



ACCEPTED

FIG. 3-73  
Patents issued or pending in the U.S.A. and other countries

# BUSAN<sup>®</sup> 72

## COMPOSITION

Active ingredient:  
 2-Thiocyanomethylthio benzothiazole ..... 60 percent  
 Inert ingredients ..... 40 percent

## APPLICATION

Busan 72 is an emulsifiable microbicide concentrate used to inhibit the growth of fungi that cause the degradation of wood chips during prolonged storage and to inhibit the growth of fungi that cause the degradation of wet lap or sheet pulp, multi-layer, and chrome tanned leather. It is also employed to provide mold resistance to coated and uncoated paper and paperboard, including those grades used for soap packaging, furnace filter frames, wallpaper base stock, and building papers and paperboards.

For complete instructions on the methods of application for Busan 72, refer to the appropriate Product Data bulletins listed below:

*Busan 72 For Preservation of Wood Chips, Bag Paper, and Mill Paper and Manufacture of Mold Resistant Paper and Paperboard*

*Busan 72 A Microbicide for the Leather Industry*

Busan 72 is composed of substances that have been allowed by the U.S. Food and Drug Administration for use on the wet-end of paper and paperboard machines during the manufacture of paper and paperboard for food packaging, but it has not been allowed for use in dry end applications. Therefore, Busan 72 should not be employed to provide mold resistance to paper or paperboard intended for food contact use.

## WARNING

KEEP OUT OF THE REACH OF CHILDREN.

Harmful if swallowed. If swallowed, call a physician immediately. Give patient doses of powdered charcoal immediately or all he can swallow of raw egg whites, milk, gruel, or flour and water. Then induce vomiting with salt, soap, or mustard in warm water. May be harmful or fatal if absorbed through the skin. Workmen handling the product should wear rubber gloves and goggles and should avoid contact of the product with clothing or skin. After an exposure, wash promptly and thoroughly with an abrasive soap and cool water and finally with glycerin. In case of persistent irritation of the skin, obtain medical attention. If the product gets into the eyes, it causes eye damage; therefore, flood eyes immediately and thoroughly with cool water for 15 to 30 minutes. See a physician if eye irritation persists. Keep the drum closed when not in use.

This product is toxic to fish. Keep out of lakes, streams, or ponds. Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on this label.

Do not reuse empty drum. Return to drum conditioner or destroy it by perforating or crushing and burying in a safe place.

**MANUFACTURED BY**  
**BUCKMAN LABORATORIES, INC.**  
**MEMPHIS, TENN. 38108, U.S.A.**

EPA Reg. No. 1448-3-1A

Busan 72 is moderately toxic by ingestion in single doses and by single skin applications. The undiluted product is severely irritating to the skin and is corrosive to the eyes. Workmen handling the product should use rubber gloves and goggles and should observe other precautions shown on the label.

This product is toxic to fish. Keep out of lakes, streams, or ponds. Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on the label.

#### METHODS OF APPLICATION

Busan 72 can be dispensed directly from shipping containers by use of chemical-metering pumps or suitable measuring containers. To ensure proper coverage of the substrate to be protected, Busan 72 should be dispersed in water or surface-sizing solution prior to its application. When Busan 72 is applied by means of water showers or sprays, continuous addition of the product to the waterline supplying these showers or sprays is recommended. When batch preparation of dilute emulsions of Busan 72 is necessary, the mixture should be kept continuously agitated and should be used promptly.

##### Chip Preservation

To protect wood chips from microbiological deterioration during long storage periods, Busan 72 is used at 250 to 500 g. per metric ton (0.5 to 1.0 lb. per short ton) of oven-dry wood. Busan 72 should be applied to the wood so that the product is uniformly distributed over all exposed surfaces of the chips. One suggested method of application is through a water shower or spray located in the pneumatic-conveyor system carrying the chips from the chipper to the storage pile.

##### Pulp Preservation

For the preservation of wet lap or sheet pulp, Busan 72 is dispersed in water and applied uniformly to the exposed surfaces of the dewatered pulp by means of sprays or applicator rolls. The total amount of Busan 72 required generally ranges from 0.25 to 1.0 kg. of Busan 72 per metric ton (0.5 to 2.0 lb. of Busan 72 per short ton) of oven-dry fiber.

##### Mulch Paper Preservation

For the preservation of mulch paper Busan 72 is dispersed in water and applied uniformly to the surfaces of the mulch paper by tub-sizing methods or by means of sprays or applicator rolls. Busan 72 should be applied before the paper is coated with wax, polyethylene, or other protective materials. The amount of Busan 72 dispersion applied should be sufficient to provide a total of 0.75 to 1.25 kg. of Busan 72 per metric ton (1.5 to 2.5 lb. of Busan 72 per short ton) of air-dry paper.

##### Mold-Resistant Paper and Paperboard

For the manufacture of mold-resistant paper and paperboard, Busan 72 is employed at rates equivalent to 125 g. to 500 g. of Busan 72 per metric ton (0.25 to 1 lb. of Busan 72 per short ton) of paper and paperboard produced per side treated. For coated paper or paperboard, the required amount of Busan 72 should be incorporated into the coating mix prior to application of the coating; the amount of Busan 72 added will depend on the weight of coating applied to each ton of paper or paperboard. For uncoated paper or paperboard, Busan 72 should be dispersed in water or a surface-sizing solution, such as starch, carboxymethylcellulose, poly(vinyl alcohol), or wax emulsion, and applied to the surface to be protected by means of a water box at the machine calender stacks. The amount of Busan 72 added to the surface-sizing solution will depend on the rate the solution is transferred to the paper or paperboard.

*Recommendations given in this bulletin are based on tests believed to be reliable. However, the use of the product is beyond the control of Buckman Laboratories, Inc., and no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from misuse of the product as such, or in combination with other materials. This bulletin is not to be taken as a license to operate under or recommended to infringe any patent.*

## APPLICATION

Because of the moist condition and pH of the stock, chrome-tanned stock held "in the blue" readily molds and becomes discolored with the result that additional cleaning is required. Severe mold growth at this stage will usually cause permanently discolored areas that influence subsequent finishing operations and reduce the value of the leather. Busan 72 added to the chrome liquor in the amount of 200 to 300 g. per metric ton (0.2 to 0.3 lb. per 1,000 lb. of stock) is effective for controlling mold growth on chrome-tanned stock. A more effective method of application consists of uniformly applying the required amount of Busan 72 in the form of a 5 percent dispersion in water. This dispersion should be prepared by adding Busan 72 to vigorously agitated water. It can then be applied to the stock as a uniform spray application or preferably by means of an applicator roll.

*Recommendations given in this bulletin are based on tests believed to be reliable. However, the use of the product is beyond the control of Buckman Laboratories, Inc., and no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from misuse of the product as such, or in combination with other material. This bulletin is not to be taken as a license to operate under or recommendation to infringe any patent.*

Printed in U.S.A.