

464-704

7/28/2014

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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Rhonda Vance-Moeser,  
Product Stewardship Regulatory Manager  
The Dow Chemical Company  
1650 Joseph DR, 100 Larkin Center  
Midland, MI 48674

JUL 28 2014

SUBJECT: Ucarcide 50 Antimicrobial  
EPA Registration Number: 464-704  
Application Dated: April 14, 2014  
Receipt Date: April 15, 2014

Dear Ms. Custer:

This letter acknowledges receipt of the amendment identified above submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended.

- Label revision: Reword oil and gas language to be more specific for users.
- Separate Air Washers and Industrial Scrubbing Systems/Recirculating Cooling and Process Water system into two distinct directions for use.
- Remove directions for use for heat transfer system.
- Replace the word "should" with "must" throughout directions.
- Change the "if swallowed" first aid statement to the EPA default statement.

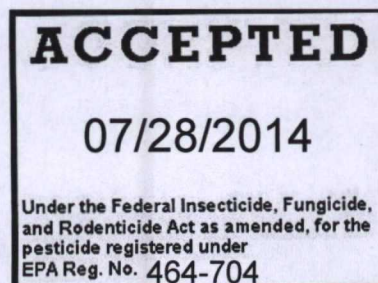
Based on a review of new proposed Label all changes are acceptable. This New Label will be made part of the record for this file. All other Labels are obsolete. Please submit one copy of your final printed labeling before you release the product for shipment. Should you have any questions concerning this letter, please contact John Cowden at (703) 347-0259.

Sincerely,

A handwritten signature in black ink that reads "Eric Miederhoff".

Eric Miederhoff  
Acting PM33  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

UCARCIDE™ 50 Antimicrobial  
Final Label  
11 April 2014



## UCARCIDE™ 50 Antimicrobial

### Active Ingredient:

Glutaraldehyde .....	50%
Inert Ingredients: .....	50%
TOTAL.....	100%

E.P.A. Registration No. 464-704  
E.P.A. Est. No. XXXX-XX-X

### **KEEP OUT OF REACH OF CHILDREN DANGER**

#### **Precautionary Statements**

##### **Hazards To Humans and Domestic Animals**

### **DANGER**

**CORROSIVE • Causes Irreversible Eye Damage • Causes Skin Burns •  
May Be Fatal If Swallowed • Harmful If Inhaled • Harmful If Absorbed Through Skin  
• Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Skin Reaction In Some  
Individuals • Causes Asthmatic Signs And Symptoms In Hyper-Reactive Individuals • Do Not Get  
In Eyes, On Skin, On Clothing • Do Not Swallow • Avoid Breathing Vapor • Wear Goggles,  
Protective Clothing, And Butyl Or Nitrile Gloves • Wash Thoroughly With Soap And Water After  
Handling • Remove Contaminated Clothing And Wash Before Reuse.**

#### **Personal Protective Equipment**

Applicators and other handlers must wear:

- Coveralls, over long -sleeved shirt and long pants
- socks and chemical resistant footwear
- goggles or face shields
- Chemical-resistant gloves (such as butyl rubber, Nitrile/butadiene rubber )

#### **User Safety Requirements**

Follow manufacturers' instructions for cleaning & maintaining PPE if no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Users must wash hands before eating, drinking, chewing gum, or using the toilet. Users must remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users must remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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<b>FIRST AID</b>	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to by a poison control center or doctor.</li><li>• Do not give anything to an unconscious person.</li><li>• Call a poison control center or doctor immediately for treatment advice.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 30 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, using pocket mask or face protection if via mouth-to-mouth</li><li>• Call a poison control center or a doctor for further treatment advice.</li></ul>
Have product container or label with you when calling a poison control center or doctor or going for treatment.	
<b>HOT LINE NUMBER</b>	
<b>IN CASE OF AN EMERGENCY</b> endangering life or property involving this product, call collect <b>(989) 636-4400</b> .	
<b>NOTE TO PHYSICIAN</b>	
Inhalation, ingestion or aspiration may cause lung or G-I tract damage. Probable mucosal damage may contraindicate the use of gastric lavage. Chemical eye burns may require extended irrigation. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.	

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### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish, aquatic invertebrates, oysters and shrimp. 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 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 local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

### **STORAGE AND HANDLING**

**Storage:** To maintain product quality, store at temperatures below 80 °F (26.7 °C) Keep container tightly closed when not in use.

