ACTICIDE® GA

Active Ingredients:
- 2-Strom-2-piperazine-1, 3-diol .................................................. 5.20%
- 5-chloro-2-methyl-4-isothiazolin-3-one ................................ 0.85%
- 2-Methyl-4-isothiazolin-3-one .................................................. 2.05%

Total: .................................................................................. 8.10%

KEEP OUT OF REACH OF CHILDREN

DANGER

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 a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

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 advice.

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 center 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 mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

NOT LISTED: Have the product container or label with you when calling a poison control center or doctor, or giving for treatment. You may also contact 1-800-244-6500 for emergency medical treatment information.

NOTE TO PHYSICIAN: Probable musculoskeletal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

For Transportation / Spills Emergency
call Chemtrec at 1-800-424-8300

Precautionary Statements:
Hazards to Humans and Domestic Animals

DANGER

CORROSIVE CAUSES EYE DAMAGE AND SKIN BURNS, MAY CAUSE ALLERGIC SKIN REACTION, MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH THE SKIN. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. WEAR GOGGLES OR FACE SHIELD WHEN HANDLING. HARMFUL IF SWALLOWED, AVOID BREATHING VAPOR OR SPRAY MIST. AVOID CONTAMINATION OF FOOD. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING. REMOVE CONTAMINATED CLOTHING, AND WASH CLOTHING BEFORE REUSE.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Industrial microbicide for use in adhesives, testtubes, pills, coatings, building materials, polymer latexes, printing inks, "wet" working, "wet" cleaning fluids, "wet" cleaning tanks bottom watercoats, dispersions/emulsions/resolutions/suspensions, aqueous compositions, "jell" and paper inks. Industrial Water Systems, and other cleaners including liquid soap, cleansers, detergents, carpet shampoo for industrial and household use and in polishes and waxes. READ AND FOLLOW THE DIRECTIONS FOR USE ON THE ACCOMPANYING INFORMATION SHEET.

* Not approved for use in the State of California

EPA Reg. No. 67071-18 EPA Est. No. 67071-DEU-001

Manufactured By/For: Thor GmbH
U.S. Office: Thor Specialties, Inc.,
50 Waterview Drive, Shelton, CT
06484 USA
Tel. (203) 516-6690

UN 3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. [mixture containing 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-4-isothiazolin-3-one (313), 8, RC 8]

Batch: Mfg Date: Net Contents (pounds):

67071-18_Acticide GA_20151222_9_67071_.pdf
# ACTICIDE® GA

**INFORMATION SHEET**

THIS ACTICIDE® GA INFORMATION SHEET MUST ACCOMPANY EACH SHIPMENT OF ACTICIDE® GA

**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>PRESERVATIVE FOR ADHESIVES AND TACKIFIERS</th>
<th>0.05 – 0.165%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTICIDE® GA microbiocide is recommended as an in-container preservative for the control of bacteria and fungi in water soluble and water dispersed adhesives such as animal glues, vegetable glues, natural rubber latices, polyvinyl acetate, styrene-butadiene and acrylic latices. ACTICIDE® GA microbiocide is recommended as a preservative for tackifiers derived from rosin and hydrocarbon resins. A higher dosage rate providing up to 0.3% (3000 ppm) ACTICIDE® GA may be required for storage during extremely high temperatures and humidity. Add 3.0 lbs of ACTICIDE® GA per 1000 lbs of fluid.</td>
<td>0.5 – 1.65 LB per 1000 LBS of fluid (500 – 1650 ppm ACTICIDE® GA)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESERVATIVE FOR BUILDING MATERIALS</th>
<th>0.05 – 0.165%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTICIDE® GA microbiocide is recommended as an in-container preservative for the control of bacteria and fungi in building materials such as mastics, caulkis, joint cements, spackling, grouting, and concrete admixtures. *Not approved for this use in the state of California.</td>
<td>0.5 – 1.65 LB per 1000 LBS of fluid (500 – 1650 ppm ACTICIDE® GA)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRESERVATIVE FOR LATICES, POLYMER EMULSIONS OR SOLUTIONS</th>
<th>0.05 – 0.33%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTICIDE® GA microbiocide is recommended for the control of bacteria and fungi in the manufacture and storage of synthetic and natural polymer latices including acrylics, styrene-butadiene, carboxylated styrene-butadiene, ethylene-vinyl acetate and biopolymers intended for industrial use such as xanthan gum, gum arabic, guar gum, protein derived polymers, starches and casein derived polymers. <strong>NOTE:</strong> To insure uniform mixing, add ACTICIDE® GA microbiocide to latex or solutions slowly with agitation. The actual concentrations required will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected and level of protection required.</td>
<td>0.5 – 3.3 LB per 1000 LB emulsion 227g – 1.5 KG per 454 KG of emulsion (500 – 3300 ppm ACTICIDE® GA)</td>
</tr>
</tbody>
</table>
# ACTICIDE® GA

