THOR ACTICIDE® CT MICROBIOCIDE

An Industrial Microbiocide for use in Polymer Latices, paints, coatings, inks, adhesives, building materials (caulks and sealants), printing fluids, industrial and household consumer products, metalworking fluids, recirculating electrodeposition systems, process water systems, and pesticide products

Solution

COMMERCIAL

ACTIVE INGREDIENTS:

KEEP OUT OF REACH OF CHILDREN READ THE LABEL BEFORE USING

REGISTRATION NO. 29162 PEST CONTROL PRODUCTS ACT

CORROSIVE TO EYES AND SKIN

POTENTIAL SKIN SENSITIZER

NET CONTENTS: 50 kg BATCH NO.: MANUFACTURING DATE:

THOR ACTICIDE® CT Microbiocide weighs 1.01 kg per litre

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

Fax: (203) 954-0005

REGISTRANT: Thor GmbH Landwehrstrasse 1 D-67346, Speyer GERMANY

THOR ACTICIDE® CT Microbiocide is recommended as an antimicrobial preservative for polymer latex emulsions and materials to control and then prevent the formation of slime.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Corrosive to eyes and skin. Potential skin sensitizer. Do not get in eyes, on skin, or on clothing. Do not swallow. Avoid breathing vapours and spray mists. Wash skin thoroughly with soap and water after handling. Remove contaminated clothing and wash separately from other laundry before reuse. Avoid contamination of food. Wear chemical- resistant coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks, chemical- resistant footwear and a full-face respirator with a BIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH-approved canister approved for pesticides, during mixing, loading, application clean-up and repair.

ENVIRONMENTAL PRECAUTIONS

This product is toxic to fish and other 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.

FIRST AID

IF SWALLOWED: Call a poison control centre 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 a poison control centre 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 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 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 the container label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Probable mucosal damage may contraindicate the use of gastric lavage.

DIRECTIONS FOR USE

PRESERVATIVE FOR PAINTS AND COATINGS:

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in water-based coatings, dispersed pigments and aqueous paints used for architectural purposes.

Add 430 grams to 1.65 kg of THOR ACTICIDE[®] CT Microbiocide to each 1000 kg of emulsion to provide 6.5 to 25 ppm active isothiazolone ingredients. A higher dosage rate of up to 3.3 kg per 1000 kg, providing up to 50 ppm active ingredients, may be required for storage during extremely high temperatures and humidity.

PRESERVATIVE FOR ADHESIVES, INKS, AND BUILDING MATERIALS:

THOR ACTICIDE® CT Microbiocide is also recommended as an in-container preservative in industrial products – mastics, caulks, joint cements, concrete additives, inks, slurries.

Add 430 grams to 3.3 kg of THOR ACTICIDE® CT Microbiocide to each 1000 kg of product to provide 6.5 to 50 ppm active isothiazolones.

PRESERVATIVE FOR LATICES:

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria in the manufacture and storage of synthetic and natural polymer latices - acrylics, styrene/butadiene, carboxylated styrene/butadiene, ethylene/vinyl acetate, starches, derived polymers.

Add 430 grams to 3.3 kg of THOR ACTICIDE® CT Microbiocide to each 1000 kg of emulsion to provide 6.5 to 50 ppm active isothiazolones.

NOTE: The actual concentration of THOR ACTICIDE® CT Microbiocide required will depend upon such factors as specific substance to be treated, frequency of repeated microbial contamination expected and level of protection required. To ensure uniform mixing and in order to prevent localized shock to latex materials, add the THOR ACTICIDE® CT Microbiocide slowly to the formulation with agitation as early as possible during the production process.

PRESERVATIVE FOR PRINTING FLUIDS:

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in aqueous printing inks such as flexographic, gravure, screen and ink jet printing inks. Add 400 g – 1670 g of THOR ACTICIDE® CT Microbiocide to each 1000 kg of fluid to provide 400 to 1670 ppm product.

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in the manufacture and storage of printing ink components such as resins, plasticizers, water soluble dyes, pigments, gelling agents, waxes, surfactants, and thickeners. Add 400 g – 1670 g of THOR ACTICIDE® CT Microbiocide to each 1000 kg of fluid to provide 400 to 1670 ppm product.

