

464-702

10/8/2009

1/6

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



United States
Environmental Protection
Agency

Office of Pesticide Programs

The Dow Chemical Company
574 Building, Office 2044
Midland, MI 48674

OCT - 8 2009

Attention: Rhonda Vance-Moeser
Senior Regulatory Specialist

Subject: UCARCIDE™ 42 Antimicrobial
EPA Registration No. 464-702
Notification Dated September 14, 2009

This will acknowledge receipt of your notification to revise the container disposal statement on the label in response to PR Notice 2007-4, submitted under the provisions of FIFRA Section 3(c)(9). Based on a review of the submitted material, the following comments apply.

The Notification is in compliance with PR Notice 98-10 and is acceptable. This information has been made a part of your file.

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 (7510P)



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 464-702	2. EPA Product Manager Marshall Swindell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) The Dow Chemical Company/ UCARCIDE™ 42 Antimicrobial		PM# 33
5. Name and Address of Applicant (Include ZIP Code) The Dow Chemical Company 1803 Building Midland, MI 48674 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification to update label in response to PR Notice 2007-4. Enclosed cover letter reflects the required Notification statement.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	If "Yes" Unit Packaging wgt. No. per container		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Package wgt. No. per container			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Rhonda Vance-Moeser	Title Sr. Regulatory Specialist	Telephone No. (include Area Code) (989) 636-1884
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment, both under applicable law.		6. Date Application Received (Stamped) _____ _____ _____ _____ _____
2. Signature <i>Rhonda Vance-Moeser</i>	3. Title Sr. Regulatory Specialist	
4. Typed Name Rhonda Vance-Moeser	5. Date <i>Sept. 14, 2009</i>	



3/6

The Dow Chemical Company
Midland, Michigan 48667

September 14, 2009

Overnight Mail

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, Virginia 22202-4501

**RE: NOTIFICATION – EPA REG. NO. 464 –702
UCARCIDE™ 42 Antimicrobial**

To Whom It May Concern:

The Dow Chemical Company (Dow) hereby submits a Notification application to revise the container disposal statement on the label in response to PR Notice 2007-4. In order for the application to be processed the required Notification statement is below.

“This Notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject enforcement action and penalties under section 12 and 14 of FIFRA”

Enclosed are the following documents to support this Notification

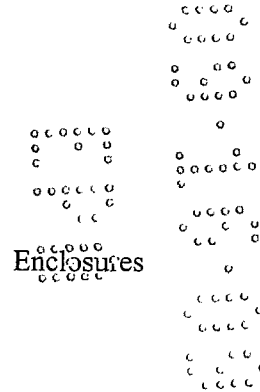
- 1) Completed application, Pesticide Registration, Form 8570-1.
- 2) One marked copy of the label indicating the change highlighted in yellow.
- 3) Two copies of final label.

Please contact me if you have any questions or need additional information.

Sincerely,

Rhonda Vance-Moeser
BM

Rhonda Vance-Moeser
Senior Regulatory Specialist
574 Building, Office 2044
Midland, MI 48667
Phone: (989) 636-1884
e-mail: rgvmoeser@dow.com



Enclosures

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER**

KEEP OUT OF REACH OF CHILDREN

Corrosive. Causes irreversible eye damage. Causes skin burns. May be fatal if swallowed or absorbed through skin. Harmful if inhaled. 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

UCARCIDE 42 Antimicrobial is incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. UCARCIDE 42 Antimicrobial can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about 7° F (-14° 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 (26.7° C).

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.

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 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.

**Label option for nonrefillable containers all sizes
CONTAINER DISPOSAL:** Nonrefillable container: Do not reuse or refill 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 to use for labels on refillable 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 spray rinsate into application equipment or other container.