## INFORMATION SHEET

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**DIRECTIONS FOR USE**

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

## PRESERVATIVE FOR DISPERSED PIGMENTS

ACTICIDE® GA microbiocide is recommended for the control of bacteria and fungi in the manufacture and storage of dispersions / emulsions / solutions / suspensions such as kaolin clay, montmorillonite clay, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate, *dispersed colorants, and kieselguhr used in paint and paper production.*

*Not approved for this use in the state of California.*

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Usage Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05 – 0.29%</td>
<td>0.5 – 2.9 LB per 1000 LBS of fluid (500 – 2900 ppm ACTICIDE® GA)</td>
</tr>
</tbody>
</table>

## PRESERVATIVE FOR PAINTS AND COATINGS

ACTICIDE® GA microbiocide is recommended as an in-container preservative for the control of bacteria and fungi in water based coatings including paper, wood coatings and paints (including paint wash solutions) used for architectural, product finishes, sealants, and special purpose coatings.

A higher dosage rate providing up to 0.3% (3000 ppm) ACTICIDE® GA may be required for storage during extremely high temperatures and humidity. Add 3.0 lbs of ACTICIDE® GA per 1000 lbs of fluid.

### Special purpose coating uses

Use as a preservative for:
- *Electrodeposition paints or solutions*
- *Photoplastic solutions or coatings*
- *Fount (or fountain) solutions used in the printing process as a maintenance fluid/coating and as a special coating for printing plates*
- *Spin finish coatings for fibers.*

*Not approved for this use in the state of California.*
**ACTICIDE® GA**

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The application/addition directions for these special purpose coating uses are:

**ELECTRODEPOSITION**

Tankside Addition to Electrodeposition Systems:

ACTICIDE® GA microbiocide is recommended as a tankside additive for the control of bacteria, fungi, and algae in re-circulating electrodeposition systems and associated rinse systems. Alternately, ACTICIDE® GA microbiocide may be added through the components of the electrodeposition paint prior to their addition to the electrodeposition system.

ACTICIDE® GA microbiocide should be dispensed into the recirculating rinse system, ultrafilter permeate, or final distilled rinse system at a point to insure uniform mixing.

A change of frequency of treatment may be required depending on 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.

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

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**TREATMENT OF ELECTRODEPOSITION PAINT COMPONENTS**

Initial Dose of Paint Components:

ACTICIDE® GA microbiocide should be added to the resin, pigment, or other component of the electrodeposition paint at a level to ensure that the final use-dilution fluid will contain 334 to 2400 ppm product.

Supplemental Tanked Dosing of Electrodeposition System:

If additional microbial control is necessary, ACTICIDE® GA microbiocide may be added to the electrodeposition system tankside to supplement the microbiocide incorporated through paint components.

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

NOTE: Regardless of the manner of incorporation, the total level in the system should never exceed 2400 ppm ACTICIDE® GA or 22.9 gallons per 10,000 gallons of system fluid.

