

ALUDE™

SYSTEMIC FUNGICIDE

For effective control of various plant diseases including black spot or scab in apple, 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%

TOTAL100%

*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

- **IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
- **IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
- 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.

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 PROTECTION EQUIPMENT (PPE):

- Applicators and other handlers must wear protective eyewear, long pants and long-sleeved shirt, water-proof 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.



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EMERGENCY PHONE NUMBERS:

M-F 9AM-5PM ET
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24 Hour CHEMTREC
800-424-9300

EST NO.: 71962-AUS-001
EPA REG. NO.: 71962-1-1001

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Replaces: 1.28.03
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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 wash waters or rinsate.

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 REQUIREMENTS

The requirements of this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard 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. Do not enter treated areas without protective clothing until sprays have dried.

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.

CHEMIGATION

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

Apply this product only through center pivot, solid set or drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts. 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.

SPRINKLER AND DRIP (TRICKLE) IRRIGATION SYSTEMS: The irrigation 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. The pesticide injection pipeline must contain a functional, automatic, quick-closing valve to prevent the flow of fluid back toward the injection pump. 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. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the 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.

SPRINKLER CHEMIGATION ONLY: Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply ALUDE™ continuously for the duration of the water application. After treatment with ALUDE™ has been completed, avoid further irrigation of the treated area until foliage is dry or for 24 to 48 hours.

GENERAL APPLICATION INSTRUCTIONS

Apply ALUDE™ by various application methods, including foliar spray, soil drench, soil incorporation, basal bark application, and bare root dip. For foliar sprays, apply ALUDE™ with sufficient water volumes for adequate coverage of foliage, according to crop and growth stage. To ensure good coverage, spray to wetness, but avoid run-off.

MIXING INSTRUCTIONS

1. Fill the spray tank with $\frac{1}{4}$ - $\frac{1}{2}$ of the volume of water required before adding ALUDE™.
2. Add ALUDE™ slowly to the tank and agitate by mechanical or hydraulic means.
3. Continue agitating as tank fills with water to the desired volume.
4. Maintain agitation during application.

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 phytotoxicity 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 can be remixed readily, the tank mix is compatible. Spray the solution that resulted from the above compatibility test onto a few plants and inspected for visual effects of phytotoxicity (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 2 1/2" 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.
Root and collar rot (<i>Phytophthora cactorum</i>) Fire Blight (<i>Erwinia amylovora</i>)	Foliar spray	Apply at 1 1/4-2 1/2 quarts per acre with a maximum of 250 gallons 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.

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	1 1/2 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 plants 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 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
<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 (5mm) 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. Penta-Bark™ Bark Penetrating Surfactant	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 prevent-

Disease	Application Method	Rate	Application Program
			ative or curative application. Various types of application equipment can be used such as hydraulic sprayers, hand-held pump-type sprayers, backpack sprayers, hose-end applicators with backflow prevention devices, and other similar application devices.
Fire Blight	Foliar Spray	1 1/4 quarts per 100 gallons of water	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 and Pythium diseases of Ornamentals in landscapes, nurseries, golf courses, parks and greenhouses. Apply ALUDE™ to plants such as, but not limited to, Aglaonema, Anthurium, Aphelandra, Arbovitae, 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, landscape 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 recommended 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 recommended spray intervals or label rates as plant injury can occur.

Disease	Application Method	Rate	Application Program
Bacterial blight (<i>Xanthomonas campestris</i>) pathovars: <i>dieffenbachiae</i> , <i>fici</i> <i>hederae</i> and <i>syngonli</i>	Foliar spray	2 to 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		1 1/4 - 2 1/2 quarts per 100 gallons of water Or 2 1/2 - 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.	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.

Disease	Application Method	Rate	Application Program
	Soil drench	6 1/4 - 12 3/4 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, foliar spray or soil drench may be needed.
	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 root mass is thoroughly wet.

BEDDING PLANTS

ALUDE™ may be used for effective control of Downy mildew, Phytophthora and Pythium 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 recommended 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.

Disease	Application Method	Rate	Application Program
Downy Mildew	Foliar spray	1 1/4 - 2 1/2 quarts per 100 gallons of water Or 1/2 - 1 1/8 fl oz 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.	Foliar spray	1 to 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	6 1/4 - 12 3/4 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. Do not graze livestock in treated areas of conifer nurseries or plantations. Do not feed forage from treated areas of plantations and or nurseries.

Disease	Application Method	Rate	Application Program
<i>Phytophthora</i>	Foliar spray	1 to 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 to 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.
	Bare root dipping at transplanting	1 qt 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.

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 to 10 fl oz per 1000 sq ft	Apply indicated quantity of product in 1 to 2 gallons of water per 1000 sq ft. Ensure foliage is thoroughly wet. Application intervals: 14-21 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. Do not graze animals on treated areas of turf. Do not feed treated turf clippings to poultry or livestock.

Disease	Application Method	Rate	Application Program
ALUDE™ + Protect T/O™** or mancozeb-containing fungicide	Summer Stress Complex (<i>Rhizoctonia</i> and <i>Pythium</i> spp.)	5 to 10 fl oz ALUDE™ + 4 to 8 oz Protect T/O™	Apply indicated quantity of product in 1 to 5 gallons of water per 1000 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.

**Alude and Protect are Trademarks of Cleary Chemical Corp.

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 Agrichem Manufacturing Industries Pty Ltd are hereby excluded. Agrichem Manufacturing Industries Pty Ltd 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 Agrichem Manufacturing Industries Pty Ltd 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. Agrichem Manufacturing Industries Pty Ltd's liability shall in all circumstances be limited to replacement of product or a refund of the purchase price thereof.

LIMITED WARRANTY AND DISCLAIMER

CLEARY CHEMICAL CORPORATION warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the risks referred to therein. CLEARY CHEMICAL CORPORATION makes no other expressed or implied warranty of fitness or merchantability or any other expressed or implied warranty. In no case shall CLEARY CHEMICAL or seller be liable for consequential, special or indirect damages resulting from the use or handling of this product including, but not limited to, loss of profits, business reputation, or customers, labor costs, or other expenses incurred in planting or harvesting. CLEARY CHEMICAL and seller offer this product and the buyer and user accept it subject to the foregoing conditions of sale and warranty which may be varied only by agreement in writing signed by a duly authorized representative of CLEARY CHEMICAL CORPORATION.



CLEARY CHEMICAL CORPORATION

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**Manufactured Exclusively for
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