

## **PLEASE NOTE**

**This image contains more than one label  
approved for this product on this date.**

707 -259

4/12/2012

1/7

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



Office of Pesticide Programs

APR 12 2012

Rohm and Haas Company  
100 Independence Mall West  
Philadelphia, PA 19106-2399

Attention: Valerie Phillips

**Subject: KLARIX™ 4000 Industrial Microbiocide**  
EPA Registration No. 707-259  
Notification Dated March 26, 2012

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

**Proposed Notification:**

- To remove the summary uses
- To add the phrase 'THE USES BELOW ARE NOT APPROVED FOR USE IN 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) 308-6217.

Sincerely,

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

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Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060

	United States	<input type="checkbox"/> Registration	OPP Identifier Number
	Environmental Protection Agency	<input type="checkbox"/> Amendment	
	Washington, DC 20460	<input checked="" type="checkbox"/> Other	

### Application for Pesticide - Section I

1. Company/Product Number The Dow Chemical Company / 707-259	2. EPA Product Manager Mr. Marshall Swindell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) The Dow Chemical Company / KLARIX™ 4000 Industrial Microbicide	PM# 33	
5. Name and Address of Applicant (Include ZIP Code) The Dow Chemical Company 727 Norristown Rd Spring House, PA 19477 <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. _____ Product Name _____	

### 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 to remove the summary uses and to add the phrase "THE USES BELOW ARE NOT APPROVED FOR USE IN CALIFORNIA".

### 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 checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container		
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1 pt, 1 qt, 1, 5, 30, 55, 200, 300, 5000 gal		5. Location of Label Directions <input type="checkbox"/> on label	
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 Joanne Ryder	Title Regulatory Manager	Telephone No. (Include Area Code) 215.641.7220
Certification 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 Joanne Ryder	5. Date March 26, 2012	

ROHM AND HAAS COMPANY INDEPENDENCE MALL WEST PHILADELPHIA, PA 19105, U.S.  
TELEPHONE (215) 592-3000  
CABLE ADDRESS: ROHMHAAS TELEX 845-247 TWX 710-670-5335 TELECOPIER (215) 592-3377

A Wholly Owned Subsidiary of The Dow Chemical Company

REPLY TO:  
RESEARCH LABORATORIES  
727 NORRISTOWN ROAD  
SPRING HOUSE, PA 19477  
(215) 641-7000  
(215) CH 2-0400



March 26, 2012

Mr. Marshall Swindell  
Antimicrobial Division  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Subject: KLARIX™ 4000 Industrial Microbicide  
EPA Registration No. 707-259  
Notification

Dear Mr. Swindell:

We are submitting an application to amend the label for the Rohm and Haas Company product KLARIX™ 4000 Industrial Microbicide (EPA Reg. No. 707-259).

We currently manage two separate printed labels for KLARIX™ 4000 Industrial Microbicide, one which contains the EPA approved uses and another label which contains only the approved uses in California.

We wish to consolidate to one printed label by identifying the uses which are not approved in California by making the following changes

- 1) Removing the summary of uses which appear below the product name
- 2) Adding the phrase "THE USES BELOW ARE NOT APPROVED FOR USE IN CALIFORNIA".

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 USC Section 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA.

Administrative items included in support of this amendment are:

1. Application for Pesticide Registration (EPA Form 8570-1)
2. Six (6) copies of the amended label

If you have any questions or need clarification, please do not hesitate to contact me.

Sincerely,

Joanne Ryder  
Product Stewardship Regulatory Manager  
215-641-7220

# KLARIX™ 4000

ROHM AND HAAS COMPANY  
A Wholly Owned Subsidiary of The Dow Chemical Company  
100 Independence Mall West  
Philadelphia, PA, 19106-2399  
Phone: 215-592-3000



®™\*Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

**ACTIVE INGREDIENT:**

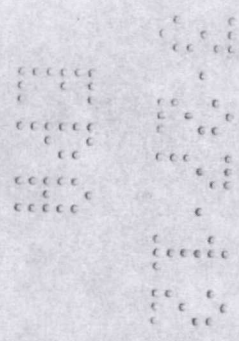
4,5-Dichloro-2-n-octyl-3(2H)-isothiazolone 4.25%

**INERT INGREDIENTS:**

95.75%

**TOTAL:** 100.00%

**KEEP OUT OF REACH OF CHILDREN  
DANGER  
FIRST AID**



**IF ON SKIN:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 min.
- 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 min.
- Remove contact lenses, if present, after first 5 min. 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.

