

# DOWICIL\* QK-20 Antimicrobial

Reduces microbial contamination in process water, raw materials and formulated consumer, institutional and industrial products. Reduces microbial contamination in wastewater, recycled process water, recycled products, recycled wastewater and equipment cleaning operations.

## FOR INDUSTRIAL USE ONLY

Active ingredient(s):  
 2,2-Dibromo-3-nitropropionamide .....20%  
 Inert ingredient(s): .....80%  
 Total 100%

E.P.A. Registration No. 464-628

E.P.A. Est. 464-MI-1

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

## PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

### DANGER

**CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE OR SKIN BURNS • DO NOT GET IN EYES, ON SKIN OR ON CLOTHING • MAY CAUSE LOSS OF VISIONS- HARMFUL IF ABSORBED THROUGH SKIN • HARMFUL IF SWALLOWED OR INHALED • AVOID BREATHING VAPOR • WEAR GOGGLES OR FACE SHIELD (SAFETY GLASSES) • WEAR PROTECTIVE CLOTHING (LONG-SLEEVE SHIRT AND LONG PANTS, SOCKS PLUS SHOES AND CHEMICAL RESISTANT GLOVES SUCH AS WATERPROOF GLOVES) • WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, OR USING TOBACCO • REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.**



THE DOW CHEMICAL COMPANY

Midland, Michigan 48674 U.S.A.

(989)636-4400

\* Trademark of THE DOW CHEMICAL COMPANY

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FIRST AID:	
<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 eye.</li> <li>• Obtain prompt medical treatment, preferably from an ophthalmologist.</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 SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>
HOT LINE NUMBER	
<b>IN CASE OF AN EMERGENCY</b> endangering life or property involving this product, call collect 989-636-4400. Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	

## Personal Protective Equipment

Applicators and other handlers must wear:  
 - coveralls, over long-sleeved shirt and long pants  
 - socks and chemical resistance footwear  
 - goggles or face shields  
 - chemical-resistant gloves (such as barrier, laminated, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, viton)  
 - For mixing/loading: wear a chemical resistant apron  
 Follow manufacturer's 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.

## User Safety Recommendations

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.

## General Precautions and Restrictions

Do not apply this product directly in a way that will contact workers or other persons.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.  
 Storage: To maintain product quality, store at temperatures below 60°C. Keep container tightly closed when not in use.



## NOTICE

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

## ENVIRONMENTAL HAZARDS

This product is toxic or highly toxic to fish and aquatic organisms. Apply this product only as specified on this label. Do not contaminate water by cleaning of equipment, or disposal of wastes.  
 NOTE: 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.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinate 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.

**Container Disposal:** Do not reuse empty container. Triple rinse (or equivalent). 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.

**Reusable Portable Containers (Totes):** Do NOT rinse containers. Do not put any other material(s) in containers. Seal all openings with proper fittings and clean outside of container. Then return container to The Dow Chemical Company.

## DIRECTIONS FOR USE

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

**NOTE: ADD DOWICIL QK-20 ANTIMICROBIAL SEPARATELY TO THE SYSTEM. DO NOT MIX IT WITH OTHER ADDITIVES PRIOR TO ADDITION IN ORDER TO AVOID DECONTAMINATION OF DOWICIL QK-20 ANTIMICROBIAL DUE TO THE HIGH pH OF MANY ADDITIVE FORMULATIONS.**

## PROCESS, PRODUCT, WASTEWATER & RECYCLE CLEAN UP

DOWICIL QK-20 Antimicrobial may be used to reduce microbial contamination in process water and raw materials during the formulating phase, or it can be added directly to the final formulated product to reduce microbial contamination prior to packaging. DOWICIL QK-20 Antimicrobial may also be used for treatment of wastewater, recycled process water and materials or recycled wastewater. The required concentration will depend upon the material being treated and the contamination load. Organic load, pH, exposure load and time are matrix effects that impact efficacy of the biocide. You will need to determine the optimum level to use for your system or product within the guidelines given below. Do not use at greater than recommended levels.

Consumer, Household & Institutional Processes & Products  
 DOWICIL QK-20 Antimicrobial is not intended for use in personal care products.

## PROCESS WATER & RAW MATERIAL CLEAN UP

To reduce microbial contamination in process water or raw materials used to make consumer, household or institutional products, add DOWICIL QK-20 Antimicrobial directly to the water or raw material at a concentration of 125-1,000 ppm by weight.