**UCARCIDE™ 42
Antimicrobial**

A HIGHLY EFFECTIVE MICROBIOCIDICIDE FOR USE IN CONTROLLING BACTERIA INCLUDING SLIME FORMING BACTERIA AND SULFATE-REDUCING BACTERIA AND FUNGI (YEAST AND MOLDS) AND ALGAE IN AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, RECIRCULATING COOLING AND PROCESS WATER SYSTEMS INCLUDING THOSE THAT CONTAIN REVERSE OSMOSIS MEMBRANES AND IN SERVICE WATER AND AUXILIARY SYSTEMS AND HEAT TRANSFER SYSTEMS AND IN WASTEWATER SYSTEMS INCLUDING WASTEWATER SLUDGE AND HOLDING TANKS, AND IN PAPER MILLS AND PAPER MILLPROCESS WATER SYSTEMS AND WATER BASED COATINGS FOR PAPER AND PAPERBOARD AND IN OIL WELL DRILLING, OIL FIELD PROCESSING APPLICATIONS, OIL FIELD WATER SYSTEMS, OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS, AND GAS STORAGE FIELDS AND EQUIPMENT; SUCH AS, STEAM-INJECTION WATER HOLDING TANKS, FLOOD WATER, FRACTURING FLUIDS, INJECTION WATER, HOLDING POND WATER, DISPOSAL-WELL WATER, WATER HOLDING TANKS, FUEL STORAGE TANKS AND RELATED REFINERY AND OIL FIELD CLOSED, INDUSTRIAL RECIRCULATING WATER HANDLING SYSTEMS AND AN INDUSTRIAL SANITIZER FOR USE IN CONTROLLING MICROBIAL CONTAMINATION IN ANIMAL PRODUCTION FACILITIES AND FARM EQUIPMENT SUCH AS POULTRY & TURKEY HOUSES, SWINE HOUSING AND FARROWING AREAS, BARNs AND LARGE ANIMAL BUILDINGS, HATCHERS, SETTERS, AND CHICK PROCESSING FACILITIES, CAGES AND TRANSPORT VEHICLES, AND HATCHING EGGS AND FOR SANITIZING INDUSTRIAL OR NON-FOOD CONTACT SURFACES SUCH AS EQUIPMENT FOR MIXING, PACKING, OR PACKAGING PRODUCTS, PRODUCT TRANSFER LINES, STORAGE TANKS, FLOORS AND WALLS AND FOR USE BY MANUFACTURERS AND FORMULATORS IN FORMULATING PRODUCTS FOR ANIMAL HOUSING AND INDUSTRIAL SANITIZING APPLICATIONS. FORMULATORS USING THIS PRODUCT ARE RESPONSIBLE FOR THE EPA REGISTRATION OF THEIR FORMULATING PRODUCTS.

Active Ingredient: Glutaraldehyde 42.5%
Alkyl (C₁₄ 50%, C₁₂ 40%, C₁₆ 10%)
dimethyl benzyl ammonium chloride 7.5%
Inert Ingredients: 50.0%
Total: 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:

- 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

Produced for:



The Dow Chemical Company
Midland, Michigan 48674 U.S.A.
(989)636-4400

®TM Trademark of The Dow Chemical Company
("Dow") or an affiliated company of Dow
Made in U.S.A.

EPA Reg. No. 464-702
EPA Est. No. 10352-WV-2 (A); 464-WV-1 (B)
EPA Est No. 10352-WV-1 (C)
(A) 5 gallon pails in pallets; all drums, bulk
(B) Samples and 5 gallon pails less than pallet
(C) Bulk Shipments

(M 1208)
PE1208

Net Contents: 5, 55 gallons or Bulk

CONTAINER SIZE TOTE 260.8 GALLONS	CONTAINER SIZE 55 GALLONS	CONTAINER SIZE 5 GALLONS	SHIPPING NAME	CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS GLUTARALDEHYDE)	
2,394 POUNDS NET WEIGHT	505 POUNDS NET WEIGHT	43 POUNDS NET WEIGHT	HAZARD CLASS 8, 5.1	ID NUMBER UN2822	PGII