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For a noticeably fouled system:

650 to 2245 ppm (6.5 to 22.5 GAL per 10,000 GAL of fluid). Repeat until control is achieved.

When control is evident:

320 to 1000 ppm (3.2 to 10 GAL per 10,000 GAL of fluid) weekly or as needed.

For a noticeably fouled system:

670 to 2400 ppm (6.7 to 24 GAL per 10,000 GAL of fluid). Repeat until control is achieved.

When control is evident:

334 to 1055 ppm (3.34 to 10.55 GAL per 10,000 GAL of fluid) weekly or as needed.
ACTICIDE® GA
INFORMATION SHEET

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DIRECTIONS FOR USE

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PHOTOPLATE PROCESSING, FOUNTAIN SOLUTIONS, AND INK/INK COMPONENTS

ACTICIDE® GA microbicidal is recommended for the control of bacteria and fungi in photoplate processing including stabilizer solutions and in fountain solutions. ACTICIDE® GA microbicidal is recommended for water-based printing inks including flexographic, gravure, screen and ink jet types. ACTICIDE® GA microbicidal is recommended for the control of bacteria and fungi in printing ink components including resins, plasticizers, water soluble dyes, pigments, gelling agents, waves, surfactants, and thickeners.

A level adjustment may be necessary to accommodate slight changes in solution formulations.

NOTE: To ensure uniform mixing, add ACTICIDE® GA microbicidal to latex or solution slowly with agitation. The actual concentrations required will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected and level of protection required.

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 – 1.0%</td>
<td>1 – 10 LB per 1000 LB of product</td>
</tr>
<tr>
<td></td>
<td>(1000 to 10,000 ppm ACTICIDE® GA)</td>
</tr>
</tbody>
</table>

PRESEVATIVE FOR AQUEOUS COMPOSITIONS

ACTICIDE® GA microbicidal is recommended as an in-container preservative for the control of bacteria and fungi in aqueous products such as aqueous emulsions and dispersions, including:

- pesticide formulations
- *surfactants
- *stabilized oil/water emulsions
- *silicon emulsions
- *surface preparation compounds
- *foam control products
- *nutrient solutions.

*Not approved for this use in the State of California

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05 – 0.33%</td>
<td>0.5 – 3.3 LB per 1000 LB aqueous product</td>
</tr>
<tr>
<td></td>
<td>227 g – 1.5 KG per 454 KG of aqueous product</td>
</tr>
<tr>
<td></td>
<td>(500 to 3300 ppm ACTICIDE® GA)</td>
</tr>
</tbody>
</table>
# ACTICIDE® GA

**INFORMATION SHEET**

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**DIRECTIONS FOR USE**

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**INDUSTRIAL PROCESS WATERS**

ACTICIDE® GA microbiocide is recommended for the control of bacteria, algae and fungi in holding ponds and process tanks of industrial water systems. Use of ACTICIDE® GA in these systems will also help control microorganisms in the piping systems.

*Not approved for this use in the State of California

<table>
<thead>
<tr>
<th>For a noticeably fouled system:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25 – 7.5 LB per 1000 GAL WATER</td>
</tr>
<tr>
<td>Repeat if necessary to achieve control.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>When the system is not noticeably fouled:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3 – 3.3 LB per 1000 GAL WATER</td>
</tr>
<tr>
<td>weekly or as needed for maintenance.</td>
</tr>
</tbody>
</table>

**METAL WORKING AND METAL CLEANING FLUID PRESERVATION**

**Metal Working Fluid Preservation**

ACTICIDE® GA microbiocide is recommended for the control of bacteria and fungi in aqueous metal working fluid solutions and emulsions.

A higher dosage rate and/or increased frequency of treatment may be required depending upon the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc. The preservative should be dispensed into the use dilution of the metal working fluid using a metering pump and uniformly dispersed throughout the system.