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Have person sip a glass of water if able to swallow. Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**IN CASE OF EMERGENCY CALL ROHM AND HAAS COMPANY 215-592-3000**

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

**SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER**

- CORROSIVE**
- CAUSES IRREVERSIBLE EYE DAMAGE**
- HARMFUL IF ABSORBED THROUGH THE SKIN**
- CAUSES SKIN IRRITATION**
- HARMFUL IF INHALED**
- MAY CAUSE ALLERGIC SKIN REACTION**

This product is a dermal sensitizer. Do not get in eyes, on skin, or on clothing. Wear goggles and face shield, protective clothing and rubber gloves. Avoid breathing vapor or spray mist. Keep container closed. Use with adequate ventilation. Do not take internally. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (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  
PESTICIDE STORAGE**

This product is corrosive to mild steel. Do not store or transport in unlined metal containers. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Keep product from freezing.

**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**

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by procedures approved by state and local authorities.

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

**CONDITIONS OF SALE AND WARRANTY**

Rohm and Haas warrants that this 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. ROHM AND HAAS 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 Rohm and Haas and Seller. Risks such as ineffectiveness or other unintended consequences resulting from, but not limited to, failure to follow directions will be assumed by the Buyer or User. IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE, OR USE OF THIS PRODUCT.

Date of Manufacture: location for date  
EPA Reg. No. 707-259  
EPA Est. No.

**DIRECTIONS FOR USE**

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

Refer to the table at the end of this section for dosing details for the following applications.

**INDUSTRIAL RECIRCULATING WATER COOLING TOWERS**

For the control of bacteria, algae and fungi add Klarix 4000 microbicide to the tower basin, distribution box, or some other point to insure uniform mixing. Treatment may be made by slug dosing or continuous dosing to achieve the desired level of biocide.

**DECORATIVE FOUNTAINS**

For the control of algae, fungi and bacteria, add Klarix 4000 microbicide to the basin, recirculation line or some other point in the system to insure uniform mixing. Treatment may be by slug dosing or continuous dosing to achieve the desired level of biocide.

For noticeably fouled systems, repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

lb. of product per 1000 gal fluid	fl oz of product per 1000 gal fluid	ppm of product	ppm active ingredient
0.39 lb.	5.9 fl oz	47 ppm	2 ppm
1.20 lb.	18 fl oz	141 ppm	6 ppm

When microbial control is evident, dose weekly or as needed to maintain control.

lb. of product per 1000 gal fluid	fl oz of product per 1000 gal fluid	ppm of product	ppm active ingredient
0.05 lb.	0.74 fl oz	5.9 ppm	0.25 ppm
0.39 lb.	5.90 fl oz	47.0 ppm	2.0 ppm

#### INDUSTRIAL RECIRCULATING CLOSED LOOP WATER COOLING SYSTEMS

For the control of bacteria, algae and fungi add Klarix 4000 microbicide to the reservoir, recirculating line, or some other point in the system to insure uniform mixing

For noticeably fouled systems, apply 47 - 141 ppm Klarix 4000 microbicide (2 - 6 ppm active ingredient) (0.39 - 1.2 pound or 5.9 - 18 fluid ounce) per 1000 gallon of water. Repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

When microbial control is evident, add 24 - 47 ppm Klarix 4000 microbicide (1 - 2 ppm active ingredient) (0.20 - 0.39 pound or 2.95 - 5.9 fluid ounce) per 1000 gallon of water. Dose weekly or as needed to maintain control.

The active ingredient in Klarix 4000 has FDA Clearances under 21CFR 176.170 (a)(b), 21CFR 176.180 (b)(1) and 21CFR 176.300 (c) for the following uses: wet lap and sheet pulp, pigment dispersions, mold proofing, components of paper and paperboard in contact with aqueous, fatty and dry foods, and papermill slimicide.

#### PAPERMILLS

To control fungal, bacterial and algal growth on paper and paperboard machines, add Klarix 4000 microbicide at 0.1 - 0.8 pound (1.5 - 12 fluid ounce) per ton of dry paper or paperboard produced at a location to insure uniform mixing (including beaters, wire pit, saveall tanks, headbox or machine chest). Treatment may be by slug or continuous dosing to achieve 12 - 94 ppm Klarix 4000 microbicide (0.5 - 4 ppm active ingredient) in the wet end portion of the system. Dosing frequency will depend on mill conditions and the level of microbial fouling.

