

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

**CAUTION**

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

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear protective eyewear, long pants and long-sleeved shirt, waterproof gloves, shoes plus socks.

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

When handlers use closed systems, aircraft or enclosed cabs 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 drinking, eating, chewing gum, using tobacco or using the toilet.
- Remove PPE clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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**

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 or rinsate.

**DIRECTIONS FOR USE**

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

Read entire label before using this product.

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 state or tribal agency responsible for pesticide registration.

**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 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 are permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soils or water, is:

- coveralls worn over short-sleeved shirt and short pants,
- waterproof gloves,
- shoes plus socks, and
- protective eyewear.

**NON-AGRICULTURAL USE**

The requirements of this box apply to uses of this product that are not covered by the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The Worker Protection Standard does not apply to uses of this product on farms, forests, nurseries or greenhouses.

Do not enter treated areas without protective clothing until spray has dried.

**CHEMIGATION**

Use of ALUDE® through chemigation is not permitted in California.

Apply this product only through center pivot, solid set or drip through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues may result from treated water.

If you have questions about calibration, contact State Extension experts.

Do not connect an irrigation system (including greenhouse system) unless the pesticide label-prescribed safety devices for that system are in place.

A person knowledgeable of the chemigation system and responsible person, shall shut the system down and make necessary repairs.

**SPRINKLER AND DRIP (TRICKLE) IRRIGATION SYSTEMS**

The irrigation system must contain a functional check valve, valve located on the irrigation pipeline to prevent water source contamination.

The pesticide injection pipeline must contain a functional, automatic backflow preventer.

The pesticide injection pipeline must also contain a functional, return line to the injection pump and connected to the system supply tank when the irrigation system is either automatically or manually operated.

The system must contain functional interlocking controls to automatically stop the water pump motor stops.

The irrigation line or water pump must include a functional pressure relief valve to prevent the pressure from increasing to a point where the pipe or other equipment might fail. Systems must use a metering pump, such as a positive displacement pump, designed and constructed of materials that are compatible with the pesticide being applied.

(Sprinkler Chemigation Only) Do not apply when wind speed favors drift.

Apply ALUDE® continuously for the duration of the water application. Avoid further irrigation of the treated area until foliage is dry or fruit has hardened.

**GENERAL APPLICATION**

Apply ALUDE® by various application methods, including foliar application and bare root dip. For foliar sprays, apply ALUDE® with sufficient water to ensure good coverage.

**MIXING INSTRUCTIONS**

1. Fill the spray tank with 1/4 to 1/2 of the volume of water required for the application.
2. Add ALUDE® slowly to the tank and agitate by mechanical means.
3. Continue agitating as tank fills with water to the desired volume.
4. Maintain agitation during application.



**MENTS**

n the scope of the Worker Protection this product is used to produce agri-

n systems. Do not apply this product

result from nonuniform distribution of

ists, equipment manufacturers or other

ticide application to a public water sys- is are in place.

eration or under the supervision of the its should the need arise.

se and low-pressure drain appropriately ckflow.

ing valve to prevent the flow of fluid back

solenoid-operated valve located on the ent fluid from being withdrawn from the low.

f the pesticide injection pump when the

h will stop the water pump motor when acted.

ump (e.g., diaphragm pump) effectively capable of being fitted with a system

the area intended for treatment.

ent with ALUDE® has been completed, s.

**CTIONS**

h, soil incorporation, basal bark appli- umes for adequate coverage of foliage, s, but avoid runoff.

ing ALUDE®. s.

**COMPATIBILITY**

ALUDE® is compatible with most products used in agriculture. However, individual crop sensitivity to these mixtures may vary. Mixtures of ALUDE® with some foliar fertilizers and copper products are not always compatible or cause phytotox- icity to some plants. If these combinations or others have not been used previously, do not tank mix without first testing the compatibility of the tank mix. Do not apply tank mixture without first assessing its safety to the crop (phytotoxicity). Tank mix ALUDE® with fertilizers only if crop safety has been established and the ALUDE® use rates are followed.

Due to ALUDE®'s acidic nature, do not use acidifying-type compatibility agents. If spray adjuvants are used, test them before use to confirm compatibility with ALUDE®.

Use a jar test to confirm compatibility with ALUDE®. In a clean jar using the same water source that is normally used to fill spray tank, add the same proportions of each product and the appropriate quantity of water and mix thoroughly. Let stand for 3 minutes. If mixture remains in solution or is remixed readily the tank mix is compatible.

Spray the solution that results from the above compatibility test onto a few plants and inspect for visual effects of phy- totoxicity (leaf burn) 3 to 7 days later.

**AGRICULTURAL APPLICATIONS**

**APPLES, CRAB APPLES, LOQUATS, PEARS & QUINCE\***

Use ALUDE® for effective control of black spot, root and collar rot and fire blight in apples, crab apples, loquats, pears, and quinces.

Disease	Application Method	Rate	Application Program
Apple black spot or scab ( <i>Venturia inaequalis</i> )	Foliar spray	1/2 gallon per acre in 25-250 gallons water per acre	First application at open cluster. Last application at fifth cover or fruit at 2" to 2½" diameter. Total of 10 applications at 10 to 12 day intervals. When conditions are conducive to a black spot out-break, apply ALUDE® immediately. Note: After 4 or 5 consecutive applications some yellowing of extension growth may be observed. If yellowing occurs use another fungicide until yellow- ing of leaves disappears.
Root and collar rot ( <i>Phytophthora cactorum</i> ) Fire Blight ( <i>Erwinia amylovora</i> )	Foliar spray	Apply at 1¼ to 2½ quarts per acre with a maximum of 250 gals. water per acre	One to two month intervals between treatments. Under high disease pressure use higher application rate and shorter spray interval. Ensure thorough coverage.

\*Not for use in California.

**CUCURBITS**

Use ALUDE® for effective control of sudden wilt, gummy stem blight, and downy mildew diseases in cucurbits grown in field situations such as, but not limited to, cucumber, Chinese waxgourd, citron melon, gherkin rock melon, honeydew melon, pumpkin, zucchini, watermelon and squash (summer and winter), *Momordica* spp. balsam apple, balsam pear, bitter melon, and Chinese cucumber.

Disease	Application Method	Rate	Application Program
Sudden wilt – Root and fruit rot ( <i>Phytophthora</i> spp)	Foliar spray	Apply 1¼ quarts per acre in 40 gallons of water	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season.
Gummy stem blight ( <i>Mycosphaerella melonis</i> )			Apply when disease is evident. Continue applications at 21-day intervals until cure is apparent. Do not exceed a total of 6 applications per season.
Downy mildew ( <i>Pseudoperonospora cubensis</i> )			Apply within 7 to 10 days of infection. Repeat as necessary. Do not exceed a total of 6 applications per season.