## DIRECT PRODUCT ADDITION

To reduce microbial contamination in formulated products such as hard surface cleaners, laundry detergent, fabric softeners and other water based formulations, add 125-250 ppm by weight DOWICIL QK-20 Antimicrobial directly to the product prior to packaging. Thorough mixing is recommended.

## Consumer, Household & Institutional Recycle Water, Recycle Product Cleanup & Recycle Wastewater

DOWICIL QK-20 Antimicrobial may be added to recycle process water, a recycle product stream or added to a recycle waste water stream to reduce microbial contamination. Add at a convenient point of uniform mixing. This can be either continuous feed directly into a transfer line or slug fed to the storage container for either wash water or product. Add 125 to 1,000 ppm by weight. This concentration is equivalent to 38 to 303 ml (1.28 to 10.2 fluid oz) DOWICIL QK-20 Antimicrobial per 100 gallons to be treated.

## Industrial Processes & Products

## PROCESS WATER & RAW MATERIAL CLEAN UP

To reduce microbial contamination in process water or raw materials used to make industrial products, add DOWICIL QK-20 Antimicrobial directly to the process water or raw material at a concentration of 125-2,000 ppm by weight. This includes raw materials and/or products such as aqueous paints and coatings, polymers, slurries, adhesives, latex and resin emulsions and surfactants.

## DIRECT PRODUCT ADDITION

To clean up microbial contamination in a final formulated industrial product, add 125-500 ppm by weight DOWICIL QK-20 Antimicrobial directly to the product prior to packaging.

## Industrial Recycle Water, Recycle Product Clean Up & Recycle Wastewater

DOWICIL QK-20 Antimicrobial may be added to recycle process water, a recycle product stream or added to a recycle waste water stream to reduce microbial contamination. Add at a convenient point of uniform mixing. This can be either continuous feed directly into a transfer line or slug fed to the storage container for either wash water or product. Add 125 to 2,000 ppm by weight. This concentration is equivalent to 38 to 606 ml (1.28 to 20.4 fluid oz) DOWICIL QK-20 Antimicrobial per 100 gallons to be treated.

## INDUSTRIAL WASTEWATER SYSTEMS

Not registered for this use in the State of California  
 Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks

DOWICIL QK-20 Antimicrobial may be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 125-2,000 ppm by weight; this concentration is equivalent to 378 - 6054 milliliters (12.8 - 204.7 fluid oz.) DOWICIL QK-20 Antimicrobial per 1,000 gallons of water.

## Tankside Addition To Electrodeposition Systems

Not registered for this use in the State of California  
 DOWICIL QK-20 Antimicrobial may be added as a tankside additive in recirculating electrodeposition systems and associated rinse systems to control microbial contamination. DOWICIL QK-20 Antimicrobial should be added into the recirculating rinse system, ultra filter permeate, or final distilled rinse system at a point to ensure uniform mixing. Add 125 to 2,000 ppm by weight. This concentration is equivalent to 378 - 6054 milliliters (12.8 - 204.7 fluid oz.) of DOWICIL QK-20 Antimicrobial per 1,000 gallons of water.

## EQUIPMENT CLEANING

Not registered for this use in the State of California  
 DOWICIL QK-20 Antimicrobial can be used to kill microorganisms present in solution or growing on the surfaces of process equipment such as: reaction vessels, storage tanks and containers, piping and hoses. For standard cleaning of equipment, add 50 to 250 ppm by weight DOWICIL QK-20 Antimicrobial, in an aqueous solution, to process piping or equipment. Heavily fouled solutions or equipment may be treated with up to 2000 ppm of DOWICIL QK-20 Antimicrobial. After treating process equipment with the DOWICIL QK-20, allow the DOWICIL QK-20 solution to be in contact with surfaces for up to four hours.

If bleach is being used for cleaning purposes at 50 to 250 available chlorine, DOWICIL QK-20 Antimicrobial can be used as part of a dual treatment program at 50 to 100 ppm by weight, in combination with sodium hypochlorite. Treat process equipment with chlorine first. Follow this treatment with DOWICIL QK-20 Antimicrobial. Do not combine concentrated sodium hypochlorite solution with DOWICIL QK-20 Antimicrobial.

Notice: 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 (except uses for which USEPA has accepted the required data analysis) and that the manufacturer has submitted in support of registration 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.

**ACCEPTED**  
 JUL 18 2006  
 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 464-628

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