# POLYPHASE<sup>®</sup>AF-1

# Commercial Solution

Fungicide for Solvent and Water-Based Systems

Products containing this antimicrobial pesticide are not to be used in food packaging materials or food contact products.

REGISTRATION NO. 21751 PEST CONTROL PRODUCTS ACT ACTIVE INGREDIENT: 3-Iodo-2-Propynyl Butyl Carbamate.....40%

POST A COPY OF THIS LABEL IN THE TREATMENT AREA



# DANGER POISON CORROSIVE Danger – corrosive to skin and eyes

NET CONTENTS:

TROY CHEMICAL CORPORATION ONE AVENUE L NEWARK, NJ 07105 (973) 589-2500 In Canada (Phone): 1-905-760-7902

READ THE LABEL BEFORE USING KEEP OUT OF REACH OF CHILDREN AND/OR PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

#### **PRECAUTIONS:**

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

- Wear chemical-resistant coveralls over long-sleeved shirt and long pants, chemicalresistant gloves, goggles or face shield, socks, and chemical-resistant footwear when handling the concentrate or during mixing/loading, clean-up, maintenance and repair activities.
- Use a NIOSH-respirator if the area is not well ventilated or if airborne exposure levels are above the occupational exposure limit(s), as determined by air sampling.
- Use a NIOSH-respirator during clean-up, maintenance and repair activities when working in/on application equipment or if airborne material (e.g. dust, mist/spray) may be generated when working in the treatment area.
- When piling freshly treated lumber, handling treated lumber that has not fully dried, or if there is a potential for getting wet by the treating solution during other activities in the sawmill, wear chemical-resistant coveralls or a chemical-resistant apron over longsleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear.
- When handling freshly treated wood, handling treated wood that has not fully dried, or if there is a potential for getting wet by the treating solution during other activities, wear chemical-resistant coveralls or a chemical-resistant apron over long- sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear.
- When working in the application area, wear long-sleeved shirt, long pants, chemicalresistant gloves, socks and boots. Wear goggles or face shield if there is a possibility of splashing.
- When working in the dip or spray area, wear long-sleeved shirt, long pants, chemicalresistant gloves, socks and boots. Wear goggles or face shield if there is a possibility of splashing.
- Once dry, the treated wood can be handled with cotton or leather gloves.
- Wash hands and face before eating & drinking, smoking and using the toilet. Change clothes daily. Wash contaminated clothing separately from household laundry. Not for use or storage in or around the home. Clean contaminated equipment thoroughly prior to making welding repairs.

# STORAGE AND HANDLING:

Polyphase<sup>®</sup> AF-1 should be stored at temperatures below 0°C (32°F). Store drums in upright position with all bungs tightly closed. Complete safety and handling information will be found in the material safety data sheet. To prevent contamination store this product away from food or feed.

# DISPOSAL:

- 1. Triple-or pressure-rinse the empty container. Add the rinsings to the treatment site.
- 2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.
- 5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### FIRST AID:

**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 centre 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 centre or doctor for treatment advice.

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**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 centre or doctor for further treatment advice.

Take container, label or product name and the Pest Control Product Registration Number with you when seeking medical attention.

#### TOXICOLOGICAL INFORMATION:

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. Avoid Alcohol.

#### PHYSICAL AND CHEMICAL HAZARDS:

Do not use, pour, spill or store near heat or open flame.

#### **ENVIRONMENTAL PRECAUTIONS:**

TOXIC to aquatic organisms. This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

#### **DIRECTIONS FOR USE:**

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

This product is TOXIC to aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. The requirements of applicable laws should be determined before using the product.

Dip tanks and drip aprons must be roofed, paved and drained to prevent dilution and loss of treatment solution.

Store treated lumber on a roofed drip pad until dripping has ceased. Slope lumber on the drip pad to expedite drainage and to ensure that no puddles remain on the surface of the wood. Manage drippage and other related wastes to prevent release in the environment.

DO NOT expose treated lumber to rains immediately after treatment.

For further information on storage, handling, and disposal of treated wood, contact the manufacturer of this product or the provincial regulatory agency.

#### **USE LIMITATIONS:**

DO NOT use Polyphase AF-1 treated wood and paper/paperboard for the construction of food handling containers or surfaces in direct food contact.

DO NOT use for plastic for toys.

DO NOT use for textiles for apparel.