For preparation of mold-resistant food contact paper or paperboard, Klarix 4000 microbicide may be dosed to achieve 588 - 2,355 ppm product (25 - 100 ppm active ingredient) on the final paper (dry basis). For uncoated paper or board, Klarix 4000 microbicide may be added to the surface sizing solution, water or other solvents and applied to the surface of the paper by means of applicator roll. It may also be added directly to the pulp slurry at the machine chest or headbox. For coated paper or paperboard, Klarix 4000 microbicide is incorporated into the coating mix prior to application of the coating to the paper.

#### PULP MILLS

To prevent fungal degradation of wood chips during storage, add Klarix 4000 microbicide at 0.6 - 3.5 pound (9 - 53 fluid ounce) per ton of oven-dry wood. It may be applied by water shower or drip feeder during transport of the chips on a conveyor belt to the storage pile.

For preservation of wet-lap or sheet pulp, Klarix 4000 microbicide should be added at 1.2 - 4.8 pound (18 - 72 fluid ounce) per ton of oven-dry fiber. It may be applied directly to the surface of the dewatered sheet by spray, water shower or application rollers or it may be dosed in the pulp slurry prior to dewatering of the sheet.

#### THE USES BELOW ARE NOT APPROVED FOR USE IN CALIFORNIA

##### DISPERSED PIGMENTS PRESERVATION

Klarix 4000 microbicide is recommended for the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as kaolin and montmorillonite clays, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, and magnesium silicate used in paint and paper production. Add 0.24 - 1.2 pound (3.6 - 18 fluid ounce) of Klarix 4000 microbicide per 1000 pound of fluid to provide 235 - 1176 ppm product (10-50 ppm active ingredient).

##### AIR WASHER SYSTEMS

Add Klarix 4000 microbicide to the air washer sump or chill water sump to insure uniform mixing for control of fungi, bacteria and algae.

For noticeably fouled systems, apply 47 - 141 ppm Klarix 4000 microbicide (2 - 6 ppm active ingredient) (0.39 - 1.2 pound or 5.9 - 18 fluid ounce) per 1000 gallon of water. Repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

When microbial control is evident, add 12 - 47 ppm Klarix 4000 microbicide (0.50 - 2 ppm active ingredient) (0.10 - 0.39 pound or 1.58 - 5.9 fluid ounce) per 1000 gallon of water. Dose weekly or as needed to maintain control.

**NOTE:** For use only in industrial air washing systems that maintain effective mist-eliminating components.

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**CAN WARMERS AND BREWERY PASTEURIZERS**

For the control of bacteria, algae and fungi in brewery pasteurizer and can warmer systems, add Klarix 4000 microbicide at a point in the system to insure uniform mixing.

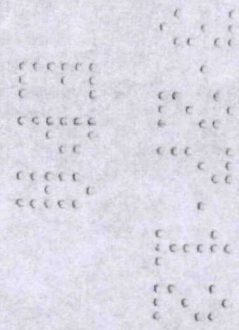
For noticeably fouled systems, repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

<u>lb. of product</u> <u>per 1000 gal fluid</u>	<u>fl oz of product</u> <u>per 1000 gal fluid</u>	<u>ppm of product</u>	<u>ppm active</u> <u>ingredient</u>
0.39 lb.	5.9 fl oz	47 ppm	2 ppm
1.20 lb.	18 fl oz	141 ppm	6 ppm

When microbial control is evident, dose weekly or as needed to maintain control.

<u>lb. of product</u> <u>per 1000 gal fluid</u>	<u>fl oz of product</u> <u>per 1000 gal fluid</u>	<u>ppm of product</u>	<u>ppm active</u> <u>ingredient</u>
0.05 lb.	0.74 fl oz	5.9 ppm	0.25 ppm
0.39 lb.	5.90 fl oz	47.0 ppm	2.0 ppm

Klarix™ 4000 microbicide weighs 8.5 pound per gallon.





**NEXT**

**LABEL**

707-259

04/12/2012

1/4

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



Office of Pesticide Programs

Rohm and Haas Company  
100 Independence Mall West  
Philadelphia, PA 19106-2399

APR 12 2012

Attention: Joanne Ryder

**Subject: KLARIX™ 4000 Industrial Microbicide**  
EPA Registration No. 707-259  
Amendment Dated February 1, 2012

The amendment, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable.

**Proposed Amendment**

- To correct the label language for use in papermills

**General Comments**

A stamped copy of the "accepted" product labeling is enclosed for your records.