**CUCURBITS, TANK MIXTURES\***

For the effective control of downy mildew diseases to cucurbits.

Product	Disease
ALUDE® + mancozeb-containing fungicide	Downy mildew

**FRUITING VEGETABLES\***

Use ALUDE® for effective control of damping- tomatillos, and peppers such as, but not limited

Disease	Application Method
Eggplant: <i>Pythium</i> and <i>Phytophthora</i> spp., and Gummy stem blight ( <i>Mycosphaerella melonis</i> )	Foliar spray
Peppers: Late blight and root rot ( <i>Phytophthora infestans</i> and <i>Phytophthora</i> spp)	
Tomatoes/Tomatillos: Late blight and root rot ( <i>Phytophthora infestans</i> and <i>Phytophthora</i> spp.)	

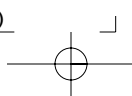
\*Use in California limited to tomatoes and toma

**LEAFY VEGETABLES\***

Use ALUDE® for effective control of downy mil- k cardoon, celery, chervil, corn salad, endive, fe Excludes Brassica vegetables.

Disease	Application Method
Downy mildew ( <i>Brenua lactucae</i> )	Foliar spray

\*Use in California limited to lettuce.



individual crop sensitivity to these mixtures may vary. Some are not always compatible or cause phytotoxicity. Previously, do not tank mix without first testing assessing its safety to the crop (phytotoxicity). The ALUDE® use rates are followed.

agents. If spray adjuvants are used, test them

the same water source that is normally used to irrigate quantity of water and mix thoroughly. Let the tank mix is compatible.

new plants and inspect for visual effects of phy-

**ACTIONS**

re blight in apples, crab apples, loquats, pears,

Application Program
First application at open cluster. Last application at fifth cover or fruit at 2" to 2½" diameter. Total of 10 applications at 10 to 12 day intervals. When conditions are conducive to a black spot outbreak, apply ALUDE® immediately. Note: After 4 or 5 consecutive applications some yellowing of extension growth may be observed. If yellowing occurs use another fungicide until yellowing of leaves disappears.
One to two month intervals between treatments. Under high disease pressure use higher application rate and shorter spray interval. Ensure thorough coverage.

Downy mildew diseases in cucurbits grown in Florida, citron melon, gherkin rock melon, honeydew melon, Momordica spp., balsam apple, balsam pear,

Application Program
Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season.
Apply when disease is evident. Continue applications at 21-day intervals until cure is apparent.
Do not exceed a total of 6 applications per season.
Apply within 7 to 10 days of infection. Repeat as necessary.
Do not exceed a total of 6 applications per season.

**CUCURBITS, TANK MIXTURES\***

For the effective control of downy mildew diseases, tank-mix ALUDE® with a mancozeb-containing fungicide and apply to cucurbits.

Product	Disease	Rate Per Acre	Application Program
ALUDE® + mancozeb-containing fungicide	Downy mildew	Light to medium foliage cover: Apply 1½-2 qts.  Heavy foliage cover: Apply 3 quarts of product per acre + Label rate of mancozeb	Apply as a foliar spray the indicated quantity and dilution rates with water of both products.  For best results apply ALUDE® as a tank mix with protectant fungicides such as mancozeb, copper oxychloride, etc., to ensure both pre- and post-infection activity.

**FRUITING VEGETABLES\***

Use ALUDE® for effective control of damping-off, root rot, and gummy stem blight diseases in eggplant, tomatoes, tomatillos, and peppers such as, but not limited to, bell, chili, cooking, pimento, and sweet.

Disease	Application Method	Rate	Application Program
Eggplant: <i>Pythium</i> and <i>Phytophthora</i> spp., and Gummy stem blight ( <i>Mycosphaerella melonis</i> )	Foliar spray	Apply 1¼ quarts acre in 40 gallons of water	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season. Apply when disease is evident. Continue applications at 21-day intervals until cure is apparent. Do not exceed a total of 6 applications per season.
Peppers: Late blight and root rot ( <i>Phytophthora infestans</i> and <i>Phytophthora</i> spp.)		1½ quarts per acre in 25 gallons of water to 2 quarts per acre in 250 gallons of water	First application at transplant or when direct seeded crops are at 2-4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.
Tomatoes/Tomatillos: Late blight and root rot ( <i>Phytophthora infestans</i> and <i>Phytophthora</i> spp.)		1½ quarts per acre in 25 gallons of water to 2 quarts per acre in 250 gallons of water  California: 1¼ quarts per acre in 90 gallons of water	First application at transplant or when direct seeded crops are at 2-4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.

\*Use in California limited to tomatoes and tomatillos.

**LEAFY VEGETABLES\***

Use ALUDE® for effective control of downy mildew in leafy vegetables such as, but not limited to, amaranth, arugula, cardoon, celery, chervil, corn salad, endive, fennel, lettuce, parsley, radicchio, rhubarb, spinach, and Swiss chard. Excludes Brassica vegetables.

Disease	Application Method	Rate	Application Program
Downy mildew ( <i>Brenua lactucae</i> )	Foliar spray	1/2 gallon per acre in 40 gallons of water	Ensure spray coverage is adequate to wet the whole plant.  During warm, wet conditions repeat application at 7 to 10 day intervals, if needed.

\*Use in California limited to lettuce.

**LEGUMES\***

Use ALUDE® for effective control of downy mildew not limited to, green beans, soybeans, white beans, mung beans, broad beans, lentils, peas, and pigeon peas.

Disease	Application
<i>Phytophthora</i> and <i>Pythium</i> spp.	Foliar spray

\*Not for use in California.

**OKRA\***

Use ALUDE® for effective control of damping-off

Disease	Application
<i>Phytophthora</i> and <i>Pythium</i> spp.	Foliar spray

\*Not for use in California.

**ONIONS**

Use ALUDE® for effective control of downy mildew control program for best results.

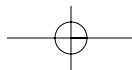
Disease	Application
Downy mildew ( <i>Peronospora destructor</i> )	Foliar spray

**ONIONS, TANK MIXTURES\***

For the effective control of downy mildew in onions, garlic and shallots.

Product	Disease
ALUDE® + mancozeb-containing fungicide	Downy mildew

\*Not for use in California.



ALUDE® with a mancozeb-containing fungicide and apply

Rate	Application Program
1 quart per acre in 25 gallons of water	Apply as a foliar spray the indicated quantity and dilution rates with water of both products.
2 quarts per acre in 250 gallons of water	For best results apply ALUDE® as a tank mix with protectant fungicides such as mancozeb, copper oxychloride, etc., to ensure both pre- and post-infection activity.

gummy stem blight diseases in eggplant, tomatoes, okra, pimiento, and sweet.

