

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER**

**KEEP OUT OF REACH OF CHILDREN**

Corrosive. Causes irreversible eye damage. Causes skin burns. Harmful if inhaled. May be fatal if swallowed. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in hyper-reactive individuals. Do not get in eyes, on skin, on clothing. Avoid breathing vapor. Do not swallow. Wear goggles, protective clothing, and butyl or nitrile gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS**

This pesticide 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.

**STORAGE AND HANDLING**

PIROR 850 Slimecide and Water Treatment Microbiocide solutions are incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. These solutions can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about -6°F (-21°C). Therefore, unless the storage tank is inside or underground, heating and insulation may be required. If heating is needed, exposure to high temperatures should be avoided. For short storage times (up to about 1 month), temperatures of up to 100°F (37.8°C) can be tolerated but the preferred maximum storage temperature is about 80°F (28.7°C).

A stainless steel centrifugal pump is suggested for transfer service. Spiral wound stainless steel with TEFLON® is suitable for gaskets and packing.

**LIMITED WARRANTY AND DISCLAIMER**

Seller warrants that the product conforms to its chemical description as contained on this label and is reasonably fit for the purposes stated on this label when used in accordance with directions under normal conditions of use. THE WARRANTIES MADE IN THIS PARAGRAPH ARE SELLER'S SOLE WARRANTIES WITH RESPECT TO THE PRODUCT AND ARE MADE EXPRESSLY IN LIEU OF AND EXCLUDE ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER EXPRESS OR IMPLIED REPRESENTATIONS AND WARRANTIES.

**BEFORE HANDLING OR USING, READ AND UNDERSTAND CURRENT MATERIAL SAFETY DATA SHEET FOR THIS PRODUCT.**

**STORAGE AND DISPOSAL**

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide wastes are toxic. 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 instructions, contact your State Pesticide or your Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.  
**CONTAINER DISPOSAL: Metal Containers or Plastic Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures approved by state and local authorities.  
**Plastic Containers:** May be incinerated, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.  
**Metal Containers:** Must not be incinerated. Do not cut or weld on or near metal containers.

**NOTICE**

Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

**ACCEPTED**

OCT 12 2001

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 464-704

This label is FOR INFORMATIONAL PURPOSES ONLY and shall not be distributed to anyone unless duly authorized by Regulatory Affairs.

**PIROR™**

**850**

**SLIMICIDE and WATER TREATMENT MICROBICIDE**

A HIGHLY EFFECTIVE MICROBICIDE FOR USE IN CONTROLLING BACTERIA INCLUDING SLIME FORMING BACTERIA, SULFATE-REDUCING BACTERIA, FUNGI, YEAST AND ALGAE IN BEET SUGAR MILLS AND BEET SUGAR MILL PROCESS WATER SYSTEMS, PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS, PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD, WATER BASED COATINGS FOR PAPER AND PAPERBOARD, AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, RECIRCULATING COOLING AND PROCESS WATER SYSTEMS INCLUDING THOSE THAT CONTAIN REVERSE OSMOSIS MEMBRANES AND SERVICE WATER AND AUXILIARY SYSTEMS INCLUDING FIRE WATER SYSTEMS AND SPRAY PAINT BOOTHS, HEAT TRANSFER SYSTEMS, WASTEWATER SYSTEMS INCLUDING WASTEWATER SLUDGE AND HOLDING TANKS AND FUNCTIONAL FLUIDS AND LUBRICANTS, AND AQUEOUS METAL WORKING FLUIDS AND FOR USE BY MANUFACTURERS AS A PRESERVATIVE IN INDUSTRIAL, INSTITUTIONAL, AND CONSUMER PROCESSES AND PRODUCTS AND FOR USE IN PRESERVING AQUEOUS-BASED SOLUTIONS, SLURRIES, AND EMULSIONS.

Active Ingredient: Glutaraldehyde ..... 50.0%  
Inert Ingredients: ..... 50.0%  
100.0%

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

**FIRST AID**

**If swallowed:**

- Call a poison control center or a doctor immediately for treatment advice.
- DO NOT INDUCE VOMITING.
- Do not give anything to drink.

**If in eyes:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- After at least 15 minutes of rinsing or after it is judged that nearly all of the contamination has been removed, contact an Ophthalmologist before attempting to remove the contact lens(es).
- Call a poison control center or a doctor immediately for treatment advice.

