

74602-3

8/6/2003

Page 178

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

August 6, 2003

Kenneth Howlett  
 Verox Group, LLC  
 1220 North Market Street  
 Suite 606  
 Wilmington, DE 19801

Subject: VEROX-8  
 EPA File Registration No. 74602-3  
 Application Date: June 24, 2003  
 Receipt Date: June 26, 2003

Dear Mr. Howlett:

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

- remove two sentences from "Paper Processing" claim.

### Condition

Revise the Ingredient statement as follows:

Active Ingredient:	
Sodium Chlorite .....	8.3%
Other Ingredients .....	91.7%
Total	100.0%

### General Comments

This proposed label discusses the use of a product named Verox-AX, which you have identified as the citric acid activator on your October 17, 2002 Confidential Statement of Formula.

A stamped copy of the labeling accepted with conditions is enclosed. Submit a copy of your final printed labeling before distributing or selling the product bearing the revised labeling.

CONCURRENCES							
SYMBOL	75700						
SURNAME	Howlett						
DATE	8-6						

*The copies of your Acute Toxicity reviews are enclosed for your records.*

*Should you have any questions or comments concerning this letter, please contact Wanda Mitchell at (703) 308-6345.*

*Sincerely,*

A handwritten signature in black ink, appearing to read 'R. S. Brennis', with a stylized flourish at the end.

*Robert S. Brennis  
Product Manager - Team 32  
Regulatory Management Branch II  
Antimicrobials Division (7510C)*

AUG - 6 2003

# VEROX<sup>®</sup> 8

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 74602-3

**ACTIVE INGREDIENT:**

Sodium Chlorite\* ..... 8.3%

**INERT INGREDIENTS** ..... 91.7%

**Total** ..... 100.0%

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See Side Panels for Additional Precautions

### FIRST AID

- |                                |  |
|--------------------------------|--|
| <b>If on skin or Clothing:</b> | Take off contaminated clothing.<br>Rinse skin immediately with plenty of water for 15-20 minutes.<br>Call a poison control center or doctor immediately for treatment advice.  |
| <b>If swallowed:</b>           | Call a poison control center or doctor immediately for treatment advice.<br>Have a person sip a glass of water if able to swallow.<br>Do not induce vomiting unless told to do so by the poison control center or doctor.  |
| <b>If Inhaled:</b>             | 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 poison control center or doctor for treatment advice.<br>Do not give anything mouth to an unconscious person. |
| <b>If in eyes:</b>             | 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.  |

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

### 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 1-800-858-7378 for emergency medical treatment information.

**EPA REG. NO. 74602-3**

**EPA EST. 74602-DE-001  
EPA EST. 74602-GA-001  
EPA EST. 74602-75435GA**

4 7 8

ACCEPTED  
with COMMENTS  
EPA Letter Dated:

**Manufactured by:**  
The Verox Group, LLC  
Wilmington, DE 19801

**NET CONTENTS:** AUG - 6 2003 gal  
liters

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 74602-3

## **PRECAUTIONARY STATEMENTS**

### **CAUTION**

#### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**IRRITANT.** Harmful if swallowed. Causes eye irritation. Avoid contact with skin, eyes or clothing. Irritating to nose and throat. Avoid breathing spray mist. In case of contact, immediately flush eyes and skin with plenty of water. Get medical attention if irritation persists.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with the requirements of a National Pollution 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.

#### **PHYSICAL OR CHEMICAL HAZARDS**

**DO NOT** mix VEROX® 8 with acids or other chemicals except water. Mixing with acid or other chemicals may cause evolution of chlorine dioxide gas, which is poisonous and explosive.

**DO NOT** let spilled solution evaporate to dryness. If resultant residue contacts oxidizable or combustible materials, the mixture is easily ignited by heat or friction. This results in a fiercely burning fire, or in a confined space, a possible explosion. Examples of such materials are cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solvents, rubber, leather, plastics, and organic substances in general; also sulfur, sulfides, powdered metals, phosphorous and ammonium compounds.

#### **EMERGENCY HANDLING**

In case of contamination or decomposition, do not reseal container. Isolate in an open, well-ventilated location. Flood with large volumes of water.

#### **STORAGE AND DISPOSAL**

##### **DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.**

**Storage:** Do not store this product with oxidizers, acids, reducing agents, or combustible materials. Store in a cool, dry well-ventilated location away from direct sunlight. Protect from freezing. Store upright and do not stack over two drums per pallet. A drum pump is recommended for transferring this material. Keep drums tightly closed when not in use. Store only in the original containers or approved storage containers and guard against cross-contamination with other pesticides, fertilizers, food and feed. Do not reuse containers.

