MBC 645

COMMERCIAL MICROBIOCIDE

A microbiocide for controlling slime-forming and sulfate-reducing bacteria, fungi, yeast and algae. For use in paper mills and associated process water systems; pigments and filler slurries for food and non-food contact paper and paperboard; non-food contact water based coatings for paper and paperboard; air washers and industrial scrubbing systems; recirculating cooling and process water systems; reverse osmosis membranes; heat transfer systems; service water and auxiliary systems; industrial wastewater systems including wastewater sludge and holding tanks; aqueous metalworking fluids; and preservation of food contact adhesives and mineral slurries used in papermaking.

ACTIVE INGREDIENT:

Glutaraldehyde	45.0%
INERT INGREDIENTS:	55.0%
TOTAL:	100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID	
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor 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 doctor for treatment advice.
If swallowed	• Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN Probable mucosal damage may contraindicate the use of gastric lavage.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes irreversible eye damage. Causes skin burns. Harmful if inhaled or absorbed through the skin. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Avoid breathing vapors and mists. **Not to be used as an aerosol.** Do not swallow. Prolonged or frequently repeated skin contact may cause allergic skin reactions in certain individuals. May cause asthmatic signs and symptoms in some hyper-reatice individuals. Wear eye goggles, rubber gloves and protective clothing when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking and using tobacco. Remove contaminated clothing and wash before re-use.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or 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 sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate water when disposing of equipment washwaters.

Instructions in Case of Spills or leaks: Wear goggles, rubber gloves, and protective clothing. Absorb spills and leaks with inert material such as sand, clay or vermiculite. Shovel into a sealable container and dispose of in an authorized EPA disposal facility.

In Case of Fire: Use water, carbon dioxide, dry chemical (e.g. Sodium bicarbonate) extinguishing medias. Fire fighters should be equipped with self-contained breathing apparatus and turnout gear.

In Case of Chemical Emergency: Call CHEMTREC day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents. 800-424-9300

EPA REG. NUMBER 33753-27-44392

EPA EST. NUMBER

DISTRIBUTED BY:

Nashville Chemical
Redefining Water Treatment Services

NASHVILLE CHEMICAL & EQUIPMENT CO., INC.
7001 WESTBELT DRIVE
NASHVILLE, TN 37209
(615) 350-7070

NET CONTENTS: Lb. Gal.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

MBC 645 solutions are corrosive to many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. These solutions can be stored and handled in baked phenolic lined steel, stainless steel or reinforced epoxy equipment. This product freezes at approximately -20°C (-4°F). 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 (1 month) temperatures up to 100°F can be tolerated; however, the preferred maximum storage temperature is approximately 80°F. Keep away from fire and open flames. A stainless steel centrifugal pump is suggested for transfer service.

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.

CONTAINER HANDLING

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning 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 the container before final disposal, empty the remaining contents from the container into the application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. 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.

GENERAL

Consult Federal, State and local authorities for approved alternative procedures RCRA Hazardous Waste Code D002.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING

GENERAL USE DIRECTIONS

Add MBC 645 at a point of uniform mixing where the treated water will be circulated or mixed throughout the systems. Badly fouled systems should be cleaned before treatment begins. MBC 645 can be applied either intermittently (slug dose) or by continuous feed where stated. Where appropriate, feed points should be below the water line to minimize vapor.

AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, RECIRCULATING COOLING AND PROCESS WATER SYSTEMS

Use only in industrial air washer systems, which have mist-eliminating components. Badly fouled systems can be shock treated by using the highest recommended rate of MBC 645. Under these conditions, blowdown should be discontinued for up to 24 hours. Apply by intermittent or continuous feed methods.

Initial Dose: When the system is noticeably fouled, add 12.8-25.6 fluid ounces (111-222 ppm) of MBC 645 per 1,000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 5.1-12.8 fluid ounces (44-111 ppm) of MBC 645 per 1,000 gal. of water in the system per day, or as needed to maintain control.

REVERSE OSMOSIS MEMBRANES

Use only where approved for compatibility by the membrane manufacturer. Immerse membrane in a tank containing 2,222 to 22,222 ppm MBC 645 for 6 to 24 hours. MBC 645 can also be added to in-line recirculating systems of installed out of service osmosis equipment. Add 222 to 2,222 ppm MBC 645 to the tank on the circulating system and maintain this concentration by periodic addition to counteract any system leakage. Flush the system through with clean water before returning to service.

