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



# United States Environmental Protection Office of Pesticide Programs Agency

MAR 11 2009

FILE COPY

Arthur J. Freedman, PhD Agent for Feedwater Ltd. 1415 Crystal Court Napierville, IL 60563-0142

Subject:

Activ-Ox 20

EPA Registration No. 83071-1 Application Date: December 2, 2008 Receipt Date: February 17, 2009

Dear Dr. Freedman:

This acknowledges receipt of your notification, submitted under the provision of PR Notice 98-10, FIFRA section 3(c)9.

# **Proposed Notification:**

 Addition of the following text: "This product degrades with age and exposure to sunlight and heat. Use a test kit and increase dosage to obtain the required level of available chlorine dioxide."

### **General Comments:**

The notification is acceptable and a copy has been inserted into your file for future reference.

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

Sincerely,

Wanda Y. Hensen Product Reviewer (32)

Regulatory Management Branch II Antimicrobials Division (7510P)

Please reed instructions on r	everse before completing form.	Form Appr	oved. OMB No. 2070-0060	A THE POINT OF
<b>\$E</b> PA	United States Environmental Protection Washington, DC 204		Registration Amendment Other	OPP Hantifier Number
Application for Pesticide - Section I				
1. Company/Product Number 83071-1		2. EPA Product Man Emily Mitchell	ager 3. P	roposed Classification
4. Company/Product (Name) Activ-Ox 20		PM# 32	· .	None Restricted
5. Name and Address of App Feedwater Ltd c/o Arthu Agent for Feedwater Ltd 1415 Crystal Court, Nape Check if this	r J. Freedman		riew. In accordance with is similar or identical in ci	
Resubmission in resp	onse to Agency letter dated	Agency let	Application,	
Explanation: Use edditional pagets) if necessary. (For section I and Section II.)  A change in the advisory statement, to read: "This product degrades with age and exposure to sunlight and heat. Use a test kit and increase dosage as necessary to obtain the required level of available chlorine dioxide." This statement is highlighted on the label. This statement is placed under the Product Name and within the Directions for Use.				
		Section - III		A COLOR OF BUILDING TO SERVICE AND A SERVICE
1. Material This Product Will Child-Resistant Packaging Yes*  X No  * Cartification must be submitted	Be Packaged In:  Unit Packaging  Yes  No  If "Yes" Unit Packaging wgt. container	Water Soluble Packaging Yes No If "Yes" No. per Package wgt contains	2. Type of Containe  Metal  Metal Plestic Glass Paper Other	
3 Location of Net Contents Information 4. Size(s) Retail Container 5. Location of Label Directions  Container 5 g, 30 g, 55 g  Container 5 no Label On Label				
6: Manner in Which Label is	Affixed to Product  Affixed to Product  Paper Stence	raph Othe		
Section - IV				
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)				
Name Arthur J. Freedman, Ph.D.		I Almanda Cau Pandara and I dad:		ne No. (Include Area Code) 357-3094
Certification  [certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.  [lacknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.  6. Date Application  Received  [Stamped]				
		3. Tগ্ৰেচ Agent for Feedwater, Ltd.		
4. Typed Name Arthur J. Freedman, Ph.C	<b>),</b>	5. Date Dec. 2,:2008		

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

Attention:

Ms. Emily Mitchell

Subject:

ACTIV-OX 20, EPA Reg. No. 83071-1

Notification to amend advisory statement

Dear Ms. Mitchell:

Feedwater Ltd. is submitting a Notification to amend the advisory statement on the subject label. The new statement will also be added to the text under "Directions for Use" and is so highlighted. The new advisory statement conforms with other registered products using the same active ingredients, and is more appropriate for accuracy in the use of the product.

# Enclosed please find:

- EPA Notification Form 8570-1
- 5 copies of the ACTIV-OX 20 label with one copy highlighting the amended statement.

Please contact Ms. Joan Young at (607) 264-8192, or myself, with any questions or comments on this matter. Thank you.

Very truly yours,

Arthur J. Freedman, Ph.D. Agent for Feedwater Ltd.

Total Treeding 040

1415 Crystal Court

Naperville, IL 60563-0142

(630) 857-3094

#### **CENTER PANEL**

# ACTIV-OX®

This product degrades with age and exposure to sunlight and heat. Use a test kit and increase dosage as necessary to obtain the required level of available chlorine dioxide.

CHLORINE DIOXIDE PRECURSOR FOR MICROBIAL AND BACTERIAL SLIME CONTROL IN WATER, WASTEWATER, AND CLEANING SOLUTIONS IN INDUSTRIAL COOLING WATER SYSTEMS AND PAPER MILLS.
FOR CONTROL OF ALGAE AND MOLLUSK IN INDUSTRIAL COOLING AND SERVICE WATER SYSTEMS.
FOR DISINFECTION AND DESTRUCTION OF PHENOLICS, SIMPLE CYANIDES, AND SULFIDES IN WATER.

