all stems and foliage.

For use on Ornamental Turf Lawns (Residential, Industrial and Institutional), Parks, cemeteries, Athletic Fields and Golf Courses (Fairways, Aprons, Tees, and Roughs), and similar turf areas. Also for use on Sod Farms.

Since all combinations or sequences of pesticide applications including surfactants and adjuvants have not been tested, before wide spread application, test a small area to be sprayed first to make certain that no phytotoxicity occurs.

Avoid contact with glass. Remove promptly from glass surfaces. Read the entire label before using Sil-MATRIX® LC. Consult your State Agricultural Experimental Station or Extension Service Specialist for additional information on application timing, rates and any additional requirements or restrictions.

#### MIXING INSTRUCTIONS:

Be sure the sprayer is clean and not contaminated with other materials prior to use. When using an agitated spray tank fill tank 1/2 to 3/4 full with clean water and start agitation. Be certain that the agitation system is working properly. With the agitator running add the required amount of Sil-MATRIX® LC to the tank. If tank mixing with other materials, add them to the tank and continue agitation. Continue filling tank with the remainder of the water. Agitate until mixed thoroughly and avoid excessive foaming. Mix as needed; do not store diluted material.

#### COMPATIBILITY:

Sil-MATRIX® LC is compatible with most commonly used agricultural pesticides. If compatibility is in question, use the compatibility jar test before mixing a whole tank. Dilute the product to its use rate and then while stirring add the other components in the appropriate amounts. If precipitation, gelation, or sedimentation occurs, do not use the combination of pesticides. Because of the wide variety of possible combinations that can be encountered, observe all precautions and limitations on the label of all products used in mixtures.

#### APPLICATION INSTRUCTIONS:

Sil-MATRIX® LC is a broad spectrum pesticide for control of the fungal disease powdery mildew, and control of mites, aphids, and whiteflies on vegetables, fruits, nuts, vine crops, agronomic crops, and ornamentals; for control of gray mold rot (*Botrytis cinerea*) on blueberry; for suppression of Asian soybean rust on soybean, and for suppression of gray leaf spot, brown patch, dollar spot, and snow mold on turf.

Rate of application is variable according to pest pressure, timing of sprays and plant stage of growth. Use lower rates under light to moderate pest pressure; higher rates under heavy pest pressure and for mite control. Arid climates generally require higher rates.

**For all crops, apply Sil-MATRIX® LC at a volume to volume concentration of 0.25% to 1% spray solution, unless otherwise specified.** For example, 1-4 quarts per 100 gallons of water. See Dilution Table for other volumes. Apply on a preventative schedule for disease control. Begin applications when environmental conditions are conducive to disease development. Repeat applications no sooner than every 7 days. When conditions are conducive for rapid disease development, it is recommended that the product be used in a rotational program with other registered fungicides. For mite and insect control, begin applications when pests first appear and repeat applications as necessary to maintain control, but no sooner than every 7 days. For best results, apply Sil-MATRIX® LC before leaf hardening.

**For maximum results, use a high analysis non-ionic surfactant such as No-Foam A at recommended label rates.**

DILUTION TABLE FOR FOLIAR APPLICATIONS (20-250 gallons per acre)				
Gal Water	Quarts Sil-MATRIX® LC 0.25% Sol.	Quarts Sil-MATRIX® LC 0.5% Sol.	Quarts Sil-MATRIX® LC 0.75% Sol.	Quarts Sil-MATRIX® LC 1% Sol.
20	0.2 qt	0.4 qt	0.6 qt	0.8 qt
40	0.4 qt	0.8 qt	1.2 qts	1.6 qts
50	0.5 qt	1 qt	1.5 qts	2 qts
100	1 qt	2 qts	3 qts	4 qts
150	1.5 qts	3 qts	4.5 qts	6 qts
200	2 qts	4 qts	6 qts	8 qts
250	2.5 qts	5 qts	7.5 qts	10 qts

qt(s) = quarts Gal = gallons

**For fruit, nut and vine crops:** apply 0.25% to 1% solution (1-4 quarts Sil-MATRIX® LC /100 gal.) in 50 to 250 gallons finished spray per acre.