**Pesticide Disposal:** Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Triple rinse (or equivalent) all containers and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Spills:** In case of spills, dilute with large quantities of water and flush to a designated sewer in accordance with all applicable federal, state and local regulations. Alternatively, this product may be flushed to a collection basin or container for disposal. Comply with all applicable federal, state and local regulations regarding spill notification requirements.

### **AS A PAPER PROCESSING SLIMICIDE IN WHITE WATER SYSTEMS:**

This product has FDA GRAS status when used as a slimicide in the manufacture of paper and paperboard that contacts food (21 CFR 186.1750).

### **APPLICATION DIRECTIONS:**

(1) Use 5 to 15 gallons of VEROX<sup>®</sup> 8 per 100,000 gallons of white water to be treated. Alternatively, use 2 to 4 gallons VEROX<sup>®</sup> 8 per 100 tons of paper produced.

### **FOR ENCLOSED AND RECIRCULATING WATER SYSTEMS:**

VEROX<sup>®</sup> 8 should be injected at a point in the system where it will undergo uniform mixing. It is recommended that the product be applied directly into a recirculating water line. Badly fouled systems should be cleaned prior to treatment.

**INITIAL DOSE--** When the system is noticeably fouled, apply 1 gallon of VEROX<sup>®</sup> 8 per 10,000 gallons of water in the system. Repeat dosage every 24 hours until acceptable microbiological quality is achieved. Usually 3 to 6 applications will suffice.

**SUBSEQUENT DOSE --** After acceptable microbiological quality is achieved, the system may be maintained by adding 3 doses of VEROX<sup>®</sup> 8 every 14 to 24 days or as often as required for control. Each dose consists of 1 gallon of VEROX<sup>®</sup> 8 per 10,000 gallons water in the system repeated every 24 hours for a total of 3 additions. Treatment may then be discontinued for another 14 to 24 days or until fouling again becomes evident.

### **SPECIFIC APPLICATIONS**

VEROX<sup>®</sup> 8 may be used to treat enclosed and recirculating systems in the following application.

- A. Dairy--Sweet water systems to reduce microbiological levels.
- B. Farming--Irrigation systems for slime reduction in tubing and piping.
- C. Papermills -- General water treatment to reduce microbiological growth.
- D. Oilfield--To improve secondary recovery process water quality.
- E. General Industrial Applications Including Food Processing -- To reduce microbiological growth in cooling towers and industrial process water, including

**ACCEPTED  
with COMMENTS  
EPA Letter Dated:**

AUG - 6 2003

under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 74662-3

wash water of uncut and unpeeled fruits and vegetables. (Note: Residual concentrations of up to 5 ppm chlorine dioxide in process water may be used for washing whole uncut fruits and vegetables although a final potable water rinse is required if the residual exceeds 1 ppm).

### FOR FOGGING AND MISTING APPLICATIONS:

VEROX<sup>®</sup> 8 may be added to the plant misting or fogging systems to deodorize and to control odor causing bacteria, mold and mildew in food processing plants, dairies, bottling plants, poultry, meat and fish plants and animal facilities such as poultry houses, swine pens, calf barns and kennels.

#### Application Directions:

When fogging rooms with VEROX<sup>®</sup> 8, care should be taken not to exceed the TLV-TWA of 0.1 ppm (0.30 mg/m<sup>3</sup>). If the TLV-TWA is to be exceeded, turn off air handlers and vacate people and livestock from the rooms to be fogged or misted. Ventilate for 15 minutes prior to reentry.

(1) Mix 1.5 ml to 30 ml VEROX<sup>®</sup> 8 per gallon of water. To this dilution, add a sufficient amount of 1 to 3% by weight of an aqueous food grade acid solution (phosphoric, citric, acetic) to lower the pH to 3.5 to 5.0.

(2) Allow this diluted mixture to react for at least 15 minutes before adding to the plant fogging or misting system.

(3) For best result, fogging or misting with diluted, acidified VEROX<sup>®</sup> 8 should be done as close to the ceiling as possible.

**NOTE** -- Be careful not to add concentrated acid solutions to undiluted VEROX<sup>®</sup> 8 as high concentrations of chlorine dioxide gas may evolve. The concentration of chlorine dioxide in the diluted VEROX<sup>®</sup> 8 solution should not be allowed to exceed 0.5 ppm as determined by the Hach DPD method for chlorine dioxide detection. Please consult your NuTek International, Inc. representative for exact testing procedures before adding any acid to VEROX<sup>®</sup> 8. The use of VEROX<sup>®</sup> 8 in fogging or misting should be accompanied by a regular air monitoring program.

### TO PREVENT CORROSION AND SLIME FORMATION IN OIL FIELD SECONDARY RECOVERY OPERATIONS:

#### Application Directions:

(1) Prepare a working solution by diluting each gallon of VEROX<sup>®</sup> 8 to be used with 6 gallons injection water.