Active Ingredients: Sodium Chlorite Sodium Hypochlorite

Available chlorine:.....

## KEEP OUT OF REACH OF CHILDREN

#### FIRST AID STATEMENT

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 and continue rinsing eye.

- Call a poison control center or doctor for treatment advice

If swallowed:

Call 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 the poison control center or doctor.

- Do not give anything by mouth to an unconscious person.

If inhaled:

Move person to fresh air

Tiperson is not breathing call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible.

Call a poison control center or doctor for further treatment advice.

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

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

See side panel for additional precautionary statements.

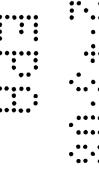
# FEEDWATER LTD

**Tarran Way West** Moreton, Wirral, UK CH46 4TU

Phone: +44 (151) 606-0808 EPA Registration No. 83071-1 Emergency Phone: +44 (186) 540-7333

EPA Establishment No.

NET CONTENTS STENCILED ON CONTAINER



#### LEFT PANEL

#### PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS

CORROSIVE. Causes irreversible eye damage and skin burns. May be fatal if absorbed through skin. Avoid breathing spray mist. Wear protective clothing, goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating or drinking or using tobacco. May be fatal if swallowed. In case of contact, immediately flush eyes and skin with plenty of water. Get medical attention if irritation persists.

# HARMFUL OR FATAL IF SWALLOWED MAY CAUSE SKIN/EYE DAMAGE AVOID CONTACT WITH EYES

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 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 local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

### PHYSICAL OR CHEMICAL HAZARDS

Do not mix with acids or other chemicals except water. Mixing with acid or other chemicals may cause evolution of chelorine 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 make a confined space, a possible explosion. Examples of such materials are cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth, paper, wood, sawdust, hydrocarbons such as greases, oils, and solven burning fire or make a cloth burning fire or make a clo powered 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.

### STORE IN A COOL DARK PLACE KEEP FROM FREEZING

## 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 directisting protect from freezing. Store upright and do not stack pallets over two drums high. A clean non-metallic drum pump free of all other chemicals is recommended for transferring this material. Keep driums tightly closed when not in use. Store only in the original containers or approved storage containers, and guard against cross-containmation with other pesticides, fertilizers, food and feed. Do not reuse containers.

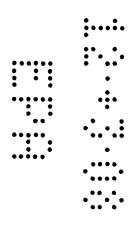
containers.

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 other procedures approved by state and local authorities.

Spills: In case of spills, dilute with large quantities for 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.





#### Right Side Panel or Panels

#### DIRECTIONS FOR USE

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

Method of feed: Chlorine dioxide is produced by activating ACTIV-OX $^{\circ}$  20 with an acid solution specifically designed so that when equal parts of ACTIV-OX $^{\circ}$  20 and this acid solution are pumped into the small mixing chamber specifically designed for this application, the resulting pH of the mixture in this chamber will be < 2.5. This mixture is then discharged immediately into a sidestream of water from the system to be treated. The pH in the mixing chamber must be < 2.5 for complete conversion of sodium chlorite to chlorine dioxide. The mixing chamber will contain about a 1 percent solution (10,000 ppm) of chlorine dioxide, which should then be immediately diluted 100:1 or greater when fed into the water stream being treated.

"The concentration of chlorine dioxide in the effluent from the reaction chamber or diluted in the sidestream of water can be readily measured with any of the common field test kits for oxidizing agents used in other chlorine dioxide applications, e.g. the DPD method. An ORP (oxidation-reduction potential) probe will respond instantly to the presence of chlorine dioxide, so that an ORP controller can be used to control the two pumps if desired. For more precise determinations, standard amperometric titration methods can be used."

ACTIV-OX 20 degrades with age. Use a test kit and increase dosage as necessary to obtain the required level of available chlorine dioxide.

Your water treatment service company representative can guide you in the selection, installation and operation for feed systems. Consult product bulletin and also the instructions on the chlorine dioxide feed and activation system before using ACTIV-OX 20. User is responsible for compliance with applicable federal, state and local laws regarding properties and disposal of the chlorine dioxide produced.

Chlorine dioxide generated from ACTIV-OX® 20 and one of the specified acid solutions may be used for the following:

Industrial Cooling Water Treatment, Heat Transfer Systems (evaporative condensers, dairy sweetwater systems, hydrostatic sterilizers and retorts, coolers, warmers, and bottling plants.), Service Water, and Auxiliary Water Systems: (Acids other than hydrochloric can be used to generate chlorine dioxide for this application.)

for control of bacterial slime and algae in industrial recirculating and one-pass cooling systems. The required dosages of chlorine dioxide will vary depending on the exact application and the degree of contamination present. The required chlorine dioxide residual concentrations range between 0.1 and 5.0 ppm. Chlorine dioxide may be applied either continuously or intermittently. The typical chlorine dioxide residual concentration range is 0.1-1.0 ppm for continuous doses, and 0.1 - 5.0 ppm for intermittent doses. The minimum acceptable residual concentration of chlorine dioxide is 0.1 ppm for a minimum one minimum contact time.