Specific Use Restrictions:

1. Apply up to the day of harvest (0-day PHI)
2. Do not apply more than 10 quarts per acre (7.5 lb ai/a) per application.
3. Do not apply more than 20 gallons per acre (60 lb ai/a) per season.
4. Do not make post-harvest applications.

**For vegetable crops and other agronomic crops:** apply 0.25% to 1% solution (1-4 quarts Sil-MATRIX® LC /100 gal.) in 50 to 250 gallons finished spray per acre.

Specific Use Restrictions:

1. Apply up to the day of harvest (0-day PHI).
2. Do not apply more than 10 quarts per acre (7.5 lb ai/a) per application.
3. Do not apply more than 20 gallons per acre (60 lb ai/a) per season.
4. Do not make post-harvest applications.

**For ornamental crops:** apply 0.25% to 1% solution (1-4 quarts Sil-MATRIX® LC/100 gal.) making sure to get good coverage of the foliage. Apply in 20 to 250 gallons of water per acre.

Specific Use Restrictions:

1. Do not apply more than 10 quarts per acre (7.5 lb ai/a) per application.
2. Do not apply more than 15 gallons per acre (45 lb ai/a) per season.

**For turf use:** apply 1 to 2% solution (4-8 quarts Sil-MATRIX® LC /100 gal.) in a minimum of 40 gallons finished spray per acre or 1 gallon finished spray per 1000 ft<sup>2</sup>.

Specific Use Restrictions:

1. Do not apply more than 8 quarts per acre (6.0 lb ai/a) per application. Do not apply more than 5.8 fluid ounces per 1000 ft<sup>2</sup> (0.14 lb ai/1000 ft<sup>2</sup>) per application.
2. Do not apply more than 10 gallons per acre (30 lb ai/a) per season. Do not apply more than 29 fluid ounces per 1000 ft<sup>2</sup> (0.7 lb ai/1000 ft<sup>2</sup>) per season.

## DISEASE MONITORING:

Sil-MATRIX® LC is a broad spectrum, preventative fungicide. If not applied on a routine protectant spray schedule, observe plants for disease signs or symptoms. Apply appropriate fungicide, at the listed label use rate and spray schedule, at the first sign of disease, report of disease in the area, or during environmental conditions favorable for disease development.

## CROPS

### CROP GROUP 1: ROOT AND TUBER VEGETABLES

Beet, garden; beet, sugar; carrot; cassava; celeriac; chayote (root); chervil; chicory; ginger; ginseng; horseradish; parsley root; potato; radish; rutabaga; salsify; sweet potato; turnip; yam

### CROP GROUP 3-07: BULB VEGETABLES

Garlic, bulb; garlic; leek; onion, bulb; shallot, bulb; shallot

### CROP GROUP 4-16: LEAFY VEGETABLES

Arugula; collards; endive; kale; lettuce, leaf; mustard greens; parsley; radicchio; spinach; Swiss chard

### CROP GROUP 5: *BRASSICA* (COLE) LEAFY VEGETABLES

Broccoli; Brussels sprouts; cabbage; cauliflower; collards; kale; kohlrabi; mustard greens

### CROP GROUP 6: LEGUME VEGETABLES (SUCCULENT OR DRIED)

Beans; broad bean; chickpea; lentil; pea; soybean

### CROP GROUP 8: FRUITING VEGETABLES (EXCEPT CUCURBITS)

Eggplant; pepper; tomato

### CROP GROUP 9: CUCURBIT VEGETABLES

Cucumber; gherkin; muskmelon; pumpkin; squash, summer; squash, winter; watermelon

### CROP GROUP 10-10: CITRUS FRUIT

Grapefruit; lemon; lime; pummelo; mandarin; orange; tangerine (mandarin)

### CROP GROUP 11-10 POME FRUIT

Apple; crabapple; loquat; mayhaw; pear; quince

### CROP GROUP 12-12: STONE FRUIT

Apricot; cherry; nectarine; peach; plum; prune

#### CROP GROUP 13-07: BERRY AND SMALL FRUIT

Blackberry, blueberry; gooseberry; grape; loganberry; raspberry; strawberry

#### CROP GROUP 14-12: TREE NUTS

Almond; beechnut; Brazil nut; butternut; cashew; chestnut; chinquapin; hazelnut (filbert); hickory nut; macadamia nut; pecan; pistachio; walnut

