

67071-6

3/21/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

Thor GmbH  
Landwehrstrasse 1  
D-67346,  
Speyer, Germany

MAR 21 2013

**AGENT: Acti-Chem Specialties, Inc.**  
**56 Quarry Road**  
**Trumbull, CT 06611**

Attention: Lynn P. Tordo, MS.  
Regulatory Manager

Subject: ACTICIDE® 45  
EPA Registration No. 67071-6  
Notification Dated February 7, 2013

This will acknowledge receipt of your notification, submitted under the provisions of FIFRA Section 3(c)(9).

**Proposed Notification**

- Label Changes as required by the State of California

**General Comments**

Based on a review of the submitted material, the following comments apply:

The Notification is in compliance with PR Notice 98-10 and is acceptable. This information has been added to your file.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6341.

Sincerely,

A handwritten signature in cursive script that reads "Martha Terry".

Marshall Swindell  
Product Manager (33)  
Regulatory Management Branch 1  
Antimicrobials Division (7510P)



United States  
Environmental Protection Agency  
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

### Application for Pesticide - Section I

1. Company/Product Number 67071-6	2. EPA Product Manager Marshall Swindell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Thor GmbH / ACTICIDE 45	PM# 33	
5. Name and Address of Applicant (Include ZIP Code) Thor GmbH, Landwehrstrasse 1, D-67346, Speyer, Germany U.S. Agent: Thor Specialties, Inc. 50 Waterview Drive, Shelton CT 06484  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. <u>67071-6</u>  Product Name <u>ACTICIDE 45</u>	

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change as required by the State of California and per PR Notice 98-10 / 95-2. This notification is consistent with the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA

### Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	Other (Specify) _____	
3. Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 5, 55, and 265 gallons		5. Location of Label Directions <input checked="" type="checkbox"/> on labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled			<input type="checkbox"/> Other _____		

### Section - IV

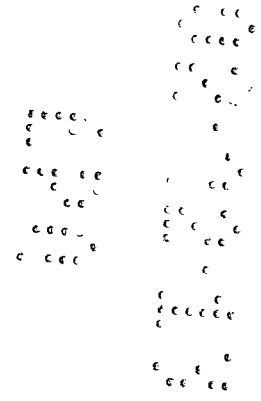
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Lynn P. Tordo, M.S.	Title Regulatory Manager	Telephone No. (Include Area Code) 203-516-6980
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  <b>(Stamped)</b>
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Lynn P. Tordo, M.S.	5. Date Feb. 7, 2013	



February 7, 2013

Mr. Marshall Swindell, Product Manager 33  
Regulatory Management Branch I  
Antimicrobial Division, OPP (751OW)  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Re: Product: ACTICIDE® 45, EPA Registration No. 67071-6  
Notification of label change  
Company: Thor GmbH;  
US Agent: Thor Specialties, Inc



**This is a notification and not subject to fees**

Dear Mr. Swindell:

This label change notification is submitted by Thor Specialties, Inc., U.S. agent for Thor GmbH. This notification of label change is as required by the State of California and per PR Notice 98-10 / 95-2.

The State of California requested that we submit this notification with regards to the addition or removal of the qualifier "\*\*not approved for use in the state of California". The acceptance of this label at the DPR is pending EPA's acceptance of the modified formatting.

Modifications have been made to the Container label only:

- a) The symbol preceding the first aid instructions has been changed so as not to confuse the user. The asterisk (\*) is intended to be the qualifier "\*\*Not approved for use in the state of California"; whereas, the symbol > is intended to precede and bring attention to the first aid instructions
- b) A qualifier (\*) has been added to the front of the following uses which are not currently approved for use in California: **\*sapstain control** and **\*Building Materials**
- c) A qualifier (\*) has been removed from the front of the following use now approved in California: **wood coating solutions**

The attached material consists of the following:

- 1. Application Form for a Notification to modify the label.
- 2. Copy of ACTICIDE® 45 label with changes marked (FOR REFERENCE ONLY)
- 3. Final Printed label for ACTICIDE® 45

If you have any questions or need added information, please contact me at your convenience.

Sincerely,

Lynn P. Tordo, M.S.  
Regulatory Manager

Enc.

Cc: Geri Werdig, Pesticide Registration Associates



**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and wildlife. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this pesticide only as specified on this label.