Rate	Application Program
1 quart per acre in 25 gallons of water	Entire spray coverage of plant is required. Do not exceed a total of 6 applications per season.
2 quarts per acre in 250 gallons of water	Apply when disease is evident. Continue applications at 21-day intervals until cure is apparent.
2 quarts per acre in 250 gallons of water	Do not exceed a total of 6 applications per season.
2 quarts per acre in 250 gallons of water	First application at transplant or when direct seeded crops are at 2-4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.
2 quarts per acre in 250 gallons of water	First application at transplant or when direct seeded crops are at 2-4 true leaf, then at one to two week intervals as required to control disease. In high disease situations use higher rates and shorter spray intervals.

vegetables such as, but not limited to, amaranth, arugula, arley, radicchio, rhubarb, spinach, and Swiss chard.

Rate	Application Program
1 quart per acre in 25 gallons of water	Ensure spray coverage is adequate to wet the whole plant.
2 quarts per acre in 250 gallons of water	During warm, wet conditions repeat application at 7 to 10 day intervals, if needed.

**LEGUMES\***

Use ALUDE® for effective control of damping-off and root rot diseases in legumes (succulent and dried) such as, but not limited to, green beans, soybeans, wax beans, field beans, navy beans, lima beans, fava beans, kidney beans, pinto beans, mung beans, broad beans, lentils, chickpeas, English peas, snow peas, sugar snap peas, black-eyed peas, cow peas, and pigeon peas.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> and <i>Pythium</i> spp.	Foliar spray	1½ quarts per acre in 25 gallons of water to 2 quarts per acre in 250 gallons of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

\*Not for use in California.

**OKRA\***

Use ALUDE® for effective control of damping-off and root rot diseases in okra.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> and <i>Pythium</i> spp.	Foliar spray	1½ quarts per acre in 25 gallons of water to 2 quarts per acre in 250 gallons of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

\*Not for use in California.

**ONIONS**

Use ALUDE® for effective control of downy mildew disease in onions, garlic, shallots, and leeks. Use as a preventative control program for best results.

Disease	Application Method	Rate	Application Program
Downy mildew ( <i>Peronospora destructor</i> )	Foliar spray	2 quarts per acre in 100 gallons of water per acre	As a regular preventative control program or when disease first appears.

**ONIONS, TANK MIXTURES\***

For the effective control of downy mildew diseases, tank-mix ALUDE® with a mancozeb-containing fungicide and apply to onions, garlic and shallots.

Product	Disease	Rate Per Acre	Application Program
ALUDE® + mancozeb-containing fungicide	Downy mildew	2 quarts per acre in 100 gallons of water per acre + Label rate of mancozeb	Apply as a foliar spray the indicated quantity and dilution rates with water of both products.  For best results, apply ALUDE® as a tank mix with protectant fungicides such as mancozeb to ensure both pre- and post-infection activity.

\*Not for use in California.

**ROOT AND TUBER VEGETABLES\***

Use ALUDE® for effective control of damping-off and root rot diseases in root and tuber vegetables.

Disease	Application Method	Rate	Application Program
Ginseng: Foliar and root rot ( <i>Phytophthora cactorum</i> )	Foliar spray	1 quart per acre in 25 gallons of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

\*Use in California limited to potato.

**GRASS\***

Use ALUDE® for effective control of damping-off and root rot diseases in Bermuda, fescue, bent, blue, ryegrass, and timothy.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> and <i>Pythium</i> spp.	Foliar spray	1 quart per acre in 25 gallons of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

\*Not for use in California.

**LANDSCAPE, GOLF COURSE\***

Use ALUDE® for effective control of damping-off and root rot diseases in landscape and golf course plants (Sudden Oak Death, *Phytophthora* spp., *Pythium* spp., etc.), golf courses, forests and parks. Use on Apple, Dogwood, Elm, Fir, Hawthorn, Ornamental Pear, Pyracantha, Spirea, and Yew. Make applications before disease onset. Use the rate of application when disease is first observed or when tree injury that are in a state of dormancy. Do not exceed a total of 6 applications per season.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> and <i>Pythium</i> spp. and <i>Phytophthora ramorum</i>	Foliar spray	1 quart per acre in 25 gallons of water	Inject into basal stem of trees and shrubs.

of root diseases in legumes (succulent and dried) such as, but not limited to, navy beans, lima beans, fava beans, kidney beans, pinto beans, and green peas, snow peas, sugar snap peas, black-eyed peas, cow

Rate	Application Program
2 quarts per acre in 100 gallons of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

of root diseases in okra.

Rate	Application Program
2 quarts per acre in 100 gallons of water	Apply at 14-day intervals after plant emergence, as needed. Assure good coverage.

Use in onions, garlic, shallots, and leeks. Use as a preventative

Rate	Application Program
2 quarts per acre in 100 gallons of water	As a regular preventative control program or when disease first appears.

Mix ALUDE® with a mancozeb-containing fungicide and apply

Rate Per Acre	Application Program
2 quarts per acre in 100 gallons of water	Apply as a foliar spray the indicated quantity and dilution rates with water of both products.
2 quarts per acre in 100 gallons of water	For best results, apply ALUDE® as a tank mix with protectant fungicides such as mancozeb to ensure both pre- and post-infection activity.

**ROOT AND TUBER VEGETABLES\***

Use ALUDE® for effective control of foliar and root rot in ginseng, damping-off and root rot diseases in carrots, and late blight disease and storage diseases such as pink rot and *Pythium* leak in potatoes, sweet potatoes, and yams.

Disease	Application Method	Rate	Application Program
Ginseng: Foliar and root rot ( <i>Phytophthora cactorum</i> )	Foliar spray	2½ quarts in 100 gallons of water	In cool, wet conditions that favor <i>Phytophthora</i> . Apply at 7-day intervals. Do not exceed a total of 8 applications per season.

\*Use in California limited to potatoes, sweet potatoes, and yams.

**GRASS GROWN FOR SEED PRODUCTION\***

Use ALUDE® for effective control of damping-off and root rot diseases in turfgrasses such as, but not limited to, Bermuda, fescue, bent, blue, rye, zoysia, buffalo, and *Poa annua*.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> and <i>Pythium</i> spp.	Foliar spray	1½ quarts per acre in 25 gallons of water to 2 quarts per acre in 250 gallons of water	Apply at 14-21 day intervals, as necessary. Ensure thorough coverage.

\*Not for use in California.