DO NOT use on any fabric where prolonged skin contact may occur. Treated textiles preserved with iodocarb are not to be used in residential settings where bystanders such as children may potentially contact treated textiles. This includes around homes, schools, parks, playgrounds, playing fields, public buildings or any other areas where the general public including children could be exposed. DO NOT contaminate irrigation or drinking water supplies for aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT discharge effluents containing this product into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters.

#### **APPLICATION:**

Polyphase AF-1 is a fungicide for solvent and water-based systems. In order to determine the most cost effective use level for Polyphase<sup>®</sup> AF-1 in a given end use, field trials are suggested. The following use levels (% product by weight) are for the addition of Polyphase AF-1 to various commodities:

Adhesives: 0.05-0.2% Canvas/cordage: 0.5-2.0% Inks: 0.05-3.0% In-can preservation: 0.2-0.5% Metal Working Fluids: 0.05-0.5% Paints and stains (exterior): 0.4-2.0% Paints and stains (interior): 0.1-0.4% Plastic (PVC): 0.5-2.5%

Textiles: 0.1-1.0% Wood protective stains: 0.8-1.2% For wood use (above ground only) generally use 0.5-2.0%. For millwork or sapstain use rates are: -millwork: 0.75-1.25% -sapstain: 0.75% (target deposition of 34-51µg IPBC/cm<sup>2</sup>)

Polyphase AF-1 may be used in conjunction with tank mixes for wood preservation.

# PAINTS AND STAINS

Polyphase<sup>®</sup> AF-1 will generally impart protection when used at levels of between 0.4-1.2% based on the total formula weight. More may be required in hot, humid areas where mildew is a particularly severe problem, up to a maximum of 2.0%.

For interior paints, because of the reduced fungal hazard, levels of 0.1-0.4% will usually be adequate.

For wood protective stains, which are used in both interior and exterior applications, levels of 0.8-1.2% based on formula weight are suggested, depending on the type of protection desired. If protection against wood destroying fungi is required, then a level of 1.2% is sufficient. If protection against blue stain and mold fungi is required, then a level of 0.8-1.0% is sufficient.

Polyphase<sup>®</sup> AF-1 will impart in-can and surface film fungicidal protection at levels of 0.2-0.5% based on formula weight. Once applied, the surface film will prevent the growth of decay fungi, staining fungi and surface mold. This protection stabilizes the surface against the effects of moisture and reduces dimensional change that can cause swelling, warping and splitting.

# PLASTICS

Polyphase<sup>®</sup> AF-1 may be used in polyvinyl chloride plastics to prevent surface mildew growth on items such as shower curtains, tarpaulins, umbrellas, etc. Levels of 0.5-2.5% of the weight of the plastic are generally adequate. It is suggested that Polyphase<sup>®</sup> AF-1 be dispersed in the plasticizer before it is incorporated into the resin. (Use of Polyphase<sup>®</sup> AF-1 is not suggested if processing entails treatment above 177°C (350°F) for prolonged periods of time, nor should it be used in a polyvinyl chloride plastic that will be in contact with food.)

# **CUTTING OILS**

Polyphase<sup>®</sup> AF-1 may be used in metal working fluids to prevent fungal growth at concentrations of 0.05-0.5%. It should be added to the cutting fluid concentrate in amounts sufficient to yield the desired concentration in the diluted composition. It is suggested that biocide levels be checked periodically, as many cutting oils are unstable upon standing.

# WOOD

Polyphase<sup>®</sup> AF-1 may be applied in solvent solutions or aqueous dispersions to new lumber, to prevent the growth of mildew, sapstain, and wood destroying fungi. Recommended for above ground use only. Treating solutions may be prepared by diluting Polyphase<sup>®</sup> AF-1 in organic solvents or by creating a water emulsion. Levels of 0.5-2.0% Polyphase<sup>®</sup> AF-1 are suggested depending on the type of protection required, severity of conditions for the end use, and the duration of time protection is required. All products should be field tested in order to ensure that the most cost-effective level of Polyphase<sup>®</sup> AF-1 is being used.

