

464-704

6/8/2004

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUN 8 2004

The Dow Chemical Company
1500 E. Lake Cook Road
Buffalo Grove, IL 60089

Attention: Maureen Miksztal
Senior Regulatory Specialist

Subject: UCARCIDE 50 Antimicrobial
EPA Registration No. 464-704
Amendment Dated March 12, 2004

The amendment, submitted in connection with registration under the FIFRA sec. 3(c)(7)(A), to modify the first aid for the eye, to add oilfield and macrofouling claims, to add ventilation information to storage and handling section, to update the identifying statement, to add new MSDS statement and text revision in the directions for use to correct the dosing for density of glutaraldehyde, to change the primary product name to "UCARCIDE 50 Antimicrobial", to include three (3) additional brand names "UCARCIDE 150 Antimicrobial", PIROR 850 Slimicide and Water Treatment Microbiocide" and AQUICAR 550 Water Treatment Microbiocide" and to amend the Basic Confidential Statement of Formula (CSF), is acceptable, provided that you:

1. Submit and/or cite all data required for registration/re-registration of your product under FIFRA sec. 3(c)(5) and sec. 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit two (2) copies of final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

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General Comments

The Basic Confidential Statement of Formula dated March 12, 2004 is acceptable.

The three (3) requested alternate brand names "UCARCIDE 150 Antimicrobial", PIROR 850 Slimicide and Water Treatment Microbiocide" and AQUCAR 550 Water Treatment Microbiocide" are acceptable.

Your request to change the primary product name of your registration from "PIROR 850 Slimicide AQUCAR 515 Water Treatment Microbiocide" to "UCARCIDE 50 Antimicrobial" is acceptable.

A stamped copy of the accepted labeling is enclosed for your records.

If you have any questions concerning this letter, please contact Martha Terry at (703) 308-6217.

Sincerely



Marshall Swindell
Product Manager (33)
Regulatory Management Branch 1
Antimicrobials Division (7510C)

Enclosure

UCARCIDE™ 50

Antimicrobial

DIRTIONS FOR USE

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

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. UCARCIDE™ 50 Antimicrobial 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 UCARCIDE™ 50 Antimicrobial. Under these conditions, shutdown should be discontinued for up to 24 hours. UCARCIDE™ 50 Antimicrobial 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.

INTERMITTENT (SLUG DOSE) METHOD

Initial Dose: When the system is noticeably fouled apply 11.3 to 22.7 fluid ounces (100 to 200 ppm product) of UCARCIDE™ 50 Antimicrobial per 1,000 gallons of water in the system or 89 to 177 mL of UCARCIDE™ 50 Antimicrobial per 1,000 liters of water in the system. Repeat until control is achieved. **Subsequent Dose:** When microbial control is evident, add 4.5 to 11.3 fluid ounces (40 to 100 ppm) of UCARCIDE™ 50 Antimicrobial per 1,000 gallons of water in the system weekly or 35 to 89 mL of UCARCIDE™ 50 Antimicrobial 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 11.3 to 22.7 fluid ounces (100 to 200 ppm product) of UCARCIDE™ 50 Antimicrobial per 1,000 gallons of water in the system or 89 to 177 mL of UCARCIDE™ 50 Antimicrobial per 1,000 liters of water in the system. **Subsequent Dose:** Maintain this treatment level by starting a continuous feed of 2.3 to 11.3 fluid ounces (20 to 100 ppm product) of UCARCIDE™ 50 Antimicrobial per 1,000 gallons of water in the system per day or 17.7 to 89.6 mL of UCARCIDE™ 50 Antimicrobial per 1,000 liters of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

SERVICE WATER AND AUXILIARY SYSTEMS

UCARCIDE™ 50 Antimicrobial 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 Sweetener Systems, Hydrostatic Sterilizers and Retorts and Pasteurizers and Warmers and Once-Through Cooling Water Systems)

UCARCIDE™ 50 Antimicrobial 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) UCARCIDE™ 50 Antimicrobial should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 0.4 to 2.0 gallons (450 to 2,250 ppm product) of UCARCIDE™ 50 Antimicrobial per 1,000 gallons of wastewater or sludge or 399 mL to 1,994 mL of UCARCIDE™ 50 Antimicrobial per 1,000 liters of wastewater or sludge.

MACROFOULING CONTROL

*Not for use in the state of California

UCARCIDE™ 50 Antimicrobial should be added continuously to maintain a level of 20 ppm active ingredient in the system for a period of at least 96 hours. **Initial Dose:** When macrofouling is present in the system, apply 4.53 fluid ounces of UCARCIDE™ 50 Antimicrobial 1,000 gallons of water in the system. Continue to add as needed to maintain the 20 ppm active ingredient level for a period of at least 96 hours.

BEEF SUGAR MILLS AND BEEF SUGAR MILL PROCESS WATER SYSTEMS

UCARCIDE™ 50 Antimicrobial should be added to the system at a point of uniform mixing such as the diffuser, transport water pump, wear 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 5.4 to 13.6 fluid ounces (200 to 500 ppm product) of UCARCIDE™ 50 Antimicrobial per ton or 177 to 442 mL of UCARCIDE™ 50 Antimicrobial 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 (30 to 300 ppm) of UCARCIDE™ 50 Antimicrobial per ton or 27 to 270 mL/minute of UCARCIDE™ 50 Antimicrobial per metric ton of beets sliced 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 5.4 to 13.6 fluid ounces/minute (200 to 500 ppm product) of UCARCIDE™ 50 Antimicrobial per ton or 177 to 442 mL/minute of UCARCIDE™ 50 Antimicrobial 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 UCARCIDE™ 50 Antimicrobial per ton or 27 to 270 mL/minute of UCARCIDE™ 50 Antimicrobial 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

UCARCIDE™ 50 Antimicrobial should be added to the paper making system at a point of uniform mixing such as the beaters, broke chest pump, sewer tank, or white-water tank. **Initial Dose:** When the system is noticeably contaminated, add 0.5 to 3.0 lbs of UCARCIDE™ 50 Antimicrobial 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 UCARCIDE™ 50 Antimicrobial 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

(For use in food and non-food contact pigments and filler slurries) Use from 0.1 to 0.6 lbs. of UCARCIDE™ 50 Antimicrobial 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 UCARCIDE™ 50 Antimicrobial 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.