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

Antimicrobial

ACTIVE MICROBIOCIDAL FOR USE IN CONTROLLING BACTERIA INCLUDING BACTERIA AND SULFATE-REDUCING BACTERIA AND FUNGI (YEAST AND ALGAE) IN AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, COOLING AND PROCESS WATER SYSTEMS INCLUDING THOSE THAT USE OSMOSIS MEMBRANES AND IN SERVICE WATER AND AUXILIARY HEAT TRANSFER SYSTEMS AND IN WASTEWATER SYSTEMS INCLUDING SLUDGE AND HOLDING TANKS, AND IN PAPER MILLS AND PAPER WATER SYSTEMS AND WATER BASED COATINGS FOR PAPER AND OIL IN OIL WELL DRILLING, OIL FIELD PROCESSING APPLICATIONS, OIL STEMS, OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND GAS STORAGE FIELDS AND EQUIPMENT; SUCH AS, STEAM-INJECTION TANKS, FLOOD WATER, FRACTURING FLUIDS, INJECTION WATER, WATER, DISPOSAL-WELL WATER, WATER HOLDING TANKS, FUEL S AND RELATED REFINERY AND OIL FIELD CLOSED, INDUSTRIAL WATER HANDLING SYSTEMS AND AN INDUSTRIAL SANITIZER FOR USE IN MICROBIAL CONTAMINATION IN ANIMAL PRODUCTION FACILITIES AND IT SUCH AS POULTRY & TURKEY HOUSES, SWINE HOUSING AND AS, BARNS AND LARGE ANIMAL BUILDINGS, HATCHERS, SETTERS, AND NG FACILITIES, CAGES AND TRANSPORT VEHICLES, AND HATCHING SANITIZING INDUSTRIAL OR NON-FOOD CONTACT SURFACES SUCH AS MIXING, PACKING, OR PACKAGING PRODUCTS, PRODUCT TRANSFER TANKS, FLOORS AND WALLS AND FOR USE BY MANUFACTURERS AND FORMULATING PRODUCTS FOR ANIMAL HOUSING AND INDUSTRIAL APPLICATIONS. FORMULATORS USING THIS PRODUCT ARE RESPONSIBLE FOR THE PROTECTION OF THEIR FORMULATING PRODUCTS.

Active Ingredient: Glutaraldehyde	42.5%
Alkyl (C ₁₄ 50%, C ₁₂ 40%, C ₁₆ 10%)	
dimethyl benzyl ammonium chloride	7.5%
ert Ingredients:	50.0%
Total:	100.0%

**OUT OF REACH OF CHILDREN
DANGER**

FIRST AID

Control center or a doctor immediately for treatment advice.
 If VOMITING, do not induce vomiting.
 Give plenty of water to drink.

Flush eyes and continuously with flowing water for at least 30 minutes. Obtain prompt medical attention after the first 5 minutes and continue washing. Obtain prompt medical attention, preferably from an ophthalmologist.
 Control center or a doctor immediately for treatment advice.

Inhalation:
 Remove contaminated clothing.
 Wash immediately with plenty of water for 15-20 minutes.
 Control center or a doctor for treatment advice.

Ingestion:
 Give plenty of fresh air.
 If breathing, call 911 or an ambulance, and then give artificial respiration, if possible.
 Control center or a doctor for further treatment advice.

Inhalation: Aspiration may cause lung damage. Probable mucosal damage. Induce vomiting if possible.
 Give plenty of water to drink.
 Control center or a doctor for treatment advice.

Ingestion: If available, the product container or label with you when calling a doctor or a doctor, or going for treatment.

PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No. 464-702
 EPA Est. No. 10352-WV-2 (A); 464-WV-1 (B)
 EPA Est No. 10352-WV-1 (C)
 (A) 5 gallon pails in pallets; all drums, bulk
 (B) Samples and 5 gallon pails less than pallet
 (C) Bulk Shipments

(M 1208)
 PE1208

Dow Chemical Company
 48674 U.S.A.