**LANDSCAPE, GOLF COURSE, NURSERY, FORESTRY AND PARK APPLICATIONS\***

Use ALUDE® for effective control of *Phytophthora* and *Pythium* diseases associated with Stem and Canker Blight (Sudden Oak Death, *Phytophthora ramorum*), Beech Decline and general tree decline syndromes in landscapes, nurseries, golf courses, forests and parks. Apply ALUDE® to trees such as, but not limited to, Beech, Cedar, Chestnut, Crab Apple, Dogwood, Elm, Fir, Hawthorn, Juniper, Linden, Monterey Pine, Oaks (Coastal, Live, Shreve, Black, Canyon), Ornamental Pear, Pyracantha, Sweet Birch, Sweet Gum, White Pine, White Cedar and Willow.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label or tree injury may occur. Do not apply to trees that are heat or moisture stressed. Do not apply to trees that are in a state of dormancy. Do not exceed indicated spray intervals or label rates in order to avoid tree injury.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> and <i>Pythium</i> spp. and <i>Phytophthora ramorum</i>	Injection	11 fl. oz. per 21 fl. oz. of water OR 1/2 tsp. per tsp. of water	Drill holes 3/16 inch (5 mm) in diameter <u>into live sapwood</u> (Depth dependent upon age of tree) with downward angle into trunk uniformly around the tree circumference, using a slow drill. Do not inject into areas of obvious decay, canker or mechanical injury that appear on the tree trunk. Calculate the amount of product required by measuring the trees by one of the following 3 methods and use the highest calculated number of injections. 1) 1 injection per square yard of canopy; 2) 1 injection per yard of diameter of canopy measured at the dripline; 3) 1 injection per 6 inches of trunk circumference measured 4 feet above soil level. Make injections with applicators that maintain positive pressure differential such as ChemJet®, Sidewinder®, Ag-murph Gun®, Marley® Injector, or hydraulic applicator type equipment that forces solution into the sapwood of the tree.
	Basal Bark Spray	62.4 fl. oz. + 62.4 fl. oz. of water + 3.2 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	

(continued)

Disease
Fire Blight

\*Use in California is limit

Use ALUDE® for effective control of diseases in landscape ornamentals in landscape ornamentals, Aglaonema, Anthurium, Cotoneaster, Cissampelos, Dieffenbachia, Ficus, Fern, Peperomia, Phalaenopsis, and mini varieties)

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label or plant injury may occur. Do not apply to plants that are in a state of dormancy.

Disease
Bacterial blight ( <i>Xanthomonas campestris</i> ) pathovars: <i>dieffenbachiae</i> , <i>ficus</i> , <i>hederiae</i> and <i>syngonii</i>
Downy mildew
<i>Phytophthora</i> spp. and <i>Pythium</i> spp.

ot rot in ginseng, damping-off and root rot diseases in carrots, and late  
ot rot and *Pythium* leak in potatoes, sweet potatoes, and yams.

Rate	Application Program
2½ quarts in 100 gallons of water	In cool, wet conditions that favor <i>Phytophthora</i> . Apply at 7-day intervals. Do not exceed a total of 8 applications per season.

toes, and yams.

**N FOR SEED PRODUCTION\***

off and root rot diseases in turfgrasses such as, but not limited to,  
and *Poa annua*.

Rate	Application Program
1½ quarts per acre in 25 gallons of water to 2 quarts per acre in 250 gallons of water	Apply at 14-21 day intervals, as necessary. Ensure thorough coverage.

**RSERY, FORESTRY AND PARK APPLICATIONS\***

ora and *Pythium* diseases associated with Stem and Canker Blight  
ech Decline and general tree decline syndromes in landscapes, nurs-  
DE® to trees such as, but not limited to, Beech, Cedar, Chestnut, Crab  
inden, Monterey Pine, Oaks (Coastal, Live, Shreve, Black, Canyon),  
at Gum, White Pine, White Cedar and Willow.

nd in conjunction with good cultural management practices. Use higher  
re. Do not exceed indicated application rates or apply more frequently  
ot apply to trees that are heat or moisture stressed. Do not apply to trees  
licated spray intervals or label rates in order to avoid tree injury.

Rate	Application Program
11 fl. oz. per 21 fl. oz. of water OR 1/2 tsp. per tsp. of water	Drill holes 3/16 inch (5 mm) in diameter <u>into live sapwood</u> (Depth dependent upon age of tree) with downward angle into trunk uniformly around the tree circumference, using a slow drill. Do not inject into areas of obvious decay, canker or mechanical injury that appear on the tree trunk. Calculate the amount of product required by measuring the trees by one of the following 3 methods and use the highest calculated number of injections. 1) 1 injection per square yard of canopy; 2) 1 injection per yard of diameter of canopy measured at the dripline; 3) 1 injection per 6 inches of trunk circumference measured 4 feet above soil level. Make injections with applicators that maintain positive pressure differential such as ChemJet®, Sidewinder®, Ag-murph Gun®, Marley® Injector, or hydraulic applicator type equipment that forces solution into the sapwood of the tree.
62.4 fl. oz. + 62.4 fl. oz. of water + 3.2 fl. oz. Pentra-Bark™ Bark Penetrating Surfactant	

(continued)

Disease	Application Method	Rate	Application Program
Fire Blight	Foliar Spray	1¼ quarts per 100 gallons of water	Apply uniformly to 6-9 feet of trunk circumference. Spray from top down to ground level from either first branch or from as high as possible without exposing applicator to drift. Spray to just prior to runoff. Can be used as a preventative or curative application. Various types of application equipment can be used such as hydraulic sprayers, handheld pump-type sprayers, backpack sprayers, hose-end applicators with backflow prevention devices, and other similar application devices. First application pre-bloom. Application intervals: 7 days until end of bloom period. Apply spray to thoroughly wet all foliage.

\*Use in California is limited to Oaks (Coastal, Live, Shreve, Black, Canyon) and Tan Oaks.

**ORNAMENTAL APPLICATIONS**

Use ALUDE® for effective control of Bacterial blight, Downy mildew, *Phytophthora* spp. and *Pythium* spp. diseases of  
Ornamentals in landscapes, nurseries, golf courses, parks, and greenhouses. Apply ALUDE® to plants such as, but not lim-  
ited to, Aglaonema, Anthurium, Aphelandra, Arborvitae, Azaleas, Bougainvillea, Boxwood, Cattelya skinneri, Ceanothus,  
Cotoneaster, Cissus, Dieffenbachia, English ivy, Eucalyptus, Ficus, Hibiscus, Japanese andromeda, Japanese Holly, Leather  
leaf Fern, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Rhododendron, Roses (container, field, land-  
scape, and mini varieties), Schefflera, Sedum, Sempervivum, Syngonium, Spathiphyllum, Taxus media, and Zygocactus.

Make applications before disease development and in conjunction with good cultural management practices. Use higher  
rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than  
stated on label or plant injury may occur. Do not apply to plants that are heat or moisture stressed. Do not apply to plants  
that are in a state of dormancy. Do not exceed indicated spray intervals or label rates in order to avoid plant injury.