**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 16 °F (-9°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.

A stainless steel centrifugal pump is suggested for transfer service. Spiral-wound stainless steel with TEFLON® 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.

The product in its undiluted form must not be used in a spray, or aerosol application.

### **STORAGE AND DISPOSAL**

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

**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 instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

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**CONTAINER DISPOSAL**

*Option - labels for no refillable rigid containers of all sizes*

**Nonrefillable Container:** Do not reuse or refill this container. Triple or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

*Option - labels on refillable rigid containers of all sizes*

**Refillable Container:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning of the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty contents into application equipment and triple rinse. Pour or pump rinsate into application equipment or rinsate collection system. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

**DIRECTIONS FOR USE**

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

**INDUSTRIAL OR COMMERCIAL COOLING WATER SYSTEMS**

*Not registered for this use in the State of California- Optional Statement*

Not intended for use in once-through cooling systems.

For control of microbial growth in industrial or commercial cooling water systems use either continuous or slug dosing.

**CONTINUOUS FEED**

Add product to metering device for continuous feed. Add 20 to 200 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment. Do not exceed more than 200 ppm product in system water per day.

**SLUG DOSING**

Add product to basin of cooling system or at any other point of uniform mixing.

Add 40 to 200 ppm product to the water in the system depending upon severity of contamination. Repeat as needed to maintain control. Badly fouled systems must be cleaned before treatment.

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**SERVICE WATER AND AUXILIARY SYSTEMS**

For control of microbial growth in service and auxiliary water systems use either continuous or slug dosing.

**CONTINUOUS FEED**

Add product to metering device for continuous feed. Add 20 to 200 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment. Do not exceed more than 200 ppm product in system water per day.

**SLUG DOSING**

Add product to basin of cooling system or at any other point of uniform mixing. Add 40 to 200 ppm product to the water in the system depending upon severity of contamination. Repeat as needed to maintain control. Badly fouled systems must be cleaned before treatment.

**AIR-WASHER SYSTEMS**

*Not registered for this use in the State of California – Optional Statement*

NOTE: For use only in industrial air-washer systems that maintain effective mist eliminating components. For control of microbial growth in air washer systems use either continuous or slug dosing.

**CONTINUOUS FEED**

Add product using metering device for continuous feed. Add 20 to 200 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment. Do not exceed more than 200 ppm product in system water per day.

**SLUG DOSING**

Add product to basin of cooling system or at any other point of uniform mixing. Add 40 to 200 ppm product to the water in the system depending upon severity of contamination. Repeat as needed to maintain control. Badly fouled systems must be cleaned before treatment.

**ULTRA FILTRATION AND NON-MEDICAL REVERSE OSMOSIS MEMBRANE SYSTEMS**

*Not registered for this use in the State of California- Optional Statement*

Not intended for use in once-through cooling systems.

Use only for industrial process water. Verify membrane compatibility with membrane manufacturer prior to use.

**CONTINUOUS FEED**

Add product to metering device for continuous feed. Add 20 to 200 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment. Do not exceed more than 200 ppm product in system water per day.

**SLUG DOSING**

Add product to basin of cooling system or at any other point of uniform mixing. Add 40 to 200 ppm product to the water in the system depending upon severity of contamination. Repeat as needed to maintain control. Badly fouled systems must be cleaned before treatment.

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**INDUSTRIAL WASTEWATER SYSTEMS**

UCARCIDE 50 Antimicrobial must be added to a wastewater system or wastewater sludge at a convenient point of uniform mixing such as the digester. Add 450 to 2,250 ppm of product to the wastewater or sludge.

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

UCARCIDE 50 Antimicrobial must 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. For control of microbial growth use either continuous or slug dosing.

**CONTINUOUS FEED**

Add product to metering device for continuous feed. Add 30 to 500 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment. Do not exceed more than 500 ppm product in system water per day.

**SLUG DOSING**

Add product to basin of cooling system or at any other point of uniform mixing. Add 30 to 500 ppm product to the water in the system depending upon severity of contamination. Repeat as needed to maintain control. Badly fouled systems must be cleaned before treatment.

**PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS**

UCARCIDE 50 Antimicrobial must be added to the paper making system at a point of uniform mixing such as the beaters, broke chest pump, save-all tank, or white-water tank.

**Initial Dose:** When the system is noticeable 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 UCARCIDE50 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)**

Add 100 to 600 ppm UCARCIDE 50 Antimicrobial (based on slurry solids) in the mixed slurry.

