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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG 2 7 1999

Thor Chemie GMBH Landwehrstrasse 1 D-67346 Speyer, Germany

Attn: Gerie Werdig, Manager Regulatory Affairs

Subject: Acticide 45

EPA Registration No. 67071-6

Acticide OIT EPA Registration No. 67071-7

Letter Dated November 11, 1998

The Agency is in receipt of your submitted final printed label based on the previouslyly accepted draft label dated July 21, 1999. The label has been placed in your product file and not reviewed in accordance with PR Notice 82-2.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6217.

Sincerely,

Marshall Swindell

Product Manager 33

Regulatory Management Branch 1 Antimicrobial Division (7510C)

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CONCURRENCES

SYMBOL SURNAME

DATE

EPA Form 1320-1A (1/90)

Printed on Recycled Paper

OFFICIAL FILE COPY



NOT REVIEWED
In Accordance with PR Notice #2-2.
Based on Draft Labeling Dated

ACTICIDE® 45

MILDEWCIDE

ACTICIDE® 45 is an industrial microbiocide to be used for the protection of paint films, coatings and adhesives against attack by mildew.

ACTIVE INGREDIENT:

| 2-n-Octyl-4-isothiazolin-3-one | 46.5% |
|--------------------------------|--------|
| INERT INGREDIENTS: | 53.5% |
| TOTAL: | 100.0% |

KEEP OUT OF REACH OF CHILDREN DANGER

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting. Avoid alcohol.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF IN EYES: Hold eyelids open and flush with steady, gentle stream of water for 15 minutes. Get medical attention.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 67071-6

Manufactured By/For: Thor Chemie GmbH D-67346 Speyer, Germany Tel. (06232) 6360 EPA Est. No. 67071-EN-001 U.S. Office: ACTI-CHEM Specialties, Inc. 56 Quarry Road Trumbull, CT 06611 U.S.A. Tel. (203) 365-6530

| NOT FOR SALE OR USE AFTER 12 MONTHS FRO | OM DATE OF MANUFACTURE. | |
|---|-------------------------|--|
| Net Contents: | Pounds | |
| Date of Manufacture: | | |
| Lot # | | |

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

CORROSIVE. CAUSES PERMANENT, IRREVOCABLE EYE DAMAGE AND SKIN DAMAGE. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF INHALED OR SWALLOWED. HARMFUL IF ABSORBED THROUGH THE SKIN. 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 AND RUBBER GLOVES. AVOID BREATHING VAPOR OR MIST. KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. DO NOT TAKE INTERNALLY. WASH THOROUGHLY AFTER HANDLING.

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.

CONDITIONS OF SALE AND WARRANTY

Thor Chemie 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 CHEMIE 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 Chemie 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 CHEMIE GmbH or SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

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 AND ADHESIVES: Acticide® 45 mildewcide is recommended for the control of fungi in latex and oil-based paints, coatings and adhesives (non-food contact).

Add two to five pounds of Acticide® 45 per 100 gallons of paint. See the accompany-ing technical bulletin for more detail on the use of stabilizers, optimum pH conditions of use and incompatibilities with other ingredients of paints.

ACTICIDE® 45

TECHNICAL BULLETIN

GENERAL DESCRIPTION

ACTICIDE® 45 is an effective mildewcide specifically formulated for the protection of aqueous and solvent based products from fungal growth in the dry film state.

COMPOSITION:

ACTICIDE® 45 is described chemically as 2-n-Octyl-4-isothiazolin-3-one. It is one of a comprehensive range of biocides manufactured by Thor worldwide and is metal and formaldehyde free.

TYPICAL PROPERTIES:

ACTICIDE® 45 has the following typical properties:

Appearance:

Clear yellow liquid

Flash point:

92° C

Boiling point: Freezing Point:

187° C

Odor:

No distinct odor

Specific gravity:

 $1.03 \text{ g/cm}^3 (20^{\circ} \text{ C})$

Solubility:

Soluble in alcohols, mineral spirits. Miscible in water.

Viscosity:

49.5 m Pas, 20° C (capillary)

<u>DIRECTIONS FOR USE</u>: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

BIOCIDAL PROPERTIES:

ACTICIDE® 45 is very effective in preventing the growth of fungi known to degrade paint films and coatings in the dry state. It also shows some activity against bacterial growth in the wet state. Product activity applies to a wide spectrum of fungi commonly associated with product failure. Some of these organisms are as follows:

Alternaria sp. Ceratocystis sp.
Aspergillus sp. Cladosporium sp.
Aureobasidium sp. Sclerophoma sp.
Candida albicans (yeast) Streptomyces sp.



APPLICATIONS:

ACTICIDE® 45 is recommended for the dry state protection of films for most interior and exterior paints and coatings including aqueous and solvent based paints and wood stains, varnishes, textured coatings, adhesives (non-food contact), fillers and sealants. In addition, ACTICIDE® 45 in solvents such as white spirits and kerosene provides an ideal fungicidal pretreatment for surfaces prior to coating.