Disease	Application Method	Rate	Application Program
Bacterial blight ( <i>Xanthomonas campestris</i> ) pathovars: <i>dieffenbachiae</i> , <i>fici</i> <i>hederae</i> and <i>syngonii</i>	Foliar spray	2-4 pints per 100 gallons of water OR 2-4 tsp. per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 7 to 14 days. Repeat as required.
Downy mildew		1½-2½ quarts per 100 gallons of water OR 2½-5 tsp. per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
<i>Phytophthora</i> spp. and <i>Pythium</i> spp.		1-2 quarts per 100 gallons of water OR 2-4 tsp. per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
	Soil drench	6¼-12¼ fl. oz. per 100 gallons of water	Apply each 25 gallons of solution to an area of 100 sq. ft. Follow application with irrigation. Repeat as required. Limit of one application per month.
	Soil incorporation	1-2 pints per cubic yard of soil	Just prior to potting, mix 1 to 2 pts. of ALUDE® into each cubic yard of growing media. If disease pressure is high, apply foliar spray or soil drench.
	Bare rooted dipping of transplants	2 pints per 100 gallons of water OR 2 tsp. per gallon of water	Immediately before transplanting, dip transplants for two minutes, keep roots submerged, ensure ensure root mass is thoroughly wet.

### BEDDING PLANTS

Use ALUDE® for effective control of Downy mildew, *Phytophthora* spp. and *Pythium* spp. diseases of BEDDING PLANTS grown in landscapes, nurseries, golf courses, parks, and greenhouses. Apply ALUDE® to plants such as, but not limited to, Ageratum, Algerian Ivy, Anthurium, Artemesia, Aster, Begonia, Baby's Breath, Caladium, Carnation, Chrysanthemum, Columbine, Coleus, Daisy, Delphinium, Easter Lily, Foxglove, Gaillardia, Geranium, Gloxinia, Impatiens, Marigold, Petunia, Pansy, Phlox, Pinks, Poinsettia, Primrose, Prostrate Rosemary, Salvia, Snapdragon, Vinca, Verbena, and Zinnia.

Make applications before disease development and in conjunction with good cultural management practices. Use higher rate of application when disease pressure is severe. Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to plants that are heat or moisture stressed.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i> spp. and <i>Pythium</i> spp.	Foliar Spray	1½-2½ quarts per 100 gallons of water OR 1/2-1¼ fl. oz. per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
	Foliar spray	1-2 quarts per 100 gallons of water OR 2-4 tsp. per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required. Note: Do not apply more than 500 gallons of spray solution per acre.
	Soil drench	6¼-12¼ fl. oz. per 100 gallons of water	Apply each 25 gallons of solution to an area of 100 square feet. Follow application with irrigation. Repeat as required. Limit of one application per month.

### CONIFERS IN COMMERCIAL NURSERIES, PLANTATIONS AND FORESTS\* (INCLUDING CHRISTMAS TREES)

Apply ALUDE® in conjunction with good cultural management practices for effective control of root rot (*Phytophthora* spp.) in CONIFERS including, but not limited to, Pines, Spruce and Douglas Fir. Use higher rate of application when disease pressure is severe.

Do not exceed indicated application rates or apply more frequently than stated on label in order to avoid plant injury. Do not apply to CONIFERS that are moisture or heat stressed.

Disease	Application Method	Rate	Application Program
Phytophthora	Foliar spray	1-2 quarts per 100 gallons of water OR 2-4 tsp. per gallon of water	Apply spray to thoroughly wet all foliage. Application intervals: 14 to 21 days. Repeat as required.
	Soil drench	1-2 quarts per 100 gallons of water OR 2-4 tsp. per gallon of water	Apply one gallon of solution per sq. yd. Follow application with irrigation. Application intervals: 14 to 21 days. Repeat as required.

(cont. on next page)

### CONIFERS IN COMMERCIAL NURSERIES, PLANTAT

Disease	Application Method	Rate
<i>Phytophthora</i>	Bare root dipping at transplanting	1 quart per 100 gallons of water OR 2 tsp. per gallon of water

\*Not for use in California.

Do not graze livestock in treated areas of conifer nurseries or plantations and/or nurseries.

### TURF

Use ALUDE® for the effective control of *Pythium* and damping-off in commercial landscapes, commercial turf production, and sod farms. W cations and repeat at indicated intervals. Use higher rate of applic

Disease	Application Method	Rate
<i>Pythium</i>	Foliar spray	5-10 fl. oz. per 1,000 sq. ft.

### TURF TANK MIX

For the effective control of summer stress complex caused by a i mix ALUDE® with PROTECT T/O®\*\* or mancozeb-containing fungi commercial landscapes, commercial turf production, and sod farm

Product	Disease	Rate per 1,000
ALUDE® + PROTECT T/O®** or mancozeb-containing fungicide	Summer Stress Complex ( <i>Rhizoctonia</i> and <i>Pythium</i> spp.)	5-10 fl. oz. ALUDI + 4 to 8 fl. oz. PROTECT T/O®** mancozeb-contai fungicide

\*\*Registered trademark of Cleary Chemical Corp.

Do not graze animals on treated areas of turf. Do not feed treated

**CONIFERS IN COMMERCIAL NURSERIES, PLANTATIONS AND FORESTS\* (cont.)**

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i>	Bare root dipping at transplanting	1 quart per 100 gallons of water OR 2 tsp. per gallon of water	Immediately before transplanting, dip transplants for two minutes; keep roots submerged and ensure root mass is thoroughly wet.

\*Not for use in California.

Do not graze livestock in treated areas of conifer nurseries or plantations. Do not feed forage from treated areas of plantations and/or nurseries.

**TURF**

Use ALUDE® for the effective control of *Pythium* and damping-off diseases of turf grasses on golf courses, parks, commercial landscapes, commercial turf production, and sod farms. When conditions favor disease, begin preventive applications and repeat at indicated intervals. Use higher rate of application when disease pressure is severe.

Disease	Application Method	Rate	Application Program
<i>Pythium</i>	Foliar spray	5-10 fl. oz. per 1,000 sq. ft.	Apply indicated quantity of product in 1 to 2 gallons of water per 1,000 sq. ft. Ensure foliage is thoroughly wet.  Application intervals: 14 to 21 days. Repeat as required. Do not irrigate or mow treated areas until spray has completely dried.

**TURF TANK MIXTURES**

For the effective control of summer stress complex caused by a complex of *Rhizoctonia* and *Pythium* diseases, tank-mix ALUDE® with PROTECT T/O®\*\* or mancozeb-containing fungicide and apply to turfgrasses on golf courses, parks, commercial landscapes, commercial turf production, and sod farms.