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in fountain solutions used for printing operations. THOR ACTICIDE® CT Microbiocide should only be used in those fountain solution concentrates which are automatically diluted prior to use. THOR ACTICIDE® CT Microbiocide is also recommended as a preservative for photo processing chemicals such as stabilizer solutions. THOR ACTICIDE® CT Microbiocide is added to the fountain solution concentrate or processing chemical concentrate at a level to ensure that the final use dilution fluid will contain between 400 – 1670 ppm product.

PRESERVATIVE FOR HOUSEHOLD AND CONSUMER PRODUCTS:

THOR ACTICIDE® CT Microbiocide is recommended as an in-container preservative for the control of bacteria and fungi in industrial and household consumer products in all-purpose cleaners, polishes and anti-tarnish products, solid air fresheners, carpet shampoos and pre-spotters.

Add 377 grams to 1.5 kg THOR ACTICIDE® CT Microbiocide to each 1000 kg of product to be treated. THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in liquid dishwashing detergents, automotive appearance products such as cleaners, wax and polishes and liquid laundry products. Add 377 grams to 1.0 kg THOR ACTICIDE® CT Microbiocide to each 1000 kg of product to be treated.

To insure uniform distribution, slowly disperse THOR ACTICIDE[®] CT Microbiocide into product with agitation. Mix thoroughly until evenly dispersed throughout the product.

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in packaged premoistened sponges and mops.

Add 377 grams to 1.5 kg THOR ACTICIDE® CT Microbiocide to each 1000 kg of water used to premoisten sponges and mops.

PRESERVATIVE FOR PESTICIDE PRODUCTS:

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in pesticide products. Add 400 grams to 3.04 kg THOR ACTICIDE® CT Microbiocide to each 1000 kg of product to be treated to provide 6 to 45 ppm active isothiazolones.

PRESERVATIVE FOR METALWORKING FLUIDS AND CONVEYOR LUBRICANTS:

For non-food plant industrial use only.

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria and fungi in soluble and emulsifiable type aqueous metalworking fluids, such as emulsified petroleum oils, and formulations containing alcoholic fatty acid, sulfonated red oil, or naphthalene sulfonate and water based conveyor lubricants. These fluids are usually prepared by diluting the product concentrates 1:50 with water.

Metal Working Fluids: For the maintenance of a non-fouled system, use the diluted THOR ACTICIDE[®] CT Microbiocide at 22 ml per 100 L of emulsion every 4 weeks, or 22-100 ml per 100 L of emulsion every 8-12 weeks. For a noticeably fouled system use initial dose of 43-100ml per 100 L of emulsion to be followed by subsequent dosages depending upon the treatment interval noted above. The higher dosage range or increased frequency of treatment may be required depending on rate of dilution of the preservative with makeup fluid, the nature of severity of contamination, level of control required, filtration effectiveness, system design, etc.

The preservative should be dispensed into the use-dilution of the metalworking fluid by a metering pump and uniformly dispersed throughout the system.

Conveyor Lubricant: These fluids are prepared by diluting the product concentrated 1:50 to 1:400 with water. The concentration of THOR ACTICIDE® CT Microbiocide added to ensure final use dilution will contain 200-1000 ppm of THOR ACTICIDE® CT Microbiocide. Grossly contaminated systems must be cleared before treatment is begun. For initial dose in a notably fouled system meter 1 L of THOR ACTICIDE® CT Microbiocide per 1000 L of use dilution

conveyor lubricant. If necessary, continue metering 400 ml to 1 L of THOR ACTICIDE® CT Microbiocide per 1000 L of conveyor lubricant until control is achieved and maintain the final use dilution at 400 – 1000 ppm. After establishing

microbial control or to prevent fouling of a clean system, maintain THOR ACTICIDE® CT Microbiocide at 3-15 ppm active ingredient by metering 200 ml to 1 L per 1000 L of conveyor lubricant.

Avoid contamination of food in the application and storage of the product.

RECIRCULATING ELECTRODEPOSITION SYSTEMS:

THOR ACTICIDE® CT Microbiocide is recommended for the control of bacteria, fungi and algae in recirculating

electrodeposition systems and associated rinse systems. THOR ACTICIDE® CT Microbiocide should be dispensed into the circulating rinse system, ultrafilter permeate or final distilled water rinse at a point to ensure uniform mixing.