*Not approved for this use in the State of California

<table>
<thead>
<tr>
<th>For noticeably fouled systems:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5 – 11 LB per 1000 GAL emulsion</td>
</tr>
<tr>
<td>followed by subsequent maintenance dose below.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To maintain control:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 LB per 1000 GAL emulsion</td>
</tr>
<tr>
<td>every 4 weeks.</td>
</tr>
</tbody>
</table>

**Metal Cleaning Fluid Preservation**

ACTICIDE® GA microbiocide is recommended as a preservative for use in the manufacture and use of alkaline, acid and emulsion based metal cleaning fluids typically used in electroplating, phosphatizing, galvanizing and general metal cleaning operations.

For addition to a metal cleaning concentrate, add ACTICIDE® GA microbiocide at a level to ensure that the final use-dilution fluid will contain no more than 334 to 2400 ppm product.

For direct addition to a fouled system, add 5.3 to 18 lb of ACTICIDE® GA microbiode to each 1000 gallons of use-dilution metal cleaning fluid every 3 to 4 weeks to provide 668 to 2110 ppm product.

A higher dosage range and/or increased frequency of treatment may be required depending upon rate of dilution of the preservative with the make-up fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

The preservative should be dispensed into the use-dilution metal cleaning fluid using a metering pump and uniformly dispersed throughout the system.

*Not approved for this use in the State of California
ACTICIDE® GA INFORMA N S HET
THIS ACTICIDE® GA INFORMATION SHEET MUST ACCOMPANY EACH SHI MENT OF ACTICIDE® GA

DIRECTIONS FOR USE
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**FUELS/OIL/STORAGE TANK BOTTOM WATER/C URO**
ACTICIDE® GA is recommended for the control of bacteria and fungi in the following liquid hydrocarbon fuels and oils: crude oils, aviation fluids, kerosene, heating oils, residual fuel oils, coal slurries, liquefied petroleum gases, petrochemical feedstocks and diesel fuels.
ACTICIDE® GA is recommended for commercial and industrial use only.
ACTICIDE® GA should be directly dispensed into a fuel tank, storage tank, or flowing stream of fuel in a manner to ensure uniform distribution of the preservative in the fuel system. Slug dose or continuous feed methods are recommended.
A shock dose of up to 11 lbs. of ACTICIDE® GA per 1000 gallons of fluid is recommended in the case of extreme contamination. Grossly contaminated systems should be physically cleaned to remove debris.

FOR USE IN AVIATION FUEL, THE FEDERAL AVIATION ADMINISTRATION (FAA) MUST BE CONSULTED AS TO THE ACCEPTABILITY OF THE ADDITIVE FOR USE IN SPECIFIC ENGINES AND/OR AIRCRAFT.

*Not approved for this use in the State of California

For a noticeably fouled system:
2.0 LB per 1000 GAL FLUID
Repeat until control is achieved.

When the system is not noticeably fouled:
1.0 LB per 1000 GAL FLUID
to maintain the system. Repeat every 4 – 6 weeks or when microbial contamination is detected.
# ACTICIDE® GA

INFORMATION SHEET

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DIRECTIONS FOR USE

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

### HOUSEHOLD CONSUMER, INDUSTRIAL, JANITORIAL PRODUCTS

ACTICIDE® GA is recommended for the control of bacteria and fungi in liquid and solid soaps, liquid and solid cleaners, liquid and solid detergents, liquid and solid laundry products, liquid and solid dishwashing detergents, waxes, polishes, liquid and solid fabric treatment / refresher products, liquid and solid air fresheners / deodorizers, car care products, and other similar cleaners.

ACTICIDE® GA may also be used for control of bacteria and fungi in package utility products such as pre-moistened sponges and mops. ACTICIDE® GA may also be used for the control of bacteria and fungi in solutions that are then put into/onto wet wipes for use in industrial, commercial, residential and household uses cited above. Wet wipes containing a solution preserved with this product may not be used for personal care, as baby wipes, or for food contact.

ACTICIDE® GA microbicidal may be added to those products formulated as concentrates which are in turn diluted for use at a level to ensure that the final use-dilution product will contain between 0.05% and 0.15% ACTICIDE® GA.