QUANTITIES OF USE:

The amount of ACTICIDE® 45 needed to protect dry paint films varies with the type formulation and exposure conditions of the film (e.g., indoor vs. tropical climates). Generally two to five pounds of ACTICIDE® 45 are used per 100 gallons of paint. Similar application levels are used with oil-based paints or coatings. In industrial .dhesives mildew resistance is obtained using such levels on a weight/weight basis -- i.e., two to five point of ACTICIDE® 45 per 1000 pounds of adhesive. Also, reported uses of ACTICIDE® 45 with zinc oxide in paints have been shown to be very effective. For example, with three pounds per gallon of the ACTICIDE® 45, 25 to 50 pounds of zinc oxide can improve performance significantly, especially under stringent conditions such as in a tropical environment. The Acti-Chem Specialties Technical Department will assist in the determination of the optimum quantity required by your product. This facility is especially helpful where information is required about a formulation which 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.

METHOD OF USE:

ACTICIDE® 45 can be incorporated with most paint and coating products at any stage in the manufacturing process. It is preferably added in the let-down stage during manufacture of the paint. Add slowly with good agitation just before addition of thickener. ACTICIDE® 45 is used in oil-based paints at a level similar to those used in latex products. The use of lithopone or other sulfide type pigments is not recommended with this Acticide. Additional solvent glycols or cellosolves may be useful to help dissolution.

COMPATIBILITY:

ACTICIDE® 45 is compatible with most raw materials used in microbiologically susceptible products. However, it may be deactivated by ammonia and amines at higher pH's. Contact of ACTICIDE® 45 with strong oxidizing or reducing agents should also be avoided. Stabilizers can be used to protect the ACTICIDE® 45. Acti-Chem's technical service facilities will gladly assist in identifying a suitable stabilizer, or a method of stabilization, appropriate to your particular formulation.

PRECAUTIONARY STATEMENTS:

The following precautions should be observed in handling and using ACTICIDE® 45.

HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS DANGER KEEP OUT OF REACH OF CHILDREN

STATEMENT OF PRACTICAL TREATMENT

<u>IF SWALLOWED:</u> Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting. Avoid alcohol.

'F ON SKIN: Wash with plenty of soap and water. Get medical attention.

<u>IF INHALED</u>: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF IN EYES: Hold eyelids open and flush with steady, gentle stream of water for 15 minutes. Get medical attention.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

SAFETY AND HANDLING:

It is recommended that protective clothing be worn when handling ACTICIDE® 45. This material is corrosive, and chemical resistant gloves such as those made from butyl rubber should be worn and immediately discarded if there is any indication of tears or break-through. Respiratory protection is required if exposure limits are exceeded. Chemically resistant aprons are advisable.

<u>PACKAGING:</u> ACTICIDE® 45 is delivered in plastic drums containing 25 kg net and in polyethylene lined steel drums containing 200 kg net.

ECOLOGY: ACTICIDE® 45 is toxic to fish and to 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. 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.



<u>TOXICOLOGY:</u> Detailed examination by independent industrial toxicological laboratories has shown **ACTICIDE® 45** to have the following toxicity:

Acute oral toxicity:

LD₅₀ (rat) 279 mg/kg

Acute dermal toxicity:

 LD_{50} (rat) > 2000 mg/kg

Acute Inhalation:

LC₅₀ (rat) 0.60 mg/L (4 hr)

Primary skin irritation (rabbit):

Severe

Skin sensitization (guinea pig):

Delayed contact hypersensitivity

STORAGE:

ACTICIDE® 45 should be stored in the original containers and, in accordance with good stock rotation practice, should be used within 12 months of purchase, being protected from extremes of temperature during storage

TRANSPORTATION: DOT hazard class 8 (corrosive material). DO NOT STORE OR SHIP IN UNLINED METAL CONTAINERS. USE ONLY ORIGINAL CONTAINERS.

SPILLAGE / DISPOSAL

Spilled material should be diked and absorbed into an inert material such as clay or vermiculite and the absorbent transferred to a pail or other suitable vessel. Treat with freshly prepared 5% solutions of sodium hypochlorite and sodium bicarbonate mixed together in order to deactivate the ACTICIDE® 45. Local surfaces of the spill may be decontaminated with a mixture of 5% sodium hypochlorite solution and a 5% solution of sodium bicarbonate.

PROHIBITIONS: This product is corrosive to mild steel. Do not store or transport in unlined metal containers. Do not contaminate with strong oxidizing or reducing agents. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

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.

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CONTAINER DISPOSAL: Metal container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Plastic container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incinceration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

The information contained herein is given without any warranty express or implied, except that such information is to the best of our knowledge and belief, true and accurate. Thor recommends that customers independently test and evaluate its products in order to decide their safety and effectiveness.

In submitting this information, no liability is assumed nor permission given to induce or recommend to practice any patented invention without a license.

ACTI-CHEM SPECIALTIES, INC.

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August 1999