

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FEB 2 2000

Mr. Eliot I. Harrison, Agent  
Sterling Pulp Chemicals, Limited  
2 gibbs Road  
Toronto, Ontario, Canada M9B1R1

Dear Mr. Harrison:

Subject: Ercopure 25  
EPA Registration No. 53345-14  
Your Amemdment Dated September 13, 1999

This is in response to your amendment of revised label and efficacy data (MRID No. 446999-01) for the subject product.

The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable with the following comment.

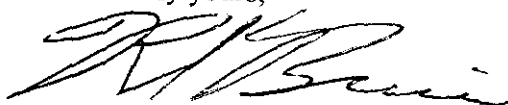
On page 3, under directions for "Sanitization of Food-Contact surfaces in Food-Processing Plants, Dairies, Bottling Plants and Breweries", revise last sentence to read "allow the sanitizing solution to thoroughly drain and dry from all equipment and surfaces cleared for use on food contact surfaces under the Federal, Food, Drug and Cosmetic act prior to recontact of the sanitized surface with food or feed items."

A stamped copy is enclosed for your record.

The submitted efficacy data (MRID No. 446999-01) demonstrates its effectiveness against Salmonella typhi (ATCC-6359) and is acceptable.

If you have any questions, please call Marianne Clark at (703) 308-6381.

Sincerely yours,



Robert S. Brennis  
Product Manager (32)  
Regulatory Management Branch II  
Antimicrobial Division (7510C)

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

**DANGER.** Corrosive. Causes eye and skin damage. Do not get in eyes, on skin or clothing. Wear goggles or face shield, and use only Neoprene gloves when handling. May be fatal if swallowed. Irritating to nose and throat. Do not breath dust, vapors or spray mist. Remove and wash contaminated clothing immediately.

**Environmental Hazards**

This product is toxic to fish. 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**

Strong oxidizing agent. Mix or dilute with water only. Mixing with acids, or alcohol, or other chemicals may cause evolution of chlorine and chlorine dioxide gas mixture which is toxic and may be explosive. Combustible materials contaminated with ERCOPURE 25 may burn rapidly. Keep handling areas and equipment clean and free of oils, greases, combustibles and dust. Do not contaminate product with garbage, dirt, organic matter, paint products, solvents, acids, vinegar, beverages, oils, pine oils, dirty rags, or other foreign matter. Do not expose to hot surfaces, sparks or open flame.

**ERCOPURE 25**

Sodium Chlorite Solution

For Use in Generating Chlorine Dioxide to Control Microorganisms in Potable Water, Wastewater, Food Processing Plant Water, Once-Through Cooling Systems, General Industrial Process Water and Food-Contact Surfaces

**Active Ingredient**

Sodium Chlorite .....	25.0%
Inert Ingredients .....	75.0%
	100.0%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

See Side Panels for Additional Precautionary Statements

**Statement of Practical Treatment**

**If in Eyes:** Flush with plenty of water for 15 minutes. Get medical attention immediately.

**If on Skin:** Shake off excess chemical. Flush with plenty of water for 15 minutes while removing clothing. If irritation develops, get medical attention. Wash contaminated clothing immediately.

**If Swallowed:** Promptly drink large quantities of water. Do not induce vomiting. Avoid alcohol. Call a physician immediately.

EPA Reg. No. 53345-14  
EPA Est. No. 53345-CN-01

Net Contents: 55 U.S. gals (210 liters)

Sterling Pulp Chemicals, Ltd.  
Toronto, Ontario  
CANADA

**STORAGE AND DISPOSAL**

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

**STORAGE:** Avoid exposure to high temperatures during storage. Store remote from other chemicals and combustible materials. Do not skid or slide drums.

**PESTICIDE DISPOSAL:**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label directions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**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 of by state and local authorities.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

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Accepted for Registration as  
Pesticide under EPA Reg. No. 53345-14

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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.