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Amount per Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05 – 0.10%</td>
<td>0.5 – 1.0 LB PER 1000 LB PRODUCT</td>
</tr>
<tr>
<td>0.05 – 0.15%</td>
<td>0.5 – 1.5 LB PER 1000 LB PRODUCT</td>
</tr>
</tbody>
</table>

### PULP and PAPER MILLS

ACTICIDE® GA microbicidal is recommended for the control of bacterial and fungal slime in the pulp and paper mills.

Add ACTICIDE® GA as a slug dose for the control of bacterial and fungal slime in the production of paper. ACTICIDE® GA should be added to a point such as the beater or hydropulper to ensure uniform mixing in the stock or white water.

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

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Amount per TON (dry basis) of pulp or paper produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.45 – 7.5 LB</td>
<td>per TON (dry basis) of pulp or paper produced</td>
</tr>
</tbody>
</table>

Information Sheet # 018-1 V002 – 02-June-2014
Page 7 of 8

EPA Reg. No. 67071-18
Manufactured By/For: Thor GmbH
D-67349 Speyer, Germany
Thor Specialties, Inc., 50 Waterview Drive, Shelton, CT 06484 USA
Tel. (203) 516-6980
ACTICIDE® GA
INFORMATION SHEET

THIS ACTICIDE® GA INFORMATION SHEET MUST ACcompany EACH SHipment OF
ACTICIDE® GA

DIRECTIONS FOR USE

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

For the Preservation of Papermaking Additives and Coatings

This product should be added directly to the material to be preserved during the manufacture of the papermaking product. Dosing may be repeated as necessary. The dosage rates are as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Dosage Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesives</td>
<td>0.05 – 0.165%</td>
</tr>
<tr>
<td>A higher dosage rate providing up to 0.3% (3000 ppm) ACTICIDE® GA</td>
<td></td>
</tr>
<tr>
<td>may be required for storage during extremely high temperatures and humidity. Add 3.0 lbs of ACTICIDE® GA per 1000 lbs of fluid.</td>
<td></td>
</tr>
<tr>
<td>Coatings</td>
<td>0.05 – 0.165%</td>
</tr>
<tr>
<td>A higher dosage rate providing up to 0.3% (3000 ppm) ACTICIDE® GA</td>
<td></td>
</tr>
<tr>
<td>may be required for storage during extremely high temperatures and humidity. Add 3.0 lbs of ACTICIDE® GA per 1000 lbs of fluid.</td>
<td></td>
</tr>
<tr>
<td>Polymers/latices</td>
<td>0.05 – 0.33%</td>
</tr>
<tr>
<td>Note: to insure uniform mixing, add ACTICIDE® GA microbiocide to latex or solutions slowly with agitation.</td>
<td></td>
</tr>
<tr>
<td>*Dispersed pigments</td>
<td>0.05 – 0.29%</td>
</tr>
<tr>
<td>*Not approved for this use in the State of California</td>
<td></td>
</tr>
<tr>
<td>*Emulsions</td>
<td>0.05 – 0.33%</td>
</tr>
<tr>
<td>*Not approved for this use in the State of California</td>
<td></td>
</tr>
<tr>
<td>*Foam control products</td>
<td>0.05 – 0.33%</td>
</tr>
<tr>
<td>*Not approved for this use in the State of California</td>
<td></td>
</tr>
</tbody>
</table>

GENERAL ADVISORY STATEMENT: ACTICIDE® GA SHOULD BE ADDED TO THOSE PRODUCTS FORMULATED AS CONCENTRATES WHICH ARE IN TURN DILUTED FOR USE AT A LEVEL TO ENSURE THAT THE FINAL USE-DILUTION PRODUCT WILL CONTAIN ACTICIDE® GA AT THE LEVELS DESCRIBED ABOVE FOR EACH USE CATEGORY.

ACTICIDE® GA microbiocide weighs 8.7 lb. per gallon.