#### SAPSTAIN CONTROL

For the prevention of the growth of blue stain and mold fungi on freshly sawn lumber, use a concentration of 0.3% active ingredient to achieve a target retention rate of 34-51 µg IPBC/cm<sup>2</sup>. Formulations will usually be based on aqueous dispersions and emulsions. Lumber should be dipped for a duration of one to three minutes in order to achieve the maximum penetration into wood. For best results, lumber should be treated within 24 hours after it is sawed. This product can only be applied by spraybox application technology (e.g. Linear, transverse or carwash sprayboxes or diptank application technology).

#### MILLWORK

Polyphase<sup>®</sup> AF-1 is suggested for use on wood joinery products including window and door components or exterior non-structural decorative wood joinery items that are not in ground contact. The suggested use rate is 0.75 to 1.25 percent based on the final formula weight. Do not use on wood products that may come in contact with food, feed or drinking water. Machine, cut, glue and sand wood as desired prior to treating. Do not apply over previously finished or stained wood. Wood must be clean and dry. Engineered ventilation systems may be required to remove solvent vapors during treatment, mixing or drying. Apply this product by the following methods:

- a) Double vacuum system (closed system). Wood should be dry to the touch upon removal from the treating chamber. Use a treating schedule which achieves adequate distribution of the active to meet market standards or customer specifications.
- b) Bundle dipping or other immersion methods which utilize automated technology (3 minute minimum treatment).
- c) Flood coating, roller coating or for coating using automated technology (15 second minimum treatment).
- d) Spray box automated technology (treating parameters appropriate for the specific unit and substrate).

**Finishing:** Prior to top-coating with paint, varnish or other materials, the wood must be free of residual solvent. Allow four to eight hours under ambient temperature, 20°C, or less drying time if accelerated drying methods are used. Polyphase<sup>®</sup> AF-1 may be added to either solvent or water. It should be added at the end of the formulation process at a level of 0.75% to 1.25% based on the weight of the final product. Field trials are suggested as a means of determining the appropriate level to achieve protection.

Polyphase<sup>®</sup> AF-1 may also be used in the preparation of ready to use products or manufacturing concentrates as long as the end use concentration does not exceed a level of 0.75 to 1.25% based on the final formula weight. As with on-site use, Polyphase<sup>®</sup> AF-1 is best added at the end of the formulation process.

# TEXTILES

Polyphase<sup>®</sup> AF-1 may be used as a mildewcide in both aqueous and solvent based coatings or dyes that are applied to the textile material. Typical end uses of these materials are in such areas as carpets, canvas and cordage, drapes, shower curtains, etc.

Polyphase<sup>®</sup> AF-1 should not be used in fabric for human wear. Polyphase<sup>®</sup> AF-1 should be added at the end of the production cycle of the coating or dye. Polyphase<sup>®</sup> AF-1 will normally impart protection to the substrate when added at levels of 0.1-1.0% based on the total formula weight.

# PAPER COATINGS

Polyphase<sup>®</sup> AF-1 may be used as a mildewcide in both aqueous and solvent based coatings that are applied to paper. Examples of such paper coatings are corrugated cardboard and soap wrappers. Polyphase<sup>®</sup> AF-1 should be added at the end of the manufacturing cycle of these coatings with good agitation.

Polyphase<sup>®</sup> AF-1 will generally impart protection to the substrate when added at levels of 0.05-0.2% based on the total weight of the formulation.

# CANVAS AND CORDAGE

Polyphase<sup>®</sup> AF-1 may be used as a mildewcide in both aqueous and solvent based formulations that coat canvas and cordage substrates. Polyphase<sup>®</sup> AF-1 should be added at the end of the production cycle of the coating with good agitation.

Polyphase<sup>®</sup> AF-1 will generally impart protection to the substrate when added at levels of 0.5-2.0% based on the formula weight.

# INKS

Polyphase<sup>®</sup> AF-1 may be used in aqueous based ink solutions for protection against the attack of fungal organisms. It is suggested that Polyphase<sup>®</sup> AF-1 be added at the end of the production cycle. Polyphase<sup>®</sup> AF-1 will generally impart protection when used at levels of 0.05-3.0% based on the formula weight.

# ADHESIVES

Polyphase<sup>®</sup> AF-1 can be used as an additive to caulk and adhesive formulations to prevent the growth of fungal organisms in the material in both the wet stage and once the film has dried. Suggested levels are between 0.05-0.2% based on the formula weight. Polyphase<sup>®</sup> AF-1 should be added toward the end of the production cycle with good agitation.

#### NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offense under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.