

PM 33

69897-4

12/3/98

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# Microfree<sup>®</sup> Brand Z 200

## A DuPont Antimicrobial Powder Formulation

A Microbiocide for Use in the Manufacture and Preservation of Commodity Products

Active Ingredients:	
Silver	0.24%
Zinc Oxide	95.94%
Inert Ingredients: 3.82%	
TOTAL:	100.00%

KEEP OUT OF REACH OF CHILDREN

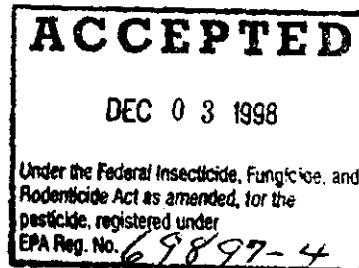
CAUTION

### STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Flush with plenty of water. Call a physician if irritation persists.  
**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.  
**IF SWALLOWED:** If swallowed, drink one or two glasses of water and induce vomiting by touching the back of the throat with finger. Repeat until vomit fluid is clear. Call a physician or poison control center. Do not induce vomiting or give anything by mouth to an unconscious person.  
**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Registration No. 69897-4  
 EPA Establishment No. 6342-OH-02  
 Net Contents: 1 gallon



# Precautionary Statements Hazards to Humans and Domestic Animals

## CAUTION

**CAUTION:** Harmful if swallowed, inhaled, or absorbed through the skin. (Wash thoroughly with soap and water after handling.) Avoid contact with eyes or skin. Avoid contamination of cooking utensils and food preparation surfaces. Avoid breathing dust. Remove contaminated clothing and wash before reuse.

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish. Keep out of any natural body of water. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of 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.

## DIRECTIONS FOR USE:

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

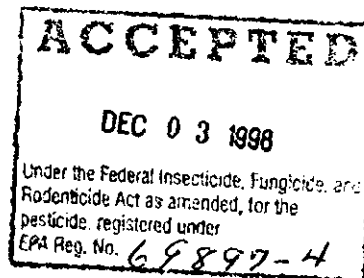
**CLAIMS:** Microfree® Brand Z 200 is an antimicrobial powder for commercial use. It is designed to be incorporated into the materials listed below as part of the manufacturing process to impart antimicrobial activity to the manufactured materials. Microfree® Brand Z 200 antimicrobial powder suppresses the growth of bacteria, mold, and fungi, including those responsible for unpleasant odors, and discoloration of the finished product.

Products containing Microfree® Brand Z 200 may not make claims of antimicrobial activity other than protection of the article itself against growth of bacteria, mold, and fungi in the treated article. If growth of bacteria, mold, and fungi in the treated article would lead to unpleasant odors and discoloration of the treated article, then such a claim may be made.

Do not use in the manufacture or treatment of items that may come in contact with food or drinking water.

Microfree® Brand Z 200 may be incorporated into the following materials at the specified Maximum Inhibitory Concentrations (MIC) on a weight basis of finished products.

<u>APPLICATION</u>	<u>MIC</u>
Plastics (see separate description of resins and applications)	15.0%
Fibers (see separate description of resins and applications)	15.0%
Coatings (see separate description of resins and applications)	10.0%
Adhesives and Sealants (see separate description of resins and applications)	10.0%



**TYPES OF MATERIALS:**

**1) Plastics including films, sheets, slabs, and molded plastic parts:**

**Resins:** Including polyester, polyamide, polyimide, polypropylene, polyethylene, polysiloxane, polyethylene copolymer, polyvinyl alcohol, polyvinyl chloride, epoxy, phenolic, polycarbonate, cellulose acetate, polystyrene, polyurethane, acrylic, polymethyl methacrylate, acrylonitrile-butadiene-styrene copolymer, and fluoropolymers.

**Applications:** For non-human drinking water and non-food use applications only. Including shower curtains, mats, protective covers, tape, packaging, gaskets, waste and general purpose containers, brush handles, sponges, insulators, plastic film, indoor and outdoor furniture, tubing, insulation for wire and cable, siding for housing, liners, kitchen and bathroom hardware, countertops not including kitchen countertops or any other food-contact countertops\*, sinks, footwear including boots, tools, communication equipment, personal grooming equipment, personal cards, sports and exercise equipment, and wheels.

