ACTICIDE® 45

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 - PELIGRO
See Side panel for additional precautionary statements

FIRST AID

If Swallowed: ➢ Call a 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 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.

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.

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.
➢ Call a poison control center or doctor for treatment advice.

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

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

Precautionary Statements:
Hazards to Humans and Domestic Animals
DANGER
CORROSIVE. CAUSES PERMANENT, IRREVOCABLE 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 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 BEFORE 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 microbiocide 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; * 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  EPA Est. No. 67071-DEU-001

Manufactured By/For: Thor GmbH
0-67346 Speyer, Germany
Tel. (06232) 6360
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), B+6.1, PG-II

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

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 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:

Control of fungi in latex and oil-based paints and coatings (non-food contact), including colorants used in paints and coatings.

The amount of ACTICIDE® 45 needed to protect dry and the applied/wet-states of paints, coatings, colorants used in paints and coatings, and wood coatings varies with the type of formulation and exposure conditions of the film (e.g., indoor vs. tropical climates). 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.

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Amount per 100 lb Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.02 – 0.29%</td>
<td>0.02 – 0.29 lb</td>
</tr>
<tr>
<td>0.02 – 0.29%</td>
<td>1 – 5 qt / per 250 gal water</td>
</tr>
</tbody>
</table>

### *SAPSTAIN CONTROL*

To control sapstain on debarked logs and lumber, prepare a working solution by mixing with 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

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 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.

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Amount per 100 lb Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.02 – 0.29%</td>
<td>0.02 – 0.29 lb</td>
</tr>
</tbody>
</table>

---

Information Sheet # 006-0 V001 – 06/13/2013

Page 1 of 4

EPA Reg. No. 67071-6
Manufactured By/For: Thor GmbH
D-67346 Speyer, Germany
Tel. (06232) 6360

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

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

<table>
<thead>
<tr>
<th>DRY FILM PRESERVATIVE FOR BUILDING MATERIALS INCLUDING:</th>
<th>0.02 – 0.29%</th>
</tr>
</thead>
<tbody>
<tr>
<td>*SEALANTS</td>
<td>0.02 – 0.29 LB / PER 100 LB PRODUCT</td>
</tr>
<tr>
<td>*MASTICS</td>
<td></td>
</tr>
<tr>
<td>*CAULKS</td>
<td></td>
</tr>
<tr>
<td>*JOINT CEMENTS</td>
<td></td>
</tr>
<tr>
<td>*SPACKLING</td>
<td></td>
</tr>
<tr>
<td>*STUCCO</td>
<td></td>
</tr>
<tr>
<td>*GROUTS</td>
<td></td>
</tr>
<tr>
<td>*CONCRETE ADMIXTURES</td>
<td></td>
</tr>
</tbody>
</table>

Control of fungi in building materials (non-food contact).

The amount of ACTICIDE® 45 needed to protect dry and the applied/wet-states of building materials varies with the type of formulation and exposure conditions of the film (e.g., indoor vs. tropical climates). 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.

*Not approved for these uses in the state of California

<table>
<thead>
<tr>
<th>*APPLIED FILM / WET STATE PRESERVATIVE</th>
<th>0.02 – 0.29%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.02 – 0.29 LB / PER 100 LB PRODUCT</td>
</tr>
</tbody>
</table>

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 this use in the state of California

<table>
<thead>
<tr>
<th>*LEATHER PRESERVATION</th>
<th>0.014 – 0.06%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.014 – 0.06 LB / PER 100 LB PELT WEIGHT</td>
</tr>
</tbody>
</table>

Prevention of bacterial and fungal growth on wet leather stock such as pickled, chrome-tanned and vegetable-tanned hides and leather, including wet-blues. 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 this use in the state of California
**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.*

<table>
<thead>
<tr>
<th>TEXTILE, FIBER AND FABRIC PRESERVATION</th>
<th>0.1 – 0.25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>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. 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.</td>
<td>0.1 – 0.25 LB / PER 100 LB PRODUCT</td>
</tr>
<tr>
<td><em>Not approved for these uses in the state of California</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESERVATION OF PLASTIC/PVC/VINYL PRODUCTS</th>
<th>0.1 – 0.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of mildew, fungi and bacteria 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.</td>
<td>0.1 – 0.5 LB / PER 100 LB FORMULATION</td>
</tr>
<tr>
<td>Mode of application for plastic/PVC/vinyl products. ACTICIDE® 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 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® 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.</td>
<td>Or</td>
</tr>
<tr>
<td><em>Not approved for this use in the state of California</em></td>
<td></td>
</tr>
</tbody>
</table>

ACTICIDE® 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.
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.

*METALWORKING FLUID PRESERVATION

Control of fungi in the manufacture and use of soluble, synthetic, and semi-synthetic metalworking fluids. ACTICIDE® 45 is not recommended for use in systems or fluids which are subject to foaming or systems with high levels of tramp oil. ACTICIDE® 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.

FLUID CONCENTRATES

ACTICIDE® 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® 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® 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.

*Not approved for this use in the state of California

*HYDRAULIC FLUID PRESERVATION

Preservative in the manufacture and use of soluble oils, high water-based and emulsion hydraulic fluids. ACTICIDE® 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.

FLUID CONCENTRATES

ACTICIDE® 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® 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® 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.

*Not approved for this use in the state of California