**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 a doctor for treatment advice.

**If inhaled:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or a doctor for further treatment advice.

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

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

**SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**



THE DOW CHEMICAL COMPANY  
Midland, Michigan 48674 U.S.A.  
1-800-258-CHEM

\*Trademark of THE DOW CHEMICAL COMPANY

EPA Reg. No. 464-  
EPA Est. No. 10352-WV-2  
L 72117 (F0701)  
Made In USA  
PE0701

Net Contents: 5 or 55 gallons

CONTAINER SIZE 5 GALLONS	CONTAINER SIZE 55 GALLONS	SHIPPING NAME	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS GLUTARALDEHYDE)	
46 POUNDS NET WEIGHT	500 POUNDS NET WEIGHT	HAZARD CLASS 8	ID NUMBER UN 3265	PG II

**IN CASE OF AN EMERGENCY** endangering life or property involving this product, call collect 989-636-4400.

464-704

10-12-2001

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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.

### BEET SUGAR MILLS AND BEET SUGAR MILL PROCESS WATER SYSTEMS

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be added to the system at a point of uniform mixing such as the diffuser, transport water pump, weir box, or diffuser feed water pump. Additions may be made intermittently (SLUG DOSE) or continuously.

#### INTERMITTENT (SLUG DOSE) METHOD

**Initial Dose:** When the system is noticeably contaminated, add 5.5 to 13.6 fluid ounces (200 to 500 ppm product) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per ton or 200 to 500 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per metric ton of sliced beets as a slug dose. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 0.8 to 8.2 fluid ounces (30 to 300 ppm) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per ton or 30 to 300 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per metric ton of sliced beets in the system as a slug dose as necessary to maintain control. The total should not exceed 106 gallons per 1000 tons of beets sliced per day.

#### CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably contaminated, add 5.5 to 13.6 fluid ounces/minute (200 to 500 ppm product) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per ton or 200 to 500 mL/minute of PIROR™ 850 Slicicide and Water Treatment Microbiocide per metric ton of beets sliced per minute in the system via automatic pump of suitable construction.

**Subsequent Dose:** When microbial control is evident, add 0.8 to 8.2 fluid ounces/minute (30 to 300 ppm) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per ton or 30 to 300 mL/minute of PIROR™ 850 Slicicide and Water Treatment Microbiocide per metric ton of beets sliced per minute in the system, or as necessary to maintain control. The total should not exceed 106 gallons per 1000 tons of beets sliced per day.

### PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be added to the paper making system at a point of uniform mixing such as the beaters, broke chest pump, save air tank, or white-water tank.

**Initial Dose:** When the system is noticeably contaminated, add 0.5 to 3.0 lbs of PIROR™ 850 Slicicide and Water Treatment Microbiocide per ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily fouled systems should be boiled out prior to initial treatment.

**Subsequent Dose:** When microbial control is evident, add 0.3 to 2.0 lbs of PIROR™ 850 Slicicide and Water Treatment Microbiocide per ton of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

### PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD

Use from 0.1 to 0.6 lbs. of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 lbs. dry powder to produce a concentration of 100 to 600 ppm as product (based on slurry solids) in the mixed slurry.

### WATER BASED COATINGS FOR PAPER AND PAPERBOARD

**NOTE:** For use in non-food contact coatings only.

Use from 0.1 to 0.6 lbs. of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 lbs. dry powder to produce a concentration of 100 to 600 ppm as product (based on slurry solids) in the mixed slurry.

### AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS/ RECIRCULATING COOLING AND PROCESS WATER SYSTEMS

This product may be used only in industrial air washers and air washer systems which have mist-eliminating components.

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be added at the application rates described below, to a water treatment system at a convenient point of uniform mixing such as the basin area. Addition may be made intermittently (SLUG DOSE) or continuously. Badly fouled systems can be shock treated with PIROR™ 850 Slicicide and Water Treatment Microbiocide. Under these conditions, blowdown should be discontinued for up to 24 hours.

PIROR™ 850 Slicicide and Water Treatment Microbiocide can be used in industrial process water systems that contain ultra filtration units and non-medical reverse osmosis membranes (where approved for compatibility by the membrane manufacturer) and associated distribution systems.

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### INTERMITTENT (SLUG DOSE) METHOD

**Initial Dose:** When the system is noticeably fouled apply 11.5 to 23.0 fluid ounces (100 to 200 ppm product) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 gallons of water in the system or 100 to 200 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 liters of water in the system. Repeat until control achieved.

**Subsequent Dose:** When microbial control is evident, add 4.6 to 11.5 fluid ounces (40 to 100 ppm) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 gallons of water in the system weekly or 40 to 100 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 liters of water in the system weekly, or as needed to maintain control.

Badly fouled systems must be cleaned before treatment is begun.

### CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled apply 11.5 to 23.0 fluid ounces (100 to 200 ppm product) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 gallons of water in the system or 100 to 200 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 liters of water in the system.

**Subsequent Dose:** Maintain this treatment level by starting a continuous feed of 2.3 to 11.5 fluid ounces (20 to 100 ppm) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 gallons of water in the system per day or 20 to 100 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 liters of water in the system per day.

Badly fouled systems must be cleaned before treatment is begun.

### SPRAY WATER AND AUXILIARY SYSTEMS

(Fire water systems and Spray paint booths)

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point that will allow for uniform mixing throughout the system.

### HEAT TRANSFER SYSTEMS

(Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts and Pasteurizers and Warmers and Once-Through Cooling Water Systems)

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting area from which the treated water will be circulated uniformly throughout the system.

### INDUSTRIAL WASTEWATER SYSTEMS

(Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks)

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 0.5 to 2.3 gallons (450 to 2,250 ppm) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 gallons of wastewater or sludge or 450 mL to 2,250 mL of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 1,000 liters of wastewater or sludge.

### AQUEOUS METALWORKING FLUIDS

PIROR™ 850 Slicicide and Water Treatment Microbiocide should be added to a metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Additions may be made intermittently (SLUG DOSE) at intervals of one week or less.

**Initial Dose:** When the system is noticeably fouled apply 1.8 to 5.4 gallons of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 10,000 gallons of metalworking fluid to the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 0.7 to 3.6 gallons of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 10,000 gallons of metalworking fluid to the system weekly, or as needed to maintain control. Badly fouled systems should be cleaned before treatment is begun.

### WATER BASED CONVEYOR LUBRICANTS

(Brewery, Juice, Dairy, Beverage, and Food Processing Systems)

**Avoid contamination of food in application of product**

Thoroughly clean all tracks and conveyors to remove gross soil. Rinse well. Use an automatic food system as recommended by our Dow representative to provide 1.3 to 7.7 fluid ounces (50 to 300 ppm active) of PIROR™ 850 Slicicide and Water Treatment Microbiocide per 100 gallons of diluted lubricant.

### GENERAL PRESERVATIVE USE

PIROR™ 850 Slicicide and Water Treatment Microbiocide is recommended for use in aqueous or water containing products and systems, including industrial, institutional and consumer in-can processes and products, to control the growth of bacteria and fungi. For effective preservation, add PIROR™ 850 Slicicide and Water Treatment Microbiocide to the product formulation at a rate of 0.02% to 0.20% (200 to 2,000 ppm) based on the water content of the product (0.2 to 2.0 lbs PIROR™ 850 Slicicide and Water Treatment Microbiocide / 1,000 lbs water content). Mix uniformly.

### PRESERVATIVE FOR CONCENTRATES

For use in concentrates where effective preservation is needed after dilution, add PIROR™ 850 Slicicide and Water Treatment Microbiocide to the product formulation at a rate such that the diluted end-use product will contain 0.02% to 0.20% PIROR™ 850 Slicicide and Water Treatment Microbiocide.

**At no time during the preservation process should the level of PIROR™ 850 Slicicide and Water Treatment Microbiocide exceed 2.0%.**

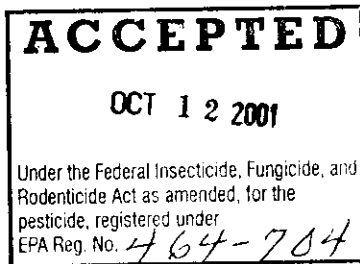
### REVERSE OSMOSIS MEMBRANE

For effective preservation of reverse osmosis elements (where approved for compatibility by membrane manufacturer), immerse elements in a tank containing 0.2% to 2.0% PIROR™ 850 Slicicide and Water Treatment Microbiocide.

PIROR™ 850 Slicicide and Water Treatment Microbiocide can also be added to in-line recirculating systems for preservation of installed out-of-service reverse osmosis equipment (where approved for compatibility by membrane manufacturer). Add 0.2% to 2.0% PIROR™ 850 Slicicide and Water Treatment Microbiocide to the tank in the circulating system. Maintain PIROR™ 850 Slicicide and Water Treatment Microbiocide concentration by periodic addition to counteract any system leakage.

### CONCRETE ADMIXTURES

For effective preservation of concrete admixtures, add PIROR™ 850 Slicicide and Water Treatment Microbiocide to the product formulation at a rate of 2,000 to 8,000 ppm based on the weight of the admixture (2.0 to 8.0 lbs PIROR™ 850 Slicicide and Water Treatment Microbiocide / 1,000 lbs. concrete admixture). Mix uniformly.



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