55 GALLONS		43 POUNDS	
CONTAINER SIZE	CONTAINER SIZE	SHIPPING NAME	OPPOSITE LIQUID, TOXIC, N.O.S. (CONTAINS GLUTARALDEHYDE)
55 POUNDS NET WEIGHT	43 POUNDS NET WEIGHT	HAZARD CLASS 8, 6.1	ID NUMBER UN2922 PGII

EMERGENCY: Call 1-800-421-6242 for emergency information. For more information on this product, call 1-800-421-6242.

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 42 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 42 Antimicrobial. Under these conditions, blowdown should be discontinued for up to 24 hours.

UCARCIDE 42 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 12.7 to 25.5 fluid ounces of UCARCIDE 42 Antimicrobial per 1,000 gallons of water in the system. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 5.1 to 12.7 fluid ounces of UCARCIDE 42 Antimicrobial per 1,000 gallons 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 12.7 to 25.5 fluid ounces of UCARCIDE 42 Antimicrobial per 1,000 gallons of water in the system.
Subsequent Dose: Maintain this treatment level by starting a continuous feed of 2.6 to 12.7 fluid ounces of UCARCIDE 42 Antimicrobial per 1,000 gallons of water in the system per day.
 Badly fouled systems must be cleaned before treatment is begun.

SERVICE WATER AND AUXILIARY SYSTEMS
 UCARCIDE 42 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 Sweetwater Systems, Hydrostatic Sterilizers and Retorts, and Pasteurizers and Warmers)
 UCARCIDE 42 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 42 Antimicrobial should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 0.45 to 2.3 gallons (500 to 2,500 ppm UCARCIDE 42 Antimicrobial) per 1,000 gallons of wastewater or sludge.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS
 UCARCIDE 42 Antimicrobial should be added to a paper making system at a point of uniform mixing such as the thin or thick stock chest, save-all tank, process tank or white-water tank.
Initial Dose: When the system is noticeably contaminated, add 0.5 to 3.0 lbs. of UCARCIDE 42 Antimicrobial per ton or 0.15 to 1.5 Kg of UCARCIDE 42 Antimicrobial per metric ton of pulp or paper (dry basis) as a continuous or 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 lb of UCARCIDE 42 Antimicrobial per ton or 0.15 to 1.0 kg of UCARCIDE 42 Antimicrobial per metric ton of pulp or paper (dry basis) as necessary to maintain control.

WATER BASED COATINGS, PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD
NOTE: For use in non-food contact coatings only.
 Use from 0.1 to 0.6 lbs. of UCARCIDE 42 Antimicrobial per 1,000 lbs. of dry powder to produce a concentration of 100 to 600 ppm as product (based on slurry solids) in the mixed slurry.

WATER FLOODS
 UCARCIDE 42 Antimicrobial should be added to a water flood system at a point of uniform mixing.
Initial Treatment: When the system is noticeably contaminated, add 100 to 5,000 ppm UCARCIDE 42 Antimicrobial to the system (0.09 to 4.5 gallons UCARCIDE 42 Antimicrobial per 1,000 gallons flood water). Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 20 to 5,000 ppm UCARCIDE 42 Antimicrobial (0.02 to 4.5 gallons UCARCIDE 42 Antimicrobial per 1,000 gallons flood water) to the system weekly, or as needed to maintain control.

FRAC FLUIDS
 UCARCIDE 42 Antimicrobial reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. Add UCARCIDE 42 Antimicrobial to the frac water storage tanks or directly into the well head injection pipeline as the water is being pumped down-hole.
Dose Range: UCARCIDE 42 Antimicrobial should be added at a rate of 118 to 5,882 ppm (1.1 - 53.3 gals per 10,000 gallons) depending on the degree of bacterial fouling in the source water.

