BUSAN 1202

BUSAN is a registered trademark.

A microbiocide for controlling slime-forming bacteria, sulfate-reducing bacteria, fungi, yeast and algae in paper mills and paper mill process water systems, pigments and filler slurries for food contact paper and paperboard, non-food contact water based coatings for paper and paper board, air washers, recirculating cool water systems, heat transfer systems, and oil well drilling and oil field processing applications. Do not use in any marine and/or estuarine oil field applications.

ACTIVE INGREDIENT(S)	
Glutaraldehyde	50.0%
INERT INGREDIENTS	50.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID	
If in Eyes	- Hold eye open and rinse slowly and gently with water for 15-20 minutes. - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. - Call a poison control center or doctor for further treatment advice.
If on Skin, Clothes	- 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 further 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 901-278-0330 or 1-800-BUCKMAN 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 and skin burns. Harmful or fatal if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Avoid breathing vapours and mists. Not to be used as an aerosol. May cause allergic skin reactions in certain individuals. May cause asthmatic signs and symptoms in some hyper-reactive individuals. Wear eye goggles or face shields, 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 apply in marine and/or estuarine oil fields. Do not contaminate water when disposing of equipment washwaters.

Instructions in Case of Spills or leaks: Wear goggles or face shield, 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 authorised EPA disposal facility.

In Case of Fire: Use water, carbon dioxide, dry chemical (eg. 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.

Directions for Use

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

AIR WASHERS AND RECIRCULATING COOLING WATER SYSTEMS

This product may be used only in industrial air washer systems which have mist-eliminating components. BUSAN 1202 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 BUSAN 1202. Under these conditions, blowdown should be discounted for up to 24 hours.

INTERMITTENT (SLUG DOSE) METHOD:

Initial Dose: When the system is noticeably fouled, add 11.5–23.0 fluid ounces (100–200 ppm) of BUSAN 1202 per 1000 gallons of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 4.6–11.5 fluid ounces (40–100 ppm) of BUSAN 1202 per 1000 gallons of water in the system per day, or as needed to maintain control. Badly-fouled systems must be cleaned before treatment begins.

CONTINUOUS FEED SYSTEM:

Initial Dose: When the system is noticeably fouled, apply 11.5–23.0 fluid ounces (100–200 ppm) of BUSAN 1202 per 1000 gallons of water in the system.

Subsequent Dose: Maintain these treatments by starting a continuous feed of 4.6–11.5 fluid ounces (40–100 ppm) of BUSAN 1202 per 1000 gallons of water in the system per day. Badly-fouled systems must be cleaned before treatment begins.

HEAT TRANSFER SYSTEMS

(Evaporative Condensers, Hydrostatic Sterilizers and Retorts, and Pasterizers and Warmers)

Initial Dose: When the system is noticeably fouled, add 11.5–23.0 fluid ounces (100–200 ppm) of BUSAN 1202 per 1000 gallons of water in the system.

Subsequent Dose: Maintain these treatments by starting a continuous feed of 4.6–11.5 fluid ounces (40–100 ppm) of BUSAN 1202 per 1,000 gallons of water in the system per day. Badly fouled systems must be cleaned before treatment begins. It should be added to the system at a point of uniform mixing such as the basin area, pump area, or other reservoir or collecting areas from which the treated water will be circulated uniformly throughout the system.

OIL WELL DRILLING AND OIL FIELD PROCESS APPLICATIONS

OIL WELL WATER FLOODS

Calculate the total volume of water flood system and, using this volume, calculate the number of gallons of BUSAN 1202 needed.

Use 100–200 ppm BUSAN 1202 until control is achieved. For example, 0.09–0.18 gal BUSAN 1202 per 1000 gal floodwater will provide this dilution.

Add BUSAN 1202 as a slug or intermittently.

50 ppm of BUSAN 1202 added each week is recommended to maintain bacterial control. This may be accomplished by adding 0.05 gal of BUSAN 1202 to each 1000 gals of total volume.

DRILLING MUDS

Calculate the total volume of the drilling mud system and using this volume, calculate the number of gallons of BUSAN 1202 needed. Parts per million (ppm) levels are for total product.

Use up to 1000 ppm BUSAN 1202, depending on the severity of the bacterial contamination. For example, 3.8 gal BUSAN 1202 per 100 barrels (4200 gallons) of fluid will provide this dilution.

While the system is circulating, add the BUSAN 1202 in a thin stream.

Add additional BUSAN 1202 to maintain the proper concentration as the total volume of the system increases with the well depth.

WORKOVER FLUIDS

Calculate the total volume of the workover fluid system and, using this volume, calculate the number of gallons of BUSAN 1202 needed.

Use up to 1000 ppm of BUSAN 1202, depending on the severity of the bacterial contamination. For example, 3.8 gal BUSAN 1202 per 100 barrels (4200 gallons) of fluid will provide this dilution.

Add BUSAN 1202 into the system.

Circulate the workover fluid system until the fluid returns clear.

Shut the system down and idle for several hours.

Remove the workover fluid. This well should be ready for productive use.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS

BUSAN 1202 should be added to papermaking systems at a point of uniform mixing, such as the beaters, broke chest pump, save-all tank, or white water tank.

Initial Treatment: When the water is noticeably contaminated, add 0.5–3.0 lbs per ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily-fouled systems should be cleaned prior to initial treatment.

Subsequent Dose: When microbial control is evident add 0.3–2.0 lbs per ton to pulp or paper (dry basis) as a slug dose as necessary to maintain control.

PIGMENTS AND FILLER SLURRIES FOR 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 sufficient quantities of BUSAN 1202 to produce a concentration of 100–600 ppm by weight of the formulation slurry (1–6 lbs of product per 10,000 lbs of slurry).

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 sufficient quantities of BUSAN 1202 to produce a concentration of 100–600 ppm by weight of the formulation slurry (1–6 lbs of product per 10,000 lbs of slurry).

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 labelling, 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 authorised representative.

Storage and Disposal

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

PESTICIDE STORAGE

BUSAN 1202 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 DISPOSAL

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.

GENERAL

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

ACCEPTED

JUN 02 2004

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 1448-354

Manufactured by

Buckman Laboratories, Inc.

1256 North McLean Blvd.

Memphis, Tennessee 38108, USA

(901) 278-0330 or 1-800-BUCKMAN

EPA Est. No.	1448-TN-1
EPA Reg. No.	1448-354
Product Weight	9.4 lbs./gal. 1.13 kg/L

Net contents are marked on the container.

HMIS / NPCA Ratings

Health	3	Flammability	1	Reactivity	0

Last Revision 4/16/2004

1448-354 6/2/2004 Page 1 of 1