Initial Dose: When the system is noticeably fouled, add 66.7 to 233.3 ppm of THOR ACTICIDE® CT Microbiocide (6.7 to 23.3 Litres) per 10,000 Litres of fluid in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 33.3 to 100 ppm of THOR ACTICIDE® CT Microbiocide (3.3 to 10 Litres) per 10,000 Litres of fluid in the system weekly or as needed to maintain the system. A change of frequency of treatment may be required depending upon the 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. Badly fouled systems must be cleaned before treatment is begun.

PROCESS WATER SYSTEMS

Pulp & Paper (non-food contact paper): THOR ACTICIDE[®] CT Microbiocide is recommended for the control of bacterial and fungal slime in the production of non-food contact paper.

THOR ACTICIDE® CT Microbiocide should be added at a point in the system to insure uniform mixing such as the Beater, Hydropulper Fan or Broke Storage Pump.

Add 0.3 to 1.1 kg of THOR ACTICIDE® CT Microbiocide as supplied per tonne (dry basis) of pulp or paper produced, as a slug dose. If needed repeat daily. Badly fouled systems should be cleaned before initial treatment

Cooling Towers: THOR ACTICIDE® CT Microbiocide is recommended for the removal of slime from fouled towers, add 0.33 to 8.67 kg of THOR ACTICIDE® CT Microbiocide as supplied per 10 tonnes of water in the system. This

dosage should be repeated 2 to 3 times per week until fouling has been reduced to an acceptable level this establishing microbial control.

THOR ACTICIDE® CT Microbiocide should be added to the basin, to the distribution boxes, or at any other point where it will be rapidly and uniformly dispersed throughout the system.

Air Washer Systems: Add to the air washer sump or chill water sump to insure uniform mixing. Add 4.20 to 16.43 kg of THOR ACTICIDE[®] CT Microbiocide per 10,000 litres of water in the system, depending on the severity of contamination, to control bacteria, fungi and algae which cause fouling in industrial air washer systems. **Badly fouled systems must be cleaned before initial treatment. For use only in industrial air washing systems that maintain effective mist eliminating components.**

Intermittent or slug method:

Initial Dose: When the system is noticeably fouled, add 1.51 to 8.95 kg of THOR ACTICIDE® CT Microbiocide per 10,000 litres of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.36 to 2.23 kg of THOR ACTICIDE® CT Microbiocide per 10,000 litres of water weekly or as needed to maintain control.

Continuous Feed Method:

Initial Dose: When the system is just noticeably fouled, add 1.51 to 8.95 kg of THOR ACTICIDE® CT Microbiocide per 10.000 litres of water in the system.

Subsequent Dose: Maintain this treatment level by adding a continuous feed of 0.36 to 2.23 kg of THOR ACTICIDE® CT Microbiocide per 10,000 litres of makeup water.

Oil Field Injection Waters: For the control of slime-forming bacteria and sulphate-reducing (sulphide-forming) bacteria in oil field injection waters. Slug treat with 70 to 360 ppm of THOR ACTICIDE[®] CT Microbiocide as supplied in accordance with the severity of bacterial contamination.

Add 180-360 ppm of THOR ACTICIDE $^{\circ}$ CT Microbiocide as supplied (17.8 to 35.6 litres per 100 tonnes of water) at any point from which the material mixes uniformly throughout the system. Repeat the treatment after 3 days or as needed to achieve control. After achieving control, add 70 – 180 ppm of THOR ACTICIDE $^{\circ}$ CT Microbiocide as

supplied (7.1 to 17.8 litres per 100 tonnes of water) every seven days or as needed to maintain control.

STORAGE

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. If plastic, make empty container unsuitable for further use. This product is corrosive to mild steel. Do not store or transport in unlined metal containers.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

NON-RETURNABLE CONTAINERS:

- 1. Triple or pressure-rinse the emptied container thoroughly and add the rinsings to the treatment site.
- 2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal or reconditioning.
- 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.

RETURNABLE BULK CONTAINERS:

Do not reuse this container for any purpose. For disposal this empty container may be returned to the point of purchase (distributor/ dealer). Close all valves prior to return.

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 information on the clean-up of spills.

NOTICE TO USER

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