Food Plant Process Water Treatment: (Hydrochloric Acid must be used to generate chlorine dioxide for this application.)
For odor and microbial control in typical food processing water systems such as flume transport, chill water systems, and hydrocoolers. The required dosages will vary with process conditions and the degree of contamination present. Depending on the requirements of the specific water system, apply chlorine dioxide continuously or intermittently to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm. A chlorine dioxide solution may be used for microbial control in accordance with 21 GFR § 173.300 as, a water sanitizer for fruit and vegetable washing and cut and peeled potatoes without a subsequent potable water rinse requirement, provided that the concentration of total residual variants meet the residual limitation of ≤ 1.0 ppm. Water, containing up to 3 ppm residual chlorine dioxide may be used for washing uncut and unpeeled fruits and vegetables. Treatment of the fruits and vegetables must be followed by a potable water rinse if the chlorine dioxide residual exceeds 1 ppm. Potatoes, including those which have been peeled or citi may be treated with sufficient chlorine dioxide to produce a residual concentration of up to 5.0 ppm provided this is followed by a potable water rinse or by blanching, cooking or canning.

Controlling Microbial Population In Roultry Processing Plant Waters in Federally Inspected Plants: (Hydrochloric Acid must be used to

generate chlorine dioxide for this application.)

For use as an antimicrobial agent in accordance with 21CFR§173:300 in poultry processing waters provided that the residual concentration of chlorine dioxide does not exceed 3 ppm. Maintain a residual concentration of ppm of the provided that the residual concentration of chlorine dioxide does not exceed 3 ppm. Maintain a residual concentration of the chill tank. The chlorine dioxide feed solution should be fed below the water level in the chill water and recycle water tanks.

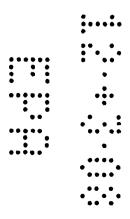
Public Water Systems: (Hydrochloric Acid must be used to generate chlorine dioxide for this application.)

For use in public water treatment facilities that produce potable drinking water in compliance with the Safe Drinking Water Act under 40CFR§141. The required dosages will vary with the source water conditions and the degree of contamination present. For most municipal and public potable water systems, a chlorine dioxide residual concentration of up to 2 ppm is sufficient to provide adequate disinfection. For removal of sulfide odor between pH 5-9, feed a minimum of 2.7 ppm chlorine dioxide to instantly oxidize each 1 ppm of sulfide. The concentration of total residual oxidants (chlorine dioxide, chlorite ion and chlorate ion) should be monitored such that it does not exceed 1.0 ppm in the distribution system.

Aqueous Disinfection Systems For CIP Cleaning: (Acids other than hydrochloric can be used to generate chlorine dioxide for this

As an antimicrobial agent in the recirculating eleaning solution. If the required dosage exceeds 5.0 ppm chlorine dioxide, a potable water rinse

Bacterial Slime Control in Paper Mills: (Acids other than hydrochloric can be used to generate chlorine dioxide for this application.)
In controlling microbiological growth in white water paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, maintain a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.



#### Right Side Panel Continued (Second Panel)

Mollusk Control in Water Systems: (Acids other than hydrochloric can be used to generate chlorine dioxide for this application.)

For mollusk control in commercial and industrial recirculating and one-pass cooling water systems. The required dosages will vary with the system type, system conditions, the degree of water contamination present and the desired level of control. Depending on the extent of the infestation, sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to achieve the necessary chlorine dioxide residual concentration.

Veliger Control: Maintain a continuous chlorine dioxide residual of 0.1 - 0.5 ppm.

Intermittent Dose: Apply chlorine dioxide to obtain a chlorine dioxide residual concentration of 0.2 - 25 ppm. Repeat as necessary to maintain control.

Continuous Dose: Maintain a chlorine dioxide residual concentration of up to 2 ppm.

Wastewater Treatment: (Acids other than hydrochloric can be used to generate chlorine dioxide for this application.)
For treatment of sewage and wastewater, add chlorine dioxide to achieve a residual of up to 5.ppm. As an oxidant in wastewater treatment, the required dosages will vary with water conditions and the degree of contamination present. For sulfide odor control, between pH 5-9, a minimum of 5.2 ppm (wt) of chlorine dioxide should be applied to oxidize 1 ppm of sulfide (measured as sulfide ion). For phenol destruction, at pH less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol; at pH greater than 10, 3.3 ppm chlorine dioxide will oxidize 1 ppm phenol.

NOTE: Seller warrants that this product complies with the specifications expressed in this label. Seller makes no other warranties, and disclaims all other warranties, express or implied, including by not limited to warranties of merchantability and fitness for the intended purpose. Seller's liability for default, breach, failure under this label shall be limited to the amount of the purchase price. Seller shall have no liability for consequential damages. Buyer assumes all risk of use and/or handling, when such use and/or handling is contrary to label instructions.