(2) Proportion 1 part of the diluted VEROX<sup>®</sup> 8 solution into 130 to 140 parts reinjection water acidified to a pH of 3.0 to 4.0.

ACCEPTED  
with COMMENTS  
EPA Letter Dated:

AUG - 6 2003  
4

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,

74602-3  
74602-3

(3) Increase or decrease the dose rate of the VEROX<sup>®</sup> 8 solution as indicated by monitoring the microbial quality of the water.

### **POULTRY PROCESSING:**

**Carcass sprays, dips, rinses:** VEROX<sup>®</sup> 8 may be used as an equipment rinse and carcass spray or dip at a use rate of 0.7 to 1.7 ounces per gallon (500 - 1200 ppm sodium chlorite) in combination with any GRAS acid at levels sufficient to achieve a solution pH of 2.5 to 2.9.

**Chill water application:** VEROX<sup>®</sup> 8 is a source of sodium chlorite for treating poultry chill water and pre-chill water when used at a rate of 0.1 to 0.3 ounces per gallon in combination with any GRAS acid at levels sufficient to achieve a solution pH of 2.8 to 3.2.

### **TO DISINFECT AND SANITIZE AGAINST ODOR CAUSING BACTERIA ON HARD NON-POROUS SURFACES, SUCH AS WALLS, CEILINGS, FLOORS, DRAINS, PIPELINES, COUNTERS, SINKS, TILES:**

- (1) Before disinfection or sanitization, remove gross debris, food and beverages from the surfaces to be cleaned.
- (2) Add 1 to 2 fluid ounces VEROX<sup>®</sup> 8 per five (5) gallons of water to be used [100-200 ppm available chlorine dioxide; 21 CFR 178.1010 (b)(34), (c)(29)]
- (3) The VEROX<sup>®</sup> 8 solution may be applied by spraying, misting, pouring, or wiping onto the surface to be treated. Allow the VEROX<sup>®</sup> 8 solution to contact the surface for at least 5 minutes before wiping off.

### **TO CONTROL SLIME AND MOLD GROWTH ON FOOD PROCESS AND BEVERAGE CONVEYORS:**

VEROX<sup>®</sup> 8 may be sprayed on food process conveyors to control mold and slime build-up that leads to product contamination and possible belt slippage. Apply VEROX<sup>®</sup> 8 at a rate of 1 to 2 fluid ounces per 5 gallons of water either by itself or in combination with a non-reactive water based lubricant.

ACCEPTED  
with COMMENTS  
EPA Letter Dated:

AUG - 6 2003

### **FOR DEODORIZATION:**

VEROX<sup>®</sup> 8 effectively eliminates odors in the air and at their source.

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 74602-3

- (1) Before deodorization, remove unopened and unwrapped food and beverages from the area to be treated.
- (2) Dilute a minimum of 0.5 fluid ounces of VEROX<sup>®</sup> 8 per gallon of water to be used. For severe conditions, VEROX<sup>®</sup> 8 may be used undiluted.

8 8 8

12-17-02 Revisions:

(3) For room deodorization, spray, pour, or wipe the VEROX<sup>®</sup> 8 solution as needed. For best results, apply the VEROX<sup>®</sup> 8 as near to the center of the area to be treated as possible.

(4) For surface deodorization, spray, pour, or wipe the VEROX<sup>®</sup> 8 on the effected area as often as necessary. For best results, allow to air dry for 10 minutes after treatment and then rinse surfaces treated with potable water.

**TO CONTROL MOLD AND MILDEW:**

VEROX<sup>®</sup> 8 is effective in controlling mold and mildew on bathroom surfaces, shower stalls, on curtains, in laundry rooms, hampers, and on other surfaces where mold and mildew may be present.

(1) Before treatment, remove gross filth and debris from the affected surfaces. Remove all open and unwrapped food and beverages from the vicinity.

(2) Dilute a minimum of 1 2 fl.oz. of VEROX<sup>®</sup> 8 per gallon of water to be used. For several applications, VEROX<sup>®</sup> 8 may be used undiluted.

(3) Spray, mist, fog, pour or wipe the VEROX<sup>®</sup> 8 solution onto the surface to be treated. Allow the VEROX<sup>®</sup> 8 to contact the surface for at least 5 minutes. Allow surfaces to drain and air dry. After 30 minutes, rinse with water. Repeat as necessary.

**DOT SHIPPING NAME:**  
**CHLORITE SOLUTION**  
**8(Corrosive); UN 1908; PGIII**

**ACCEPTED**  
**with COMMENTS**  
**EPA Letter Dated:**

AUG - 6 2003

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 74602-3