AQUEOUS METALW

UCARCIDE™ 50 Antimicrobial may be used in a manner inconsistent with its labeling. (SLUG DOSE) at intervals of Initial Dose: When the system is noticeably contaminated, add 5.4 to 13.6 fluid ounces (200 to 500 ppm product) of UCARCIDE™ 50 Antimicrobial per ton or 177 to 442 mL of UCARCIDE™ 50 Antimicrobial 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 (30 to 300 ppm) of UCARCIDE™ 50 Antimicrobial per ton or 27 to 270 mL/minute of UCARCIDE™ 50 Antimicrobial per metric ton of beets sliced 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.

WATER BASED COI

(Brewery, Juice, Dairy Beverage, etc.) Avoid contamination of f.

Thoroughly clean all tanks &

malic feed to system as recom mended (50 to 300 ppm active lubricant)

GENERAL PRI

UCARCIDE™ 50 Antimicrobial products and systems, including products to control grease. UCARCIDE™ 50 Antimicrobial to 2,000 ppm product) based UCARCIDE™ 50 Antimicrobi

PRESERVATIVE FOR

For use in food and non-food contact coatings only. Use from 0.1 to 0.6 lbs. of UCARCIDE™ 50 Antimicrobial 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.

REVERSE OSMOSIS

For effective preservation of by membrane manufacturer), UCARCIDE™ 50 Antimicrobial UCARCIDE™ 50 Antimicrobial preservation of installed out-

CONCRETE ADMIXTU

For effective preservation of the product formulation at a rate of 2.0 to 8.0 lbs UCARCIDE™ 50 Antimicrobial uniformly.

WATER FLOODS

UCARCIDE™ 50 Antimicrobial mix mixing. Initial Treatment: When the UCARCIDE™ 50 Antimicrobial Antimicrobial per 1,000 gallons

Subsequent Dose: When mac

50 Antimicrobial (0.02 to 4.4 g water) to the system weekly, or

DRILLING, COMPLETE

UCARCIDE™ 50 Antimicrobial form mixing such as the circula

Initial Treatment: Add 50 to 1

UCARCIDE™ 50 Antimicrobial ing on the severity of contamin

Maintenance Dose: Maintain

Antimicrobial by adding 0.2 to 2.0 of additional fluid, or as needed

PACKER FLUIDS

UCARCIDE™ 50 Antimicrobial mixing such as a circulating hot

Antimicrobial (0.2 to 2.2 gallo

a freshly prepared fluid (disper packer fluid in the well between

GAS PRODUCTION AND

UCARCIDE™ 50 Antimicrobial line via direct injection. The ap

lication of the UCARCIDE™ 50

To facilitate application, it may with an appropriate solvent mixer injectors to the system should

GAS STORAGE WELL

Individual injection wells should Antimicrobial to produce a conc

Antimicrobial when diluted by

place before gas is injected (k as needed to maintain control.

Individual drips should be treat

Antimicrobial to produce a conc Antimicrobial when diluted by 1

Hydrotesting

Water used to hydrotest pipeline UCARCIDE™ 50 Antimicrobial 1,000 gallons water), depending man

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, or 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

UCARCIDE™ 50 Antimicrobial is incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. UCARCIDE™ 50 Antimicrobial 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 50°C (26.7°C).

A stainless steel centrifugal pump is suggested for transfer service. Spiral-wound stainless steel with TFE-ON® Polymer is suitable for gaskets and packing.

Handle in a well-ventilated area. If vapors are irritating to the nose or eyes, special ventilation or respiratory protection (MSHA/NIOSH approved air purifying respirator equipped with an organic vapor cartridge) may be required.

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 THIS PRODUCT, SEE YOUR EMPLOYER AND READ CURRENT MATERIAL SAFETY DATA SHEET.

STORAGE AND DISPOSAL

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Open burning is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or waste 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.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

JUN 08 2004

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

464-764

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:

- Wash immediately and continuously with flowing water for at least 30 minutes.
- Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.
- 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.

EPA Reg. No. 464-704
EPA Est. No. 10352-WV-2 (A) 464-WV-1 (B)
EPA gallon pails in pallets; all drums: bulk
EPA Single 5 gallon pails only.

THE DOW CHEMICAL COMPANY

Midland, Michigan 48674 U.S.A.

1-800-258-CHEM

*Trademark of THE DOW CHEMICAL COMPANY

L72117 (G 03/04)

Made in USA

PE0304

Net Contents: 5.55 gallons or Bulk

| CONTAINER SIZE |
|----------------|----------------|----------------|----------------|----------------|----------------|
| TOTE | 5 GALLONS | 55 GALLONS | DRUM | DRUM | DRUM |
| NET WEIGHT |
| 2446 POUNDS | 46 POUNDS | 500 POUNDS | 55 POUNDS | 55 POUNDS | 55 POUNDS |
| | | | | | |

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



NOTICE

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