### METHOD OF APPLICATION

Chlorine dioxide generation must take place only under controlled conditions in a chlorine dioxide generator. These generators react ERCOPURE 25 with either chlorine or a chlorine solution and hydrochloric acid producing an aqueous solution of chlorine dioxide. This solution is then added at a point in the system to be treated which ensures uniform mixing. Alternatively, a weak acid generation of chlorine dioxide can be used. This method involves contacting sodium chlorite in an aqueous solution with citric acid. Do not apply ERCOPURE 25 directly to the system being treated. Follow all instructions in the chlorine dioxide generator manual carefully.

### APPLICATIONS

**POTABLE WATER AND WASTEWATER DISINFECTION:** For most municipal and other potable water systems, a chlorine dioxide residual concentration up to 2.0 ppm is sufficient to provide adequate disinfection. The concentration of total residual oxidants (chlorine dioxide, chlorite and chlorate) should be monitored such that it does not exceed 1.0 ppm in the distribution system. For wastewater and sewage applications, residual chlorine dioxide concentrations up to 5.0 ppm are generally adequate.

### FOOD PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS AND BREWERIES

**FOOD PLANT PROCESS WATER:** For microbial control in typical food processing water systems, such as flume transport, chill water systems, hydrocoolers and retort cooling water, apply ERCOPURE 25 through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 5.0 ppm.

Chlorine dioxide generated from ERCOPURE 25 may also be used as a water sanitizer for fruit and vegetable washing and cut and peeled potatoes products without a subsequent potable water rinse requirement, provided that the concentration of total residual oxidants meet the residual limitations of  $\leq 1.0$  ppm.

Residual concentrations up to 5.0 ppm chlorine dioxide in process water may be used for washing whole uncut and unpeeled fruits and vegetables although a final potable water rinse is required if the residual exceeds 1 ppm.

Potatoes, including those which have been peeled or cut, 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.

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Office of Federal Insecticide,  
Fungicide, and Rodenticide  
Registration, Pesticide  
Division, EPA Reg. No. 53345-14

**POULTRY PROCESSING WATER:** Use ERCOPURE 25 to generate chlorine dioxide for use as an antimicrobial agent in water used in poultry processing in an amount not to exceed 3 ppm residual chlorine dioxide as determined by an appropriate method.

**SANITIZATION OF FOOD-CONTACT SURFACES IN FOOD-PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS AND BREWERIES** Use ERCOPURE 25 to generate chlorine dioxide for use as a terminal no-rinse sanitizer for food-contact surfaces, food-processing equipment and utensils. Prior to application, remove gross food particles and soil by a pre-flush, or pre-scrape, and, when necessary, pre-soak treatment. Then thoroughly wash all equipment, surfaces and utensils with a suitable detergent or cleaner, followed by a potable water rinse. Dilute the chlorine dioxide solution generated from the chlorine dioxide generator with potable water to achieve a use-solution of at least 100 ppm but not more than 200 ppm available chlorine dioxide. A contact time of at least one minute is required for sanitization. Allow the sanitizing solution to thoroughly drain and dry from all equipment and surfaces prior to recontact of the sanitized surface with food or feed items.

**GENERAL INDUSTRIAL PROCESS WATER TREATMENT (OILFIELD INJECTION WATER, WHITE WATER PAPER MILL SYSTEMS, AND RECIRCULATING COOLING TOWERS):** Use ERCOPURE 25 to generate chlorine dioxide for the control of microbial slime in the above water systems. In order to achieve adequate control, the chlorine dioxide residual concentration should be between 0.25 and 5.0 ppm.

**ONCE-THROUGH COOLING WATER SYSTEMS:** Control of mollusks can be effectively accomplished using ERCOPURE 25 as directed in commercial and industrial once-through cooling water systems. ERCOPURE 25 may be fed on a continuous or slug basis depending on the degree of system fouling.

**SLUG DOSE:** Add 42 to 210 lbs. of chlorine dioxide per million gallons of water (5 to 25 ppm)

**CONTINUOUS DOSE:** Add 2 to 16 lbs. of chlorine dioxide per million gallons of water (0.25 to 2 ppm)

RECEIVED  
with COMMENTS  
in EPA Letter Dated.

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Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
this product is classified as a Pesticide  
Registered under EPA Reg. 4

53345-14