**WATER BASED COATINGS FOR PAPER AND PAPERBOARD**

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

Add 100 to 600 ppm UCARCIDE 50 Antimicrobial (based on slurry solids) in the mixed slurry.

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### **Oil and Gas Production Uses**

At a point of uniform mixing, apply UCARCIDE 50 Antimicrobial at a concentration within the stated dosing range for the relevant product application. Subsequent treatments can be applied, as needed, to maintain an effective microbial control concentration, within the described dosage range. The stated concentration ranges provide microbial control of microorganisms at differing levels of contamination.

### **Drilling, Completion, and Workover Fluids**

Add 125 to 2500 ppm product to the freshly-prepared fluid system. Subsequent treatments may be applied, as needed, to maintain a concentration of 50 to 1000 ppm due to fluid reuse or turn over.

### **Packer Fluids**

Add 50 to 600 ppm product to a circulating packer fluid to ensure uniform mixing. Seal the treated packer fluid in the wall between the casing and production tube.

### **Fracturing Fluids**

Add 100 to 5,000 ppm product at any point in the production or application of the fracturing fluid to reduce bacterial contamination and fracturing fluid degradation.

### **Water Floods and Enhanced Oil Recovery Fluids**

Intermittent or continuous dosing can be applied to the fluid to achieve a concentration of 20 to 5,000 ppm product for effective microbial control.

### **Injection Waste Fluids**

Add 100 to 5,000 ppm product to the waste fluid prior to or at injection into an approved disposal well.

### **Oil and Gas Water Storage and Transmission Systems**

Add 100 to 10,000 ppm product to the water storage or transmission system as needed to maintain microbial control.

### **Gas Storage Wells and Systems**

Individual injection wells should be treated to produce a concentration of 500 to 5,000 ppm product based on the water volume present in the system. Yearly treatments should be applied to maintain effective microbial control. Individual drips should contain 200 to 2000 ppm as needed to maintain microbial control.

### **Hydrotesting**

Water used to hydrotest pipelines or vessels should contain 100 to 4,000 ppm product.

### **Pipeline Pigging and Scraping Operations**

Add the appropriate volume of product to achieve a concentration of 1,000 to 10,000 ppm product in the water slug applied immediately following the scraper.

### **Hydrocarbon Production, Storage and Transmission Systems**

Add via direct injection to achieve a concentration of 1,000 to 10,000 ppm product based on the volume of water in the system. For pipeline uses, after application and complete distribution throughout the pipeline, a detectable amount of residual product should be present at the back end of the pipeline system.



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**AQUEOUS METALWORKING FLUIDS**

UCARCIDE 50 Antimicrobial must be added to a metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Badly fouled systems should be cleaned before treatment is begun. Add 72 to 540 ppm product to the metalworking fluid system. Repeat until control is achieved.

**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.  
Add 100 to 600 ppm product to the diluted lubricant.

**GENERAL PRESERVATIVE USE**

UCARCIDE 50 Antimicrobial 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 UCARCIDE 50 Antimicrobial 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 UCARCIDE 50 Antimicrobial per 1,000 lbs water content). Mix uniformly.

**PRESERVATIVE FOR CONCENTRATES**

For use in concentrates where effective preservation is needed after dilution, add UCARCIDE 50 Antimicrobial to the product formulation at a rate such that the diluted end -use product will contain 0.02% to 0.20% UCARCIDE 50 Antimicrobial.

**At no time during the preservation process should the level of UCARCIDE™ 50 Antimicrobial exceed 2%.**

**REVERSE OSMOSIS MEMBRANES ELEMENT PERSEVERATION**

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% UCARCIDE 50 Antimicrobial. UCARCIDE 50 Antimicrobial 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% UCARCIDE 50 Antimicrobial to the tank in the circulating system. Maintain the concentration of UCARCIDE 50 Antimicrobial by periodic addition to counteract any system leakage.

**CONCRETE ADMIXTURES**

For effective preservation of concrete admixtures, add UCARCIDE 50 Antimicrobial 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 UCARCIDE 50 Antimicrobial per 1,000 lbs. concrete admixture). Mix uniformly.

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**Notice:** Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the Directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

NET WT:

Lot:

Produced For (*used when manufactured by contract manufacturer*)

Dow Diamond TM  
**THE DOW CHEMICAL COMPANY**  
**Midland, Michigan 48674**  
**989-636-4400**

®™ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

MADE IN U.S.A.

**Optional** - 3<sup>rd</sup> party certification label verbiage and symbols in label space outside of FIFRA elements.  
Example: NSF Certification