Product	Disease	Rate per 1,000 sq. ft.	Application Program
ALUDE® + PROTECT T/O®** or mancozeb-containing fungicide	Summer Stress Complex ( <i>Rhizoctonia</i> and <i>Pythium</i> spp.)	5-10 fl. oz. ALUDE® + 4 to 8 fl. oz. PROTECT T/O®** or mancozeb-containing fungicide	Apply indicated quantity of product in 1 to 5 gallons of water per 1,000 sq. ft. as a foliar spray. Start as a preventive spray at two-week intervals and repeat as required. Do not irrigate or mow treated areas until spray has completely dried.

\*\*Registered trademark of Cleary Chemical Corp.

Do not graze animals on treated areas of turf. Do not feed treated turf clippings to poultry or livestock.

**STORAGE AND**

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

**PESTICIDE STORAGE:**

Keep this product in containers stored upright and secure away from any heat source. Do not store near strong oxidants. If the container is clearly labeled, the container is a type I or II pesticide material.

**PESTICIDE DISPOSAL:**

Wastes resulting from the use of this product must be disposed of in a sanitary landfill, or by incineration, or if all other methods are not available, by deep well injection.

**CONTAINER DISPOSAL:**

Do not reuse empty container. Triple rinse (or equivalent) and dispose of in a sanitary landfill, or by incineration, or if all other methods are not available, by deep well injection.

**NOTICE TO**

To the extent permitted by law, all conditions and warranties, express or implied, made by or for Cleary Chemical Corp. are hereby disclaimed. No other user may have against Cleary Chemical Corp. are hereby disclaimed. No other user may have against Cleary Chemical Corp. are hereby disclaimed. No other user may have against Cleary Chemical Corp. are hereby disclaimed.

diseases of BEDDING PLANTS such as, but not limited to Carnation, Chrysanthemum, Oxalis, Impatiens, Marigold, Vinca, Verbena, and Zinnia. Use proper management practices. Use application rates or apply more frequently if soil is dry or moisture stressed.

**Application Program**

Thoroughly wet all foliage. Repeat every 14 to 21 days.

Thoroughly wet all foliage. Repeat every 14 to 21 days.

Use more than 500 gallons of spray.

Use 100 gallons of solution to an area.

Use with irrigation.

Repeat application every month.

**CONIFERS AND FORESTS\***

Control of root rot (*Phytophthora*) and damping-off. Rate of application when disease is present.

Use in order to avoid plant injury.

**Application Program**

Thoroughly wet all foliage. Repeat every 14 to 21 days.

Use 100 gallons of solution per sq. yd. with irrigation. Repeat every 14 to 21 days.

(cont. on next page)

**ORESTS\* (cont.)****Application Program**

ly before transplanting, dip transplants  
utes; keep roots submerged and ensure  
is thoroughly wet.

ed forage from treated areas of plan-

grasses on golf courses, parks, com-  
avor disease, begin preventive appli-  
ise pressure is severe.

**Application Program**

sted quantity of product in 1 to 2 gallons of  
1,000 sq. ft. Ensure foliage is thoroughly

intervals: 14 to 21 days.  
required. Do not irrigate or mow treated  
spray has completely dried.

actonia and *Pythium* diseases, tank-  
o turfgrasses on golf courses, parks,

**Application Program**

ndicated quantity of product in  
gallons of water per 1,000 sq. ft. as a  
pray. Start as a preventive spray at  
week intervals and repeat as required.  
irrigate or mow treated areas until  
has completely dried.

poultry or livestock.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:**

Keep this product in containers stored upright and secured with the original closure. Do not store this product near any heat source. Do not store near strong oxidants. If transfer to another container becomes necessary, ensure that the container is clearly labeled, the container is a type suitable for the product, and is clean and free of other materials.

**PESTICIDE DISPOSAL:**

Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:**

Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, keep out of smoke.

**NOTICE TO BUYER:**

To the extent permitted by law, all conditions and warranties and statutory or other rights of action which buyer or any other user may have against Cleary Chemical Corp. are hereby excluded. Cleary Chemical Corp. hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information provided by Cleary Chemical Corp. or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. Cleary Chemical Corp.'s liability shall in all circumstances be limited to replacement of product or a refund of the purchase price thereof.

**ALUDE®**

Please read the entire document. This Material Safety Data Sheet (MSDS) provides you with important safety and health information for your employees, and anyone else who may be exposed to this product. Please make sure this information is given to them. Please follow all instructions on the label. For more information on MSDS reporting requirements, please contact your local regulatory agency. This MSDS must be given to the buyer or the importer.

**SECTION 1: PRODUCT**

**PRODUCT NAME:**  
**CLEARY PRODUCT CODE:**  
**EPA REGISTRATION NUMBER(S):**  
**CHEMICAL NAME:**

**COMPANY**

Cleary Chemical Corporation  
178 Ridge Road, Suite A  
Dayton, New Jersey 08810

CLE

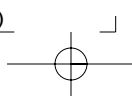
**SECTION 2: INFO**

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	%
Monopotassium phosphite and Dipotassium phosphite	

NOT CLASSIFIED AS HAZARDOUS

**SECTION 3: HEA****Acute Health Hazards**

**Swallowed:** Ingestions may cause diarr  
**Eye:** A mild irritant to eyes  
**Skin:** Mildly irritating to skin  
**Inhaled:** Nil  
**NFPA:** Health=0, Fire=0, Reactivit  
**HMIS:** Health=0, Fire=0, Reactivit



## DISPOSAL

Proper disposal. Do not store this product near an open flame. If the container becomes damaged, ensure the product is clean and free of other contaminants.

Dispose of at an approved waste disposal facility.

Do not recycle or reconditioning, or puncture and empty into local authorities, by burning. If burned,

or other rights of action which buyer or any other party may have against Cleary Chemical Corp. hereby gives notice that it is not intended to be a release of liability or consequential loss arising from reliance on this information unless it is established that such information was used strictly as directed. Cleary Chemical Corp. does not warrant the accuracy of the information or a refund of the purchase price.



# MATERIAL SAFETY DATA SHEET

## ALUDE®

Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ALUDE® Systemic Fungicide  
**CLEARY PRODUCT CODE:** 4420  
**EPA REGISTRATION NUMBER(S):** 71962-1-1001  
**CHEMICAL NAME:** Mono- and di-potassium salts of Phosphorous Acid

COMPANY	EMERGENCY TELEPHONE NUMBERS
Cleary Chemical Corporation 178 Ridge Road, Suite A Dayton, New Jersey 08810	CLEARY CHEMICAL CORP. <b>M-F 9-5 EST</b> <b>(800) 524-1662 OR</b> <b>(732) 329-8399</b>
	PROSAR: <b>(800) 324-7598</b> CHEMTREC 24 HOUR: <b>(800) 424-9300</b>

### SECTION 2: INFORMATION ON INGREDIENTS

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	% by Wt.	CAS #	ACGIH TLV	OSHA PEL
Monopotassium phosphite and Dipotassium phosphite	45.8	13977-65-6 13492-26-7	NA NA	NA NA

NOT CLASSIFIED AS HAZARDOUS

### SECTION 3: HEALTH HAZARD INFORMATION

#### Acute Health Hazards

**Swallowed:** Ingestions may cause diarrhea, nausea, vomiting and cramps  
**Eye:** A mild irritant to eyes  
**Skin:** Mildly irritating to skin  
**Inhaled:** Nil  
**NFPA:** Health=0, Fire=0, Reactivity=0  
**HMIS:** Health=0, Fire=0, Reactivity=0

NA = Not Applicable

### SECTION 4: FIRST AID MEASURES

**Swallowed:** Call a poison control center or hospital if able to swallow. Do not induce vomiting or use emetics on an unconscious person.