DRILLING, COMPLETION, AND WORKOVER FLUIDS
 UCARCIDE 42 Antimicrobial should be added to a drilling fluid system at a point of uniform mixing such as the circulating mud tank.
Initial Treatment: Add 50 to 1,000 ppm UCARCIDE 42 Antimicrobial (0.2 to 3.8 gallons UCARCIDE 42 Antimicrobial per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination.
Maintenance Dosage: Maintain a concentration of 50 to 1,000 ppm UCARCIDE 42 Antimicrobial by adding 0.2 to 3.8 gallons of UCARCIDE 42 Antimicrobial per 100 barrels of additional fluid, or as needed, depending on the severity of contamination.

PACKER FLUIDS
 UCARCIDE 42 Antimicrobial should be added to a packer fluid at a point of uniform mixing such as a circulating holding tank. Add 50 to 600 ppm UCARCIDE 42 Antimicrobial (0.2 to 2.3 gallons UCARCIDE 42 Antimicrobial per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination. Seal the treated packer fluid in the wall between the casing and production tube.

OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS
 UCARCIDE 42 Antimicrobial should be added to an oil or gas production or transmission line via direct injection. The application should be conducted to ensure maximum distribution of UCARCIDE 42 Antimicrobial throughout the entire internal pipeline surface by adding a sufficient amount of biocide to detect/measure a residual concentration, at the back end of the pipeline system. Criteria for success of the treatment will be a reduction in bacterial counts and/or reduced corrosion rates. To facilitate application, it may be desirable to dilute the UCARCIDE 42 Antimicrobial with an appropriate solvent immediately before use. The concentration in the solvent should not fall below an active concentration range of 500 to 5000 ppm based on the volume of water in the pipeline. Injections to the system should be weekly, or as needed to maintain control.

concentration formation. repeated ye Individual concentrat injections sh
 Water used 1 3.6 gallons U equipment wi
 Add UCARC be kept to a r should be ad gallons water
SANITIZIN
 *Not for use
DO NOT US UCARCIDE painted conc
 Product Diluti To sanitize v aureus, and i and HSN1), 5
 1. Remove fil with a suit
 2. Thoroughly 0.14 to 0.5l per liter) to Porcine cl water (2.2 t ingredient.
 3. Allow to ste
 4. Ventilate th
 5. Fresh soluti

Before applyin
 1. Remove all feeders and potable wat
 2. Remove all treatment w
 3. Using suitab (see Produc
 4. Allow to star Dilution, abc
 5. Ventilate em
 6. Do not repo
 1. General san Clean out fe the appropri stand for at l above.) Vent
 2. Treatment of cooling: Prep Product Dilut equipment. Treatment of Fog or atomi
 T Remove all fill appropriate am immersion, anc organisms being
 Remove all fillt mixing the appr air-dry. Allow to
 Prepare a soluti bath at 105° to allow to drain an
SANITI
 *Not for use in
 Before applying cleaner. Dilute U of UCARCIDE available equip minutes, or for a enclosed spaces



NOTICE
 Do Not Ship or Store Feeds, Drugs, or Clot

** Changed in Yellow*

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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

Product may be used only in industrial air washers and air washer systems which have mist-eliminating nozzles.

UCARCID 42 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 (3 DOSE) or continuously. Badly fouled systems can be shock treated with UCARCID 42 Antimicrobial. Under these conditions, blowdown should be discontinued for up to 24 hours.

UCARCID 42 Antimicrobial can be used in industrial process water systems that contain ultra filtration units on-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 12.7 to 25.5 fluid ounces of UCARCID 42 Antimicrobial per 1,000 gallons of water in the system. Repeat until control is achieved.

Maintenance Dose: When microbial control is evident, add 5.1 to 12.7 fluid ounces of UCARCID 42 Antimicrobial per 1,000 gallons of water in the system weekly, or as needed to maintain control.