**STORAGE AND DISPOSAL**

Do not contaminate food or feed by storage, disposal or cleaning of equipment. **STORAGE DISPOSAL:** Do not store or transport in unlined metal containers. Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL**

Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: [For containers < 5 gallons in size] - Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. [For containers > 5 gallons in size] - Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**GENERAL CONSULT FEDERAL STATE OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES.**

**CONDITIONS OF SALE AND WARRANTY**

Thor GmbH warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. THOR GMBH MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of Thor GmbH and Seller. Risks such as ineffectiveness or other unintended consequences resulting from, but not limited to, failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL THOR GMBH OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

**ACTICIDE® 45**

**ACTIVE INGREDIENT:**

2-n-Octyl-4-isothiazolin-3-one 46.5%

**INERT INGREDIENTS:**

53.5%

**TOTAL:**

100.0%

**Precautionary Statements:**  
**Hazards to Humans and Domestic Animals**

**DANGER**

**CORROSIVE.** CAUSES PERMANENT, IRREVOCALE EYE DAMAGE AND SKIN BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE FATAL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN OR INHALED. PROLONGED OR REPEATED OVEREXPOSURE CAN CAUSE CENTRAL NERVOUS SYSTEM EFFECTS AND KIDNEY AND LIVER DAMAGE. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. WEAR GOGGLES OR FACE SHIELD. WEAR PROTECTIVE CLOTHING AND RUBBER GLOVES. AVOID BREATHING VAPOR OR MIST. KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND EATING, DRINKING, OR USING TOBACCO.

**DIRECTIONS FOR USE**

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

**ACTICIDE® 45** is an industrial microbicide to be used for the protection of paint films; coatings; including wood coatings and wood coating solutions including \*sapstain control; adhesives; \*Building Materials including \*sealants; \*mastics; \*caulks; \*joint cements; \*spackling; \*stucco; \* grouts; \* applied film/wet state of adhesives, tackifiers, paints, coatings and other building materials; \*hides; \*leather; \*textiles; \*fibers; \*fabrics; \*plastic/PVC/vinyl products; \*Metalworking Fluids; \*Hydraulic Fluids against attack by mildew, and fungus. **READ AND FOLLOW THE DIRECTIONS FOR USE ON THE ACCOMPANYING INFORMATION SHEET.**

\* Not approved for these uses in the State of California

**EPA Reg. No. 67071-6**

Manufactured For/By: Thor GmbH  
D-67346 Speyer, Germany  
Tel. (06232) 6360

**EPA Est. No. 67071-DEU-001**

U.S. Office: Thor Specialties, Inc.  
50 Waterview Drive  
Shelton, CT 06484 USA  
Tel. (203) 516-6980

**UN 2922, CORROSIVE LIQUID, TOXIC, N.O.S.**  
**(2-Octyl-2H-isothiazol-3-one), 8+6.1, PG-II**

**For Transportation / Spills Emergency:**  
**Call Chemtrec at 1-800-424-9300**

**KEEP OUT OF REACH OF CHILDREN**

**DANGER - PELIGRO**

See Side panel for additional precautionary statements

**FIRST AID**

<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>&gt; Call a poison control center or doctor immediately for treatment advice.</li> <li>&gt; Have person sip a glass of water if able to swallow.</li> <li>&gt; Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>&gt; Do not give anything by mouth to an unconscious person</li> </ul>
<b>If on Skin:</b> <b>Or Clothing</b>	<ul style="list-style-type: none"> <li>&gt; Take off contaminated clothing.</li> <li>&gt; Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>&gt; Call a poison control center or doctor for treatment.</li> </ul>
<b>If Inhaled:</b>	<ul style="list-style-type: none"> <li>&gt; Move person to fresh air.</li> <li>&gt; If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>&gt; Call a poison control center or doctor for further treatment.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <li>&gt; Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>&gt; Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>&gt; Call a poison control center or doctor for treatment advice.</li> </ul>

**HOT LINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor, or going for medical treatment information. You may also contact 1-800-424-9300 for emergency treatment information.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

**Mfg Date:**

**Net Contents (pounds):**

**Batch:**

**NOTIFICATION**  
Date Reviewed: 3/8/13  
Reviewed By: [Signature]

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# ACTICIDE® 45 INFORMATION SHEET



**THIS ACTICIDE® 45 INFORMATION SHEET MUST ACCOMPANY EACH SHIPMENT OF ACTICIDE® 45**

## DIRECTIONS FOR USE

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

**DRY FILM PRESERVATIVE FOR PAINTS, COATINGS, WOOD COATINGS, WOOD COATING SOLUTIONS (INCLUDING \*SAPSTAIN CONTROL):** ACTICIDE® 45 mildewcide is recommended for the control of fungi in latex and oil-based paints, coatings-(non-food contact).

The amount of ACTICIDE® 45 needed to protect dry and the applied/wet-states of paint films and wood coatings varies with the type of formulation and exposure conditions of the film (e.g., indoor vs. tropical climates). Add 0.02 - 0.29% (wt) [0.02 - 0.29 lbs of ACTICIDE® 45 per 100 pounds of formulation]. The Thor Specialties Technical Department will assist in the determination of the optimum quantity required by your product. This facility is especially helpful where a formulation has a greater than usual susceptibility to microbiological spoilage and/or is to be used in an area where the environmental conditions are particularly conducive to fungal growth.