**Eye:** Hold eyelids open and rinse with plenty of water for the first 5 minutes, then continue rinsing eye.

**Skin:** Wash with plenty of water for 15 min.

### SECTION 5: FIRE FIGHTING MEASURES

**Flammability:** Not Flammable

**Combustion:** Not combustible

**Flash Point & Method:** NA

**Flammability Limits:** NA

**Special Fire-Fighting Procedures:** Some wear self-contained breathing apparatus. A

### SECTION 6: ACCIDENT AND SPILL/LEAK PROCEDURES

**Spill or Leak Procedures:** Stop leak if possible. Reclaim as much liquid as possible. Ventilate area. Collect in a closed and properly labeled waste drum for disposal after handling.

### SECTION 7: STORAGE AND HANDLING

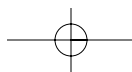
Store away from combustible materials. Store in a cool, dry place.

### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Avoid unnecessary contact with product. Use Pesticide Applicators, Mixers, and Loaders according to Agricultural Use Requirements in accordance with label directions.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance/Odor:</b>	Blue, odorless
<b>Boiling Point:</b>	222°F
<b>Vapor Pressure:</b>	Not determined
<b>Vapor Density:</b>	NE
<b>pH:</b>	5.5-6.0
<b>Melting Point:</b>	NA
<b>Freezing Point:</b>	>8°F
<b>Specific Gravity:</b>	1.35



# MATERIAL SAFETY DATA SHEET

contains important environmental, health and toxicology information to help you meet community right-to-know and many other laws. If you resell this product, this information must be incorporated in your MSDS.

## COMPANY IDENTIFICATION

Formic Fungicide

potassium salts of Phosphorous Acid

## EMERGENCY TELEPHONE NUMBERS

PROSAR:	(800) 324-7598
CHEMTREC 24 HOUR:	(800) 424-9300

## HAZARDOUS INGREDIENTS

CAS #	ACGIH TLV	OSHA PEL
13977-65-6	NA	NA
13492-26-7	NA	NA

## ADDITIONAL INFORMATION

ting and cramps

## SECTION 4: FIRST AID MEASURES

**Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by medical professionals. Do not give anything by mouth to an unconscious person.

**Eye:** Hold eyelids open and rinse with plenty of water for at least 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a doctor or poison control center for further treatment advice.

**Skin:** Wash with plenty of water for 15 minutes. Contact a doctor or poison control center for further treatment advice.

## SECTION 5: FIRE AND EXPLOSION INFORMATION

**Flammability:** Not Flammable

**Combustion:** Not combustible

**Flash Point & Method:** NA

**Flammability Limits:** NA

**Special Fire-Fighting Procedures:** Some gases such as phosphorous oxides may be released. In smoke or fumes, wear self-contained breathing apparatus. Advise fire brigade of any hazard, suitable for more extinguishing media.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Stop leak if possible. Contain product with an inert diking material such as clay or kitty litter. Reclaim as much liquid as possible. Vacuum or shovel up as much absorbent as possible. Place reclaimed product in a closed and properly labeled waste drum. Store drum until proper disposal can occur. Flush residue with water. Wash thoroughly after handling.

## SECTION 7: HANDLING AND STORAGE

Store away from combustible materials. Store in a temperature controlled, dry place.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Avoid unnecessary contact with product and remove all contaminated clothing. Wash hands and face before eating. Pesticide Applicators, Mixers, and Loaders must refer to the product label and directions for use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance/Odor:</b>	Blue, odorless liquid
<b>Boiling Point:</b>	222°F
<b>Vapor Pressure:</b>	Not determined
<b>Vapor Density:</b>	NE
<b>pH:</b>	5.5-6.0
<b>Melting Point:</b>	NA
<b>Freezing Point:</b>	>8°F
<b>Specific Gravity:</b>	1.35

## SECTION 10: HAZARDOUS INFORMATION

**General:** This material is stable under normal conditions.

**Incompatible Materials:** Avoid contact with oxidizing agents.

**Hazardous Decomposition:** Some hazardous gases may be released.

**Hazardous Polymerization:** Material does not polymerize.

## SECTION 11: TOXICOLOGICAL INFORMATION

**EPA Toxicity Category 3, Caution**

**Acute Inhalation:** >2 mg/L

**Eye Irritation:** Mild eye irritant

**Skin Irritation:** Non-irritant

**Acute Dermal:** >5000 mg/Kg

**Acute Oral:** >2000 mg/Kg

## SECTION 12: ENVIRONMENTAL INFORMATION

Not classified as Hazardous

## SECTION 13: DISPOSAL INFORMATION

Triple rinse empty container with water and local regulations.

## SECTION 14: TRANSPORT INFORMATION

Not DOT regulated

## SECTION 15: REGULATORY INFORMATION

Not regulated under US EPA SARA Title III  
Not regulated under California Proposition 65

## SECTION 16: OTHER INFORMATION

Please note: Cleary Chemical Corporation reserves the right to change the information on this label at any time without notice. The information on this label is valid where said product is used in accordance with the directions on the label to determine the suitability of the product for the intended use or any other use.

**Reason for issue:**

**Prepared by:**

**Effective date:**

**Replaces:**

**Document number:**

**ACCEPTED:** 01.28.03

**VERSION:** 01.21.07

**REPLACES:** 03.29.06

**FIRST AID MEASURES**

Seek medical attention immediately for treatment advice. Have a person sip a glass of water so by medical professionals. Do not give anything by mouth to an unconscious person.

Keep victim at least 15-20 minutes. Remove contact lenses, if present, after 15 minutes. Do not induce vomiting unless directed by a doctor or poison control center for further treatment advice.

**EXPLOSION INFORMATION**

None known. phosphorous oxides may be released. In smoke or fumes, use water or other extinguishing media.

**LEAK RELEASE MEASURES**

Contain spill with an inert diking material such as clay or kitty litter as much absorbent as possible. Place reclaimed product in a container for proper disposal. Flush residue with water. Wash container thoroughly.