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  
Antimicrobials Division (7510P)

Enclosure

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# KLARIX™ 4000

Industrial Microbicide for use in Recirculating Water Cooling Towers, Air Washer Systems, Pulp Mills, Papermill Slime Control, Recirculating Closed Loop Water Cooling Systems, Decorative Fountains, Can Warmer and Brewery Pasteurizers, and Dispersed Pigments.



100 INDEPENDENCE MALL WEST  
PHILADELPHIA, PA 19106  
TELEPHONE: (215) 592-3000

**ACTIVE INGREDIENT:**

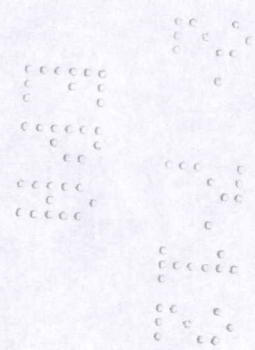
4,5-Dichloro-2-n-octyl-3(2H)-isothiazolone 4.25%

**INERT INGREDIENTS:**

95.75%

**TOTAL:** 100.00%

**KEEP OUT OF REACH OF CHILDREN  
DANGER  
FIRST AID**



**IF ON SKIN:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 min.
- 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 min.
- Remove contact lenses, if present, after first 5 min. 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.

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Have person sip a glass of water if able to swallow. Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**IN CASE OF EMERGENCY CALL ROHM AND HAAS COMPANY 215-592-3000**

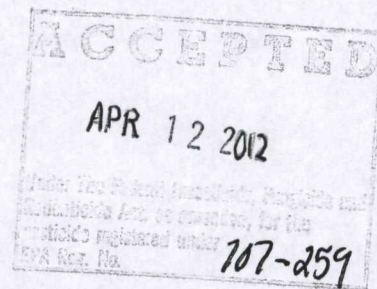
**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be necessary.

**SEE SIDE PANELS FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER**

- CORROSIVE**
- CAUSES IRREVERSIBLE EYE DAMAGE**
- HARMFUL IF ABSORBED THROUGH THE SKIN**
- CAUSES SKIN IRRITATION**
- HARMFUL IF INHALED**
- MAY CAUSE ALLERGIC SKIN REACTION**



This product is a dermal sensitizer. Do not get in eyes, on skin, or on clothing. Wear goggles and face shield, protective clothing and rubber gloves. Avoid breathing vapor or spray mist. Keep container closed. Use with adequate ventilation. Do not take internally. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (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**

**PESTICIDE STORAGE**

This product is corrosive to mild steel. Do not store or transport in unlined metal containers. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Keep product from freezing.

**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**

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by procedures approved by state and local authorities.

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

**CONDITIONS OF SALE AND WARRANTY**

Rohm and Haas warrants that this 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. ROHM AND HAAS 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 Rohm and Haas and Seller. Risks such as ineffectiveness or other unintended consequences resulting from, but not limited to, failure to follow directions will be assumed by the Buyer or User. IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE, OR USE OF THIS PRODUCT.

Date of Manufacture: location for date  
EPA Reg. No. 707-259  
EPA Est. No.

**DIRECTIONS FOR USE**

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

Refer to the table at the end of this section for dosing details for the following applications.

**INDUSTRIAL RECIRCULATING WATER COOLING TOWERS**

For the control of bacteria, algae and fungi add Klarix 4000 microbicide to the tower basin, distribution box, or some other point to insure uniform mixing. Treatment may be made by slug dosing or continuous dosing to achieve the desired level of biocide.

**CAN WARMERS AND BREWERY PASTEURIZERS**

For the control of bacteria, algae and fungi in brewery pasteurizer and can warmer systems, add Klarix 4000 microbicide at a point in the system to insure uniform mixing.

**DECORATIVE FOUNTAINS**

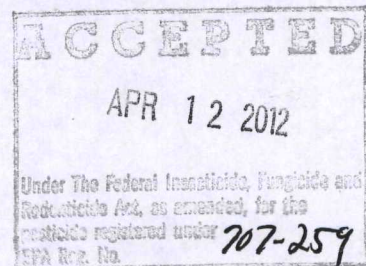
For the control of algae, fungi and bacteria, add Klarix 4000 microbicide to the basin, recirculation line or some other point in the system to insure uniform mixing. Treatment may be by slug dosing or continuous dosing to achieve the desired level of biocide.