Fouled systems must be cleaned before treatment is begun.
CONTINUOUS FEED METHOD
Dose: When the system is noticeably fouled, apply 12.7 to 25.5 fluid ounces of UCARCID 42 Antimicrobial per 1,000 gallons of water in the system.

Maintenance Dose: Maintain this treatment level by starting a continuous feed of 2.6 to 12.7 fluid ounces of UCARCID 42 Antimicrobial per 1,000 gallons of water in the system per day.

Fouled systems must be cleaned before treatment is begun.

SERVICE WATER AND AUXILIARY SYSTEMS

UCARCID 42 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 Sweetwater Systems, Hydrostatic Sterilizers and Retorts, and Pasteurizers and Warmers)

UCARCID 42 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 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)

UCARCID 42 Antimicrobial should be added to a wastewater system or sludge at a convenient point of mixing such as the digester. Add 0.45 to 2.3 gallons (500 to 2,500 ppm UCARCID 42 Antimicrobial) per 10 gallons of wastewater or sludge.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS
UCARCID 42 Antimicrobial should be added to a paper making system at a point of uniform mixing such as a thick stock chest, save-all tank, process tank or white-water tank.

Dose: When the system is noticeably contaminated, add 0.5 to 3.0 lbs. of UCARCID 42 Antimicrobial or 0.15 to 1.5 Kg of UCARCID 42 Antimicrobial per metric ton of pulp or paper (dry basis) as a shock or slug dose. Repeat until control is achieved. Heavily fouled systems should be boiled out prior to treatment.

Maintenance Dose: When microbial control is evident, add 0.3 to 2.0 lb of UCARCID 42 Antimicrobial per ton to 1.0 kg of UCARCID 42 Antimicrobial per metric ton of pulp or paper (dry basis) as necessary to maintain control.

WATER BASED COATINGS, PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD
For use in non-food contact coatings only.

Apply 0.1 to 0.6 lbs. of UCARCID 42 Antimicrobial per 1,000 lbs. of dry powder to produce a solution of 100 to 600 ppm as product (based on slurry solids) in the mixed slurry.

WATER FLOODS
UCARCID 42 Antimicrobial should be added to a water flood system at a point of uniform mixing.
Treatment: When the system is noticeably contaminated, add 100 to 5,000 ppm UCARCID 42 Antimicrobial to the system (0.09 to 4.5 gallons UCARCID 42 Antimicrobial per 1,000 gallons flood water) until control is achieved.

Maintenance Dose: When microbial control is evident, add 20 to 5,000 ppm UCARCID 42 Antimicrobial (0.02 to 0.04 gallons UCARCID 42 Antimicrobial per 1,000 gallons flood water) to the system weekly, or as needed to maintain control.

FRAC FLUIDS
UCARCID 42 Antimicrobial reduces bacterial contamination and degradation of fracturing fluids and gels oil and gas well stimulations. Add UCARCID 42 Antimicrobial to the frac water storage tanks or into the well head injection pipeline as the water is being pumped down-hole.

Dose: UCARCID 42 Antimicrobial should be added at a rate of 118 to 5,882 ppm (1.1 - 53.3 gallons per 10 gallons) depending on the degree of bacterial fouling in the source water.

DRILLING, COMPLETION, AND WORKOVER FLUIDS
UCARCID 42 Antimicrobial should be added to a drilling fluid system at a point of uniform mixing such as the mud tank.

Treatment: Add 50 to 1,000 ppm UCARCID 42 Antimicrobial (0.2 to 3.8 gallons UCARCID 42 Antimicrobial per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination.

Maintenance Dosage: Maintain a concentration of 50 to 1,000 ppm UCARCID 42 Antimicrobial by adding 0.2 to 0.4 gallons UCARCID 42 Antimicrobial per 100 barrels of additional fluid, or as needed, depending on the degree of contamination.