HEAT TRANSFER SYSTEMS

For use in Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts, and Pasturizers and Warmers, and Once-Through Cooling Water Systems.

Initial Dose: When the system is noticeably fouled, add 12.8-25.6 fluid ounces (111-222 ppm) of MBC 645 per 1,000 gal. of water in the system.

Subsequent Dose: For maintenance, use a continuous feed of 5.1-12.8 fl. oz. (44-111 ppm) of MBC 645 per 1,000 gal. of water in the system per day.

SERVICE WATER AND AUXILLARY SYSTEMS

Use in systems such as fire water reserves, spray paint booths, and emergency cooling water systems. Dose initially at 12.8-25.6 fl. oz (111-222 ppm) of MBC 645 per 1,000 gal. of water in the system. Reapply as necessary to maintain this concentration.

INDUSTRIAL WASTEWATER SYSTEMS

For use in aerobic and anaerobic, belt pressed, digested and undigested sludges; and holding tanks. Add 0.56 to 2.56 gal. (500 to 2,500 ppm) of MBC 645 per 1,000 gal. of wastewater or sludge.

PAPER MILLS AND ASSOCIATED PROCESS WATER SYSTEMS

Apply by intermittent or continuous feed methods.

Initial dose: When the water is noticeably contaminated, add 0.56-3.3 lbs per ton of pulp or paper (dry basis). Repeat until control is achieved.

Subsequent Dose: When microbial control is evident add 0.33-2.2 lbs per ton to pulp or paper (dry basis) as necessary to maintain control.

PIGMENTS AND FILLER SLURRIES FOR FOOD AND NON-FOOD CONTACT PAPER AND PAPERBOARD

To inhibit the growth of spoilage microorganisms during manufacture, storage and distribution of pigments and filler slurries such as kaolin, calcium carbonate and titanium dioxide.

Add MBC 645 to produce a concentration of 111-667 ppm by weight of the formulation slurry (1.1-6.7 lbs. of product per 10,000 lbs. of slurry). Apply once during manufacturer.

WATER-BASED COATINGS FOR NON-FOOD-CONTACT PAPER AND PAPERBOARD

To inhibit the growth of spoilage microorganisms during manufacture, storage and distribution of water-based coatings for use on non-food-contact paper and paperboard.

Add MBC 645 at 111-667 ppm by weight of the formulation slurry (1.1-6.7 lbs of product per 10,000 lbs of slurry).

GENERAL PRESERVATION

Non-food contact

For use by manufacturers for in-can preservation of aqueous industrial, institutional and consumer non-food contact products that require the control of bacteria and fungi; for example, mineral slurries used in paints and plastics, concrete admixtures, pigments, latices, printing inks, paint, laundry detergents, and cleaning products. Add MBC 645 to the product formulation at a rate of 3.1 to 31.1 fluid ounces (222 to 2,222 ppm) per 100 gal. of the water content of the product. Mix uniformly.

Food contact

For use by manufacturers that require the control of bacteria or fungi in the preservation of food contact adhesives and mineral slurries used in papermaking.

Not for use in general preservation in the State of California.

AQUEOUS METALWORKING FLUIDS

MBC 645 should be added to a metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Additions may be added intermittently at intervals of one week or less.

Initial dose: When the system is noticeably fouled apply 0.22 to 0.67 gal. of MBC 645 per 1,000 gal. of metalworking fluid to the system. Repeat until control is achieved.

Subsequent dose: When microbial control is evident, add 0.09 to 0.44 gal. of MBC 645 per 1,000 gal. of metalworking fluid to the system weekly, or as needed to maintain control. Badly fouled systems should be cleaned before treatment begins.

Not for use in aqueous metalworking fluids in the State of California.

CONDITIONS OF SALE

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risk inherently associated with use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of the Seller. All such risks shall be assumed by the Buyer. The manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to above.

THE MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

The manufacturer offers this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative.

UN 2922, CORROSIVE LIQUID, TOXIC, N.O.S. (GLUTARALDEHYDE)
8 (6.1), PG II

10/01/2009

SAMPLE LABEL