For noticeably fouled systems, repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

lb. of product per 1000 gal fluid	fl oz of product per 1000 gal fluid	ppm of product	ppm active ingredient
0.39 lb.	5.9 fl oz	47 ppm	2 ppm
1.20 lb.	18 fl oz	141 ppm	6 ppm

When microbial control is evident, dose weekly or as needed to maintain control.

lb. of product per 1000 gal fluid	fl oz of product per 1000 gal fluid	ppm of product	ppm active ingredient
0.05 lb.	0.74 fl oz	5.9 ppm	0.25 ppm
0.39 lb.	5.90 fl oz	47.0 ppm	2.0 ppm



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**AIR WASHER SYSTEMS**

Add Klarix 4000 microbicide to the air washer sump or chill water sump to insure uniform mixing for control of fungi, bacteria and algae.

For noticeably fouled systems, apply 47 - 141 ppm Klarix 4000 microbicide (2 - 6 ppm active ingredient) (0.39 - 1.2 pound or 5.9 - 18 fluid ounce) per 1000 gallon of water. Repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

When microbial control is evident, add 12 - 47 ppm Klarix 4000 microbicide (0.50 - 2 ppm active ingredient) (0.10 - 0.39 pound or 1.58 - 5.9 fluid ounce) per 1000 gallon of water. Dose weekly or as needed to maintain control.

**NOTE:** For use only in industrial air washing systems that maintain effective mist-eliminating components.

**INDUSTRIAL RECIRCULATING CLOSED LOOP WATER COOLING SYSTEMS**

For the control of bacteria, algae and fungi add Klarix 4000 microbicide to the reservoir, recirculating line, or some other point in the system to insure uniform mixing

For noticeably fouled systems, apply 47 - 141 ppm Klarix 4000 microbicide (2 - 6 ppm active ingredient) (0.39 - 1.2 pound or 5.9 - 18 fluid ounce) per 1000 gallon of water. Repeat until control is achieved. Badly fouled systems should be cleaned before treatment is begun.

When microbial control is evident, add 24 - 47 ppm Klarix 4000 microbicide (1 - 2 ppm active ingredient) (0.20 - 0.35 pound or 2.95 - 5.9 fluid ounce) per 1000 gallon of water. Dose weekly or as needed to maintain control

**The active ingredient in Klarix 4000 has FDA Clearances under 21CFR 176.170 (a)(b), 21CFR 176.180 (b)(1) and 21CFR 176.300 (c) for the following uses: wet lap and sheet pulp, pigment dispersions, mold proofing, components of paper and paperboard in contact with aqueous, fatty and dry foods, and papermill slimicide.**

**DISPERSED PIGMENTS PRESERVATION**

Klarix 4000 microbicide is recommended for the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as kaolin and montmorillite clays, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, and magnesium silicate used in paint and paper production. Add 0.24 - 1.2 pound (3.6 - 18 fluid ounce) of Klarix 4000 microbicide per 1000 pound of fluid to provide 235 - 1176 ppm product (10-50 ppm active ingredient).

**PAPERMILLS**

To control fungal, bacterial and algal growth on paper and paperboard machines, add Klarix 4000 microbicide at 0.1 - 0.8 pound (1.5 - 12 fluid ounce) per ton of dry paper or paperboard produced at a location to insure uniform mixing (including beaters, wire pit, saveall tanks, headbox or machine chest). Treatment may be by slug or continuous dosing to achieve 12 - 94 ppm Klarix 4000 microbicide. (0.5 - 4 ppm active ingredient) in the wet end portion of the system. Dosing frequency will depend on mill conditions and the level of microbial fouling.

For preparation of mold-resistant food contact paper or paperboard, Klarix 4000 microbicide may be dosed to achieve 588 - 2,353 ppm product (25 - 100 ppm active ingredient) on the final paper (dry basis). For uncoated paper or board, Klarix 4000 microbicide may be added to the surface sizing solution, water or other solvents and applied to the surface of the paper by means of applicator roll. It may also be added directly to the pulp slurry at the machine chest or headbox. For coated paper or paperboard, Klarix 4000 microbicide is incorporated into the coating mix prior to application of the coating to the paper.

**PULP MILLS**

To prevent fungal degradation of wood chips during storage, add Klarix 4000 microbicide at 0.6 - 3.5 pound (9 - 53 fluid ounce) per ton of oven-dry wood. It may be applied by water shower or drip feeder during transport of the chips on a conveyor belt to the storage pile.

For preservation of wet-lap or sheet pulp, Klarix 4000 microbicide should be added at 1.2 - 4.8 pound (18 - 72 fluid ounce) per ton of oven-dry fiber. It may be applied directly to the surface of the dewatered sheet by spray, water shower or application rollers or it may be dosed in the pulp slurry prior to dewatering of the sheet.

Klarix™ 4000 microbicide weighs 8.5 pound per gallon.