ACTICIDE® 45 may be used at higher concentrations so long as the end-use product/article contains a maximum concentration of not greater than 1320 ppm OIT

\*To control sapstain on debarked logs and lumber, prepare a working solution by mixing with water at a rate of 1 to 5 quarts of ACTICIDE® 45 per 250 gallons of water. The working solution must be mixed thoroughly before and during use. Apply the working solution with a spray or dip system that coats all surfaces of the wood evenly and thoroughly. Treated wood must not be used or placed where it may contact food or animal feed.

\*Not approved for this use in the State of California

**DRY FILM PRESERVATIVE FOR ADHESIVES:** ACTICIDE® 45 mildewcide is recommended for the control of fungi in adhesives (non-food contact).

The amount of ACTICIDE® 45 needed to protect dry and the applied/wet-states of industrial adhesives varies with the type formulation. Add 0.02 - 0.29% (wt) [0.02 - 0.29 lbs of ACTICIDE® 45 per 100 pounds of formulation]. The Thor Specialties Technical Department will assist in the determination of the optimum quantity required by your product. This facility is especially helpful where formulation has a greater than usual susceptibility to microbiological spoilage and/or is to be used in an area where the environmental conditions are particularly conducive to fungal growth.

**DRY FILM PRESERVATIVE FOR BUILDING MATERIALS (INCLUDING \*SEALANTS, \*MASTICS, \*CAULKS, \*JOINT CEMENTS; \*SPACKLING; \*STUCCO; \*GROUTS:** ACTICIDE® 45 mildewcide is recommended for the control of fungi in Building Materials (non-food contact).

\*Not approved for these uses in the State of California

The amount of ACTICIDE® 45 needed to protect dry and the applied/wet-states of Building Materials varies with the type formulation and exposure conditions of the film (e.g., indoor vs. tropical climates). Add 0.02 - 0.29% (wt) [0.02 - 0.29 lbs of ACTICIDE® 45 per 100 pounds of formulation]. The Thor Specialties Technical Department will assist in the determination of the optimum quantity required by your product. This facility is especially helpful where a formulation has a greater than usual susceptibility to microbiological spoilage and/or is to be used in an area where the environmental conditions are particularly conducive to fungal growth.

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# ACTICIDE<sup>®</sup> 45 INFORMATION SHEET



**THIS ACTICIDE<sup>®</sup> 45 INFORMATION SHEET MUST ACCOMPANY EACH SHIPMENT OF ACTICIDE<sup>®</sup> 45**

## DIRECTIONS FOR USE

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

**\*APPLIED FILM/WET STATE PRESERVATIVE:** ACTICIDE<sup>®</sup> 45 microbiocide is recommended for the control of bacteria and fungi in the applied film/wet state of adhesives, tackifiers, paints, coatings and building materials (such as fire-proofing and sound-proofing coatings) for the purpose of protecting the applied film/wet state prior to a full cure. \*Not approved for these uses in the State of California

**\*LEATHER PRESERVATION:** ACTICIDE<sup>®</sup> 45 is recommended for the prevention of bacterial and fungal growth on wet leather stock such as pickled, chrome-tanned and vegetable-tanned hides and leather, including wet-blues. Normal addition levels are in the range of 0.014% - 0.06% by weight of ACTICIDE<sup>®</sup> 45 calculated on the pelt weight. The optimum use concentrations will depend on the manufacturing process, the required properties of the product and the environment to which it will be exposed. Levels will be particularly affected by natural fat content, skin thickness, storage time and tannery conditions. \*Not approved for these uses in the State of California

**\*TEXTILE, \*FIBER AND \*FABRIC PRESERVATION:** ACTICIDE<sup>®</sup> 45 is recommended for the prevention of bacterial and fungal growth, in the presence of moisture, in/on fibers, textiles and fabrics, including carpets and backing materials, natural and man-made. Normal addition levels are in the range of 0.1%-0.25% by weight of ACTICIDE<sup>®</sup> 45 calculated on the materials weight. The optimum use concentrations will depend on the manufacturing process, the properties of the product and the environment to which it will be exposed. Levels will be particularly affected by the fabric thickness, proximity to the air circulation, storage time and ambient humidity. \*Not approved for these uses in the State of California

**\*PRESERVATION OF PLASTIC/PVC/VINYL PRODUCTS:** ACTICIDE<sup>®</sup> 45 mildewcide is recommended for the control of mildew and fungi in PVC flooring and wall coverings, coated fabrics for upholstery, interior automotive parts, refrigerator gaskets, shower curtains, mattress covers, artificial leather, rain wear, protective wear, shoes, boots, PVC slippers and gloves. For these uses, generally not subject to continuous external environmental conditions, use 0.1%-0.5% of ACTICIDE<sup>®</sup> 45 based on the total weight of the formulation/composition (or 0.05% to 0.5% based on plastisol).