\* Note: Allowable countertop use includes, for example, countertops in bathrooms, dressing areas or garage work-bench areas in private residences, and customer-service countertops in non-food commercial establishments, but does not include countertops in fast-food restaurants or countertops in food processing areas of food manufacturing facilities.

**2) Fibers**

**Resins:** Including polyester including "Dacron," polyolefins, polyethylene, polypropylene, polyamides including "Nylon", acrylics, and "Rayon."

**Applications:** For non-human drinking water and non-food use applications only. Including:

**Home furnishings:** Mattress cover pads, pillow covers, sheets, blankets, fiberfill for quilts and pillows, curtains and draperies, carpet and carpet underlay, upholstery, wiping cloths, towels, bags, wallcover fabrics, cushion pads, and sleeping bags.

**Apparel:** Interliners for jackets, shoes, gloves and helmets, uniforms, coats, aprons, sportswear, sleepwear, stockings, socks, hosiery, caps, and undergarments.

**Industrial:** Brush bristles, artificial leather, filters, book covers, cloth for sails, ropes, tents and other outdoor equipment, and awnings.

**3) Coatings**

**Resins:** Including polyester, polyamide, polyimide, polypropylene, polyethylene, polysiloxane, polyethylene copolymer, polyvinyl alcohol, polyvinyl chloride, epoxy, phenolic, polycarbonate, cellulose acetate, polystyrene, polyurethane, acrylic, polymethyl methacrylate, acrylonitrile-butadiene-styrene copolymer, and fluoropolymers.

**Types of coatings:** water-borne, solvent-borne, 100% solids, and liquid and powder coatings.

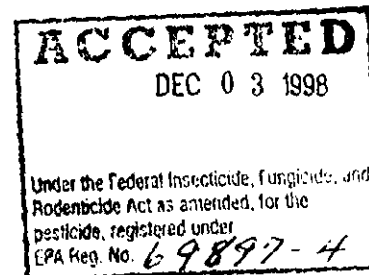
**Applications:** For non-human drinking water and non-food use applications only. Including walls, floors, concrete, siding, roofing shingles, industrial equipment, natural and synthetic fibers and fabrics, packaging, paper products (wall coverings, towels, book covers), barrier fabrics, glazing for cement tile and for vitreous china used in plumbing fixtures such as toilets, sinks, and countertops not including kitchen countertops or any other food-contact countertops\*, communication equipment, personal grooming equipment, personal cards, sports and exercise equipment, and wheels.

\* Note: Allowable countertop use includes, for example, countertops in bathrooms, dressing areas or garage work-bench areas in private residences, and customer-service countertops in non-food commercial establishments, but does not include countertops in fast-food restaurants or countertops in food processing areas of food manufacturing facilities.

**4) Adhesives and sealants**

**Resins:** Including polyester, polyamide, polyimide, polypropylene, polyethylene, polysiloxane, polyethylene copolymer, polyvinyl alcohol, polyvinyl chloride, epoxy, phenolic, polycarbonate, cellulose acetate, polystyrene, polyurethane, acrylic, polymethyl methacrylate, acrylonitrile-butadiene-styrene copolymer, and fluoropolymers.

**Applications:** For non-human drinking water and non-food use applications only. Including adhesives used in the manufacture of wood and plastic composites, adhesives for ceramic tile, wood, rubber and plastic, glazing for windows, grout, and sealants for pipes.



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### STORAGE AND DISPOSAL

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

**PROHIBITIONS:** Do not store in areas accessible to children. Do not store in places where food or feed may come in contact with the product. Keep away from direct sunlight.

**DISPOSAL:** Unused material should be disposed of on site or an approved waste disposal facility.

**CONTAINER DISPOSAL:** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration, if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner.

E. I. du Pont de Nemours & Company, Inc.  
DuPont Specialty Chemicals  
Chambers Works, JL 4210  
Deep Water, NJ 08023

**ACCEPTED**

DEC 03 1998

Under the Federal Insecticide, Fungicide, and  
Rodenticide Act as amended, for the  
pesticide, registered under

EPA Reg. No. 69897-4