**HAZARDOUS INGREDIENTS AND STORAGE**

Store in a cool, dry place.

**HAZARDOUS MATERIALS/PERSONAL PROTECTION**

Wash contaminated clothing. Wash hands and face before eating. Read the product label and directions for use attached to the product. Follow the EPA Worker Protection Standard 40 CFR part 170.

**PHYSICAL AND CHEMICAL PROPERTIES**


**SECTION 10: STABILITY AND REACTIVITY**

**General:** This material is stable under normal conditions.  
**Incompatible Materials:** Avoid contact with strong bases, strong oxidizing agents and metals. Product is corrosive to most.  
**Hazardous Decomposition:** Some gases such as phosphorous oxides may be released.  
**Hazardous Polymerization:** Material is not known to polymerize.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**EPA Toxicity Category 3, Caution**  
**Acute Inhalation:** >2 mg/L  
**Eye Irritation:** Mild eye irritant  
**Skin Irritation:** Non-irritant  
**Acute Dermal:** >5000 mg/Kg (rat)  
**Acute Oral:** >2000 mg/Kg (rat)

**SECTION 12: ECOLOGICAL INFORMATION**

Not classified as Hazardous

**SECTION 13: DISPOSAL CONSIDERATIONS**

Triple rinse empty container with water and add to spray mix. Dispose of container following appropriate Federal, State and local regulations.

**SECTION 14: TRANSPORTATION INFORMATION**

Not DOT regulated

**SECTION 15: REGULATORY INFORMATION**

Not regulated under US EPA SARA Title 3, Sec. 302, 311, 312, or 313  
 Not regulated under California Prop 65

**SECTION 16: OTHER INFORMATION**

Please note: Cleary Chemical Corp. believes that the information and recommendations contained herein are accurate as of the date hereof. The information provided herein applies only to the specific product designated and may not be valid where said product is used in combination with any other material or in any process. It is the user's responsibility to determine the suitability of the information for their purposes. No warranty of fitness for any particular purpose, warranty of merchantability, or any other warranty, expressed or implied, is made concerning the information provided.

<b>Reason for issue:</b>	New MSDS (New EPA Registration Number)
<b>Prepared by:</b>	R. Fletcher
<b>Effective date:</b>	04/03
<b>Replaces:</b>	NA
<b>Document number:</b>	4420

**ACCEPTED:** 01.28.03  
**VERSION:** 01.21.07  
**REPLACES:** 03.29.06



**SYSTEMIC FUNGICIDE FOR THE CONTROL OF ROT IN AVOCADO, BUD ROT IN LETTUCE, AND ONION, ANTHRACNOSIS IN STONEFRUIT, LEATHER ROT IN TOPHORA & PYTHIUM IN ORCHIDS AND PYTHUM DISEASES ASSO**

**ACTIVE INGREDIENTS:** Mono- and di-potassium silicate  
**OTHER INGREDIENTS:** ...  
**TOTAL:** ...  
 \*Contains 5.17 lbs./gallon c  
 Equivalent to 3.35 lbs. Pho

**KEEP**

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• C</li> <li>• H</li> <li>• D</li> <li>• E</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• H</li> <li>• R</li> <li>• C</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• T</li> <li>• R</li> <li>• C</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• M</li> <li>• If</li> <li>• r</li> <li>• C</li> </ul>

Have the product container and label when you call. You may also contact the National Pesticide Information Center at 1-800-858-7373.

**Manufactured for:**  
**CLEARY CHEMICAL CORPORATION**  
 178 Ridge Road  
 Dayton, NJ 08810-1501  
 Ph. (800) 524-1662  
 Fax (732) 274-0894  
[www.clearychemical.com](http://www.clearychemical.com)

**ABILITY AND REACTIVITY**

ions.  
g bases, strong oxidizing agents and metals. Product is corrosive to  
; phosphorous oxides may be released.  
to polymerize.

**ICOLOGICAL INFORMATION**

**COLOGICAL INFORMATION**

**SPOSAL CONSIDERATIONS**

spray mix. Dispose of container following appropriate Federal, State

**SPORTATION INFORMATION**

**REGULATORY INFORMATION**

2, 311, 312, or 313

**OTHER INFORMATION**

ne information and recommendations contained herein are accurate  
ein applies only to the specific product designated and may not be  
h any other material or in any process. It is the user's responsibility  
ir purposes. No warranty of fitness for any particular purpose, war-  
essed or implied, is made concerning the information provided.

New MSDS (New EPA Registration Number)
R. Fletcher
04/03
NA
4420



**SYSTEMIC FUNGICIDE FOR THE EFFECTIVE CONTROL OF VARIOUS PLANT DISEASES INCLUDING BLACK SPOT OR SCAB IN APPLE, ROOT ROT IN AVOCADO, BUD ROT AND NUT FALL IN COCONUT, ROOT ROT IN CITRUS AND CUCURBITS, DOWNY MILDEW IN CUCURBITS, GRAPE, LETTUCE, AND ONION, ANTHRACNOSE IN MANGO, ROOT AND HEART ROT IN PINEAPPLE, LATE BLIGHT IN POTATO, ROOT AND COLLAR ROT IN STONEFRUIT, LEATHER ROT AND PHYTOPHTHORA DISEASES IN STRAWBERRY, LATE BLIGHT IN TOMATO, DOWNY MILDEW, PHYTOPHTHORA & PYTHIUM IN ORNAMENTALS & BEDDING PLANTS, PHYTOPHTHORA IN CONIFERS, PYTHIUM IN TURF, AND PHYTOPHTHORA AND PYTHIUM DISEASES ASSOCIATED WITH STEM AND CANKER BLIGHT (SUDDEN OAK DEATH) AND GENERAL BEECH DECLINE.**

**ACTIVE INGREDIENTS:**  
Mono- and di-potassium salts of Phosphorous Acid\* ..... 45.8%  
**OTHER INGREDIENTS:** ..... 54.2%  
**TOTAL:** ..... 100.0%

\*Contains 5.17 lbs./gallon of the active ingredients, mono- and di-potassium salts of Phosphorous Acid.  
Equivalent to 3.35 lbs. Phosphorous Acid/gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<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>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact the National Poison Control Hotline at 1-800-222-1222, 24 hours a day, 7 days a week.

**Manufactured for:**  
**CLEARY CHEMICAL CORPORATION**  
178 Ridge Road  
Dayton, NJ 08810-1501  
Ph. (800) 524-1662  
Fax (732) 274-0894  
www.clearychemical.com



**NET CONTENTS: 2.5 Gallons**

**Accepted: 01.28.03**  
**Version: 01.21.07**  
**Replaces: 03.29.06**

**EPA Reg. No. 71962-1-1001**  
**EPA Est. No. 70815-GA-1**