



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 12, 2023

Daniel Skall  
Senior Regulatory Specialist  
Nutrition & Biosciences USA 2, LLC  
Electronic Transmittal: [daniel.skall@lanxess.com](mailto:daniel.skall@lanxess.com)

Subject: Notification per PRN 98-10 – Update company name/address, emergency number and remove optional text  
Product Name: KLARIX™ 4000 Industrial Microbicide  
EPA Registration Number: 707-259  
Received Date: October 17, 2022  
Action Case Number: 00401346

Dear Daniel Skall:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Assurance.

If you have any questions, please contact Zebora Johnson at (202) 566-0730 or by email at [johnson.zebora@epa.gov](mailto:johnson.zebora@epa.gov).

Sincerely  
*Zebora Johnson*

For  
Steven Snyderman, Product Manager 33  
Regulatory Management Branch II  
Antimicrobial’s Division OPP

# KLARIX™ 4000 Industrial Microbicide

Produced For – *When produced by a contract manufacturer*

ROHM AND HAAS COMPANY  
A Wholly Owned Subsidiary of The Dow Chemical Company  
400 Areola Road  
Collegeville, PA, 19426  
Phone: 989-636-4400

NUTRITION & BIOSCIENCES USA 2, LLC  
1652 Larkin Center Drive  
Midland, MI 48642  
Phone: 1-800-526-3649

KLARIX™ is a registered trademark of Lanxess Corporation.



®™ 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%
<b>OTHER INGREDIENTS:</b>	<b>95.75%</b>
<b>TOTAL:</b>	<b>100.00%</b>

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 by mouth 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 AN EMERGENCY** endangering life or property involving this product, call CHEMTREC (800)-424-9300

**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

## NOTIFICATION

707-259

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

04/12/2023

KLARIX™ 4000 Industrial Microbicide  
 Date: October 13, 2022  
**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.

**PHYSICAL AND CHEMICAL HAZARDS**

This product is corrosive to mild steel.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

**PESTICIDE STORAGE**

Do not store or transport in unlined metal containers. 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**

Non-Refillable Container. Do not reuse or refill this container. Offer for recycling or reconditioning, or puncture and dispose of sanitary landfill, or by procedures by state or local authorities.

**NOTICE**

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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 this product 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 this product 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.

<u>lb. of product per 1000 gal fluid</u>	<u>fl oz of product per 1000 gal fluid</u>	<u>ppm of product</u>	<u>ppm active 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 per 1000 gal fluid</u>	<u>fl oz of product per 1000 gal fluid</u>	<u>ppm of product</u>	<u>ppm active 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

### **INDUSTRIAL RECIRCULATING CLOSED LOOP WATER COOLING SYSTEMS**

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

For noticeably fouled systems, apply 47 - 141 ppm product (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 product (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.

### **PAPERMILLS FOR FOOD CONTACT**

To control fungal, bacterial and algal growth on paper and paperboard machines, add this product 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 product. (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 and paperboard, this product 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, this product 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, this product is incorporated into the coating mix prior to application of the coating to the paper.

The active ingredient in this product 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 FOR NON-FOOD CONTACT**

To control fungal, bacterial and algal growth on paper and paperboard machines, add this product 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 product. (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 non-food contact paper and paperboard, this product 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, this product 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, this product is incorporated into the coating mix prior to application of the coating to the paper.

If needed, higher use rates (up to 11,765 ppm product or 500 ppm active ingredient) may be added for the preparation of non-food contact paper, paperboard and wallboard paper. The higher use rates must be added via a closed dosing system using metering pumps. When the higher rate is used, the effluent must be processed through a waste water treatment facility prior to release.

**NOTE: THE HIGHER USE RATE IS NOT APPROVED IN THE STATE OF CALIFORNIA.**

### **PULP MILLS**

For preservation of wet-lap or sheet pulp, this product 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**

This product 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 product per 1000 pound of fluid to provide 235 - 1176 ppm product (10-50 ppm active ingredient).

#### **AIR WASHER SYSTEMS**

Add this product 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 product (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 product (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.

**CAN WARMERS AND BREWERY PASTEURIZERS**

For the control of bacteria, algae and fungi in brewery pasteurizer and can warmer systems, add this product 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.

<b><u>lb. of product per 1000 gal fluid</u></b>	<b><u>fl oz of product per 1000 gal fluid</u></b>	<b><u>ppm of product</u></b>	<b><u>ppm active ingredient</u></b>
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.

<b><u>lb. of product per 1000 gal fluid</u></b>	<b><u>fl oz of product per 1000 gal fluid</u></b>	<b><u>ppm of product</u></b>	<b><u>ppm active ingredient</u></b>
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

This product weighs 8.5 pound per gallon.