PACKER FLUIDS
UCARCID 42 Antimicrobial should be added to a packer fluid at a point of uniform mixing such as a circulating tank. Add 50 to 600 ppm UCARCID 42 Antimicrobial (0.2 to 2.3 gallons UCARCID 42 Antimicrobial per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination. Seal the treated fluid in the wall between the casing and production flow.

OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS

UCARCID 42 Antimicrobial should be added to an oil or gas production or transmission line via direct injection. The application should be conducted to ensure maximum distribution of UCARCID 42 Antimicrobial throughout the entire internal pipeline surface by adding a sufficient amount of biocide to ensure a residual concentration at the back end of the pipeline system. Criteria for success of the application will be a reduction in bacterial counts and/or reduced corrosion rates. To facilitate application, it is desirable to dilute the UCARCID 42 Antimicrobial with an appropriate solvent immediately before application. The concentration in the solvent should not fall below an active concentration range of 500 to 5,000 ppm based on the volume of water in the pipeline. Injections to the system should be weekly, or as needed to maintain control.

GAS STORAGE WELLS AND SYSTEMS

Individual injection wells should be treated with a sufficient quantity of UCARCID 42 Antimicrobial to produce a concentration of 500 to 5,000 ppm UCARCID 42 Antimicrobial when diluted by the water present in the formation. Injection should take place before gas is injected (during the summer). Injections should be repeated yearly, or as needed to maintain control.

Individual drips should be treated with a sufficient quantity of UCARCID 42 Antimicrobial to produce a concentration of 200 to 2,000 ppm UCARCID 42 Antimicrobial when diluted by the water present in the drip. Injections should be repeated yearly, or as needed to maintain control.

HYDROTTESTING

Water used to hydrotest pipelines or vessels should contain 100 to 4,000 ppm UCARCID 42 Antimicrobial (0.09 to 3.6 gallons UCARCID 42 Antimicrobial per 1,000 gallons water), depending on water quality and length of time the equipment will remain idle.

PIPELINE PIGGING AND SCRAPING OPERATIONS

Add UCARCID 42 Antimicrobial to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and a trailing pig). Sufficient UCARCID 42 Antimicrobial should be added to produce a concentration of 0.1 to 1% (0.09 to 0.9 gallon UCARCID 42 Antimicrobial per 100 gallons water), depending on the length of the pipeline and the severity of biofouling.

SANITIZING NON-FOOD CONTACT SURFACES, FARM, ANIMAL, AND POULTRY HOUSING FACILITIES AND EQUIPMENT

*Not for use in the state of California

DO NOT USE THIS PRODUCT ON FOOD OR FEED
UCARCID 42 Antimicrobial is suitable for use on a wide variety of surfaces including stainless steel, aluminum, painted concrete, plastic, glazed tile.

Product Dilution:
To sanitize vegetative pathogens (including *Klebsiella pneumoniae*, *Salmonella choleraesuis*, *Staphylococcus aureus*, and *Pseudomonas aeruginosa*) and viruses (including *Infectious bursal disease*, *Avian influenza (H5N1)* and *H5N1*), *SARS Associated Coronavirus*, *Porcine circovirus* and fungus (including *Aspergillus fumigatus*):

1. Remove filth and soil deposits from surfaces prior to treatment. Pre-clean surfaces with a suitable detergent and rinse with water.
2. Thoroughly saturate all surfaces using a mop or by spraying with a solution prepared by mixing 0.14 to 0.56 fluid ounces of UCARCID 42 Antimicrobial per gallon of water (1.1 to 4.4 milliliters per liter) to produce a solution containing 0.06% to 0.24% active ingredient. For application against *Porcine circovirus*, mix 0.28 to 0.69 fluid ounces of UCARCID 42 Antimicrobial per gallon of water (2.2 to 5.4 milliliters per liter) to produce a solution containing 0.1 to 0.25% active glutaraldehyde ingredient.
3. Allow to stand for at least 5 minutes, or until thoroughly dried.
4. Ventilate thoroughly before reuse.
5. Fresh solution should be prepared daily or more often if the solution becomes diluted or soiled.