#### CROP GROUP 15: CEREAL GRAINS

Corn; barley; millet; oats; popcorn; rice; rye; sorghum; wheat; wild rice

#### CROP GROUP 20: OILSEED

Jojoba; sesame; sunflower

#### CROP GROUP 22: STALK, STEM AND LEAF PETIOLE VEGETABLE GROUP

Asparagus; Celery; Fennel; Rhubarb

#### MISCELLANEOUS CROPS

Artichoke; Coffee; cotton; hops; ornamental; tea; tobacco; turf grass; grass grown for seed

#### OTHER CROPS

Hemp

#### TURF & ORNAMENTALS

(Including broadleaf shrubs and trees, flowering plants and bulbs, and foliage plants.)

**IMPORTANT NOTE:** Plant sensitivities to Sil-MATRIX® LC have been found to be acceptable for plants listed on this label; however, it is impossible to know sensitivities under all conditions and phytotoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to Sil-MATRIX® LC. Neither the manufacturer nor seller endorses use upon species not listed on the label, nor has it been determined that this product can be safely used on ornamental or nursery plants not listed on this label. The user must determine if Sil-MATRIX® LC can be used safely prior to commercial use. In a small area, apply the listed rates to the plants in question, i.e. foliage, fruit, etc., and observe for 7-10 days for symptoms of phytotoxicity prior to commercial use. **Do not apply foliar sprays to open blooms of Geranium, Marigold, Pansy, and Petunia.**

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#### BROADLEAF SHRUBS AND TREES

Andromeda; ash; aspen; azalea; buckeye; camellia; cherry laurel; crabapple; dogwood; eucalyptus; euonymus; firethorn; flowering almond; flowering cherry; flowering peach; flowering plum; flowering quince; hawthorn; holly; laurel; lilac; magnolia; maple; oak; poplar; privet; red-tip; rhododendron; sequoia; spirea; sycamore; viburnum; walnut

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## FLOWERING PLANTS AND BULBS

African violet; begonia; carnation; chrysanthemum; crocus; daffodil; daisy; geranium\*; gladiolus; hollyhock; hydrangea; iris; lily; marigold\*; narcissus; pansy\*; petunia\*; phlox; rose; statice; tulip; zinnia

**\*NOTE: Do not apply foliar sprays of Sil-MATRIX® LC to open blooms of these species.**

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## FOLIAGE PLANTS

Aglaonema; artemesia; Boston fern; dracaena; dumbcane; fatsia; ficus; leatherleaf fern; lipstick plant; Ming aralias; oyster plant; pachysandra; palm; parlor palm; peperomia; philodendron; prayer plant; ruffle fern; syngonium; zebra plant

## CHEMIGATION APPLICATION INSTRUCTIONS

### GENERAL INFORMATION

Apply this product only through drip (trickle); sprinkler (solid set, lateral move, end tow, sideroll, center pivot, or hand move); flood (basin); furrow; or border irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

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.

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, back-flow 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 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. 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.

#### DRIP TRICKLE CHEMICIGATION

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.

#### SPRINKLER CHEMICIGATION

1. 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.
2. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional Interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.

6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply when soils are moderately moist. Use volumes that thoroughly wet the foliage and/or soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.
8. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### FLOOD (BASIN), FURROW AND BORDER CHEMIGATION

- 1 Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or wear box to decrease potential of water source contamination from the backflow if water flow stops.
- 2 Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. 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.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. 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.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e. 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.
  - f. Systems must use a metering pump, such as a positive displacement injection pump (i.e. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 3 Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.

## STORAGE AND DISPOSAL

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

**Storage:** Keep pesticide in original container. Keep container tightly closed when not in use. Store product above 40°F. Do not store in aluminum, fiber-glass, copper, brass, zinc, or galvanized containers. Protect from excessive heat. Store in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY

Certis USA LLC warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

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