ACTICIDE<sup>®</sup> 45 is also recommended in situations generally subject to external environmental variations such as use in automotive landau tops, external automotive trim, tarpaulins, tents, awnings, indoor/outdoor carpeting, garden hoses, pool and pond liners, marine upholstery, swimming pool liners, roof liners, lining foils, cable casings, PVC tiles and fibers. For these external-type uses apply 0.15%-0.75% of ACTICIDE<sup>®</sup> 45 based on the total weight of the formulation/composition (4.35 lbs/1000 lbs. of compound).

Mode of application for plastic/PVC/Vinyl Products. ACTICIDE<sup>®</sup> 45 can, in most of the standard methods of plastics production, be introduced in different phases of the process cycle. An absolutely homogeneous incorporation into the material is essential for a good antimicrobial (anti-fungal) activity. The mixture of the product with fluid additives should be ensured by the use of a good mechanical stirring device. The product may never be introduced directly into fillers and pigments. ACTICIDE<sup>®</sup> 45 is first dissolved in the plasticizer. Subsequently, the rest of the additives are mixed in and homogeneously worked together. The product can also be homogeneously distributed in finished plastisols by intensive mixing. \*Not approved for these uses in the State of California

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# ACTICIDE<sup>®</sup> 45 INFORMATION SHEET



**THIS ACTICIDE<sup>®</sup> 45 INFORMATION SHEET MUST ACCOMPANY EACH SHIPMENT OF ACTICIDE<sup>®</sup> 45**

## DIRECTIONS FOR USE

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

**\*METALWORKING FLUID PRESERVATION:** ACTICIDE<sup>®</sup> 45 is recommended for the control of fungi in the manufacture and use of soluble, synthetic, and semi-synthetic metalworking fluids. ACTICIDE<sup>®</sup> 45 is not recommended for use in systems or fluids which are subject to foaming or systems with high levels of tramp oil. ACTICIDE<sup>®</sup> 45 should be directly dispensed into the metalworking concentrate or use-dilution metalworking fluid using a metered pump or other point-of-use device and uniformly dispersed throughout the liquid. Greatly contaminated systems must be cleaned before treatment is begun. **\*Not approved for these uses in the State of California**

### FLUID CONCENTRATES:

ACTICIDE<sup>®</sup> 45 should be added to the metalworking concentrate at a level to ensure that the final use-dilution fluid will contain 55-167 ppm of product (25-75 ppm active ingredient).

### USE-DILUTION FLUID:

For a noticeably fouled system, add 0.47 – 1.44 pounds of ACTICIDE<sup>®</sup> 45 per 1,000 gallons of emulsion. This will provide 25-75 ppm active ingredient. Repeat until control is achieved. For maintenance of a non-fouled system, add 0.09 – 0.58 pounds of ACTICIDE<sup>®</sup> 45 per 1,000 gallons of emulsion every 4 weeks. This will provide 5-30 ppm active ingredient. A higher dose range and/or increased frequency of treatment may be required, depending upon rate of dilution of the preservative with the makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

**\*HYDRAULIC FLUID PRESERVATION:** ACTICIDE<sup>®</sup> 45 is recommended as a preservative in the manufacture and use of soluble oils, high water-based and emulsion hydraulic fluids. ACTICIDE<sup>®</sup> 45 should be directly dispensed into the hydraulic concentrate or use-dilution hydraulic fluid using a metered pump or other point-of-use device and uniformly dispersed throughout the fluid. Greatly contaminated systems must be cleaned before treatment is begun. **\*Not approved for these uses in the State of California**

### FLUID CONCENTRATES:

ACTICIDE<sup>®</sup> 45 should be added to the hydraulic fluid concentrate at a level to ensure that the final use-dilution fluid will contain 55-167 ppm of product (25-75 ppm active ingredient).

### USE-DILUTION FLUID:

For a noticeably fouled system, add 0.47 – 1.44 pounds of ACTICIDE<sup>®</sup> 45 per 1,000 gallons of emulsion. This will provide 25-75 ppm active ingredient. Repeat until control is achieved. For maintenance of a non-fouled system, add 0.09 – 0.58 pounds of ACTICIDE<sup>®</sup> 45 per 1,000 gallons of emulsion every 4 weeks. This will provide 5-30 ppm active ingredient. A higher dose range and/or increased frequency of treatment may be required, depending upon rate of dilution of the preservative with the makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.