Farm Equipment and Animal Housing Buildings

(poultry & turkey grow-out houses, laying houses, swine production and housing, barns and large animal buildings)

Before applying UCARCID 42 Antimicrobial:

1. Remove all poultry and other animals and feed from the premises. Remove all portable equipment and empty all feeders and water troughs. If not removed, all treated feeders and waterers must be thoroughly rinsed with potable water prior to re-use.
2. Remove all litter and manure from floors and other surfaces. If litter is not removed, allow to stand after treatment with UCARCID 42 Antimicrobial for at least ten minutes before repopulation.
3. Using suitable commercially available equipment, saturate all surfaces with diluted UCARCID 42 Antimicrobial (see Product Dilution, above).
4. Allow to stand for at least 5 minutes, or for longer depending on the organisms being treated (See Product Dilution, above).
5. Ventilate enclosed spaces.
6. Do not repopulate with poultry or other animals, or use equipment until treatment has been absorbed or dried.

Hatchers, Setters, and Chick Processing Facilities

1. General sanitizing of environmental surfaces prior to introduction of eggs: Remove all animals from the area. Clean out feathers, fluff, or other debris. Thoroughly saturate all surfaces with a solution prepared by mixing the appropriate amount (see Product Dilution, above) of UCARCID 42 Antimicrobial with water. Allow to stand for at least 5 minutes, or for longer depending on the organisms being treated. (See Product Dilution, above.) Ventilate thoroughly before reuse.

2. Treatment of air and surfaces after introduction of eggs in high humidity hatchers and setters with water spray cooling: Prepare a solution by mixing the appropriate amount of UCARCID 42 Antimicrobial with water (see Product Dilution, above). Fog or atomize this solution into setters or hatchers, using appropriate application equipment.

Treatment of air and surfaces after introduction of eggs in low humidity hatchers with chilled coil cooling: Fog or atomize this product using appropriate application equipment.

Trays, Racks, Carts, Chick Boxes, Cages, and other Hard Surfaces:

Remove all filth and heavy debris from surfaces by scraping or washing. Prepare a solution by mixing the appropriate amount (see Product Dilution, above) of UCARCID 42 Antimicrobial with water. Apply by spraying or immersion, and allow to drain and air dry. Allow to stand for at least 5 minutes, or for longer depending on the organisms being treated.

Trucks and other Vehicles

Remove all filth and heavy debris from surfaces by scraping or washing. Spray surfaces with a solution prepared by mixing the appropriate amount (see Product Dilution, above) of UCARCID 42 Antimicrobial with water. Allow to air-dry. Allow to stand for at least 5 minutes, or for longer depending on the organisms being treated.

Egg Sanitization

(for treating hatching eggs only)

Prepare a solution by mixing 0.3 fluid ounces of UCARCID 42 Antimicrobial with one gallon of water. Place in a bath at 105° to 115°F (40° to 45°C). Place freshly laid eggs in plastic trays and dip briefly (10 to 15 seconds), then allow to drain and air-dry.

SANITIZING NON-FOOD CONTACT SURFACES, INDUSTRIAL EQUIPMENT AND BUILDINGS

*Not for use in the state of California

Before applying UCARCID 42 Antimicrobial remove heavy filth and soil deposits from surfaces using a suitable cleaner. Dilute UCARCID 42 Antimicrobial to 0.06% to 0.24% active ingredient by mixing 0.14 to 0.56 fluid ounces of UCARCID 42 Antimicrobial per gallon of water (1.1 to 4.4 milliliters per liter). Using suitable commercially available equipment, saturate all surfaces with diluted UCARCID 42 Antimicrobial. Allow to set for at least five minutes, or for a longer time depending on the organisms being treated (See Product Dilution, above). Ventilate enclosed spaces.



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

Yellow