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Systems Integration Group, Inc.

BUSAN 52

BUSAN is a registered trademark.

**KEEP OUT OF REACH OF CHILDREN
DANGER**

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER: Corrosive. Causes eye and skin damage. Harmful or fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly after handling. Avoid contamination of food.

STATEMENT OF PRACTICAL TREATMENT (FIRST AID): In case of skin contact, wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. If product gets in the eyes, flush immediately with copious amounts of clean, cool water for at least 15 minutes. Get medical attention immediately. If swallowed, call a physician or Poison Control Center. **DO NOT INDUCE VOMITING.** Rinse mouth with copious amounts of water or milk, and then give 1 or 2 glasses of water or milk to drink. Avoid alcohol. Note to physician: Probable mucosal damage may contraindicate gastric lavage.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with 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 sewage systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

STORAGE AND DISPOSAL

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

STORAGE: Do not stack more than five drums high. Drums should be opened in well-ventilated areas. Leaking or damaged drums should be placed in overpack drums for disposal. Spills should be absorbed in sawdust or sand and disposed of in a sanitary landfill. Keep container closed when not in use.

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 your 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.

DIRECTIONS FOR USE

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

Busan 52 can be dispersed directly from the shipping container by means of a chemical metering pump or suitable measuring containers. It should be mixed thoroughly with the material to be protected in a manner that will ensure uniform distribution of the microbicide. If necessary for uniform distribution, it can be diluted with water to any desired lower concentration. Dilute solutions of Busan 52, however, should be used on the same day they are prepared.

Busan 52 is used in pulp and paper mills (1) to control bacterial and fungal slime; (2) to inhibit the growth of bacteria that cause the degradation of papermaking chemicals such as animal glue solutions, clay slurries, starch solutions and slurries, and coating formulations.

SLIME CONTROL IN PULP AND PAPER MILLS: For controlling bacterial and fungal slime in pulp and paper mill systems, Busan 52 is employed at 125 to 500 g per metric ton (0.25 to 1 lb. per short ton) of pulp or paper produced. Addition may be made continuously or intermittently to the stock or white water as needed to control the growth of microorganisms. As a general rule, intermittent treatment at the specified rates for periods of 2 to 6 hours out of each 8, each 12, or each 24 hours is recommended. The concentrations of Busan 52 and the frequency of treatment should be adjusted higher or lower according to the rate of slime accretion. **Furnish:** For treatment of microbiologically contaminated furnish, Busan 52 is added to the system at a rate of 0.1 kg of Busan 52 per metric ton (0.2 lb. per short ton) of furnish to each beater or pulper. **Broke and Slush Pulp Treatment:** For uncoated broke, add 0.1 to 0.2 kg of Busan 52 per metric ton (0.2 to 0.4 lb. per short ton), and for coated broke add 0.3 kg of Busan 52 per metric ton (0.2 to 0.6 lb. per short ton). **Pulp Storage:** Pulp that may be held in storage for 8 hours to 1 week should be treated with 0.1 to 0.3 kg of Busan 52 per metric ton (0.2 to 1.0 lb. per short ton) of moisture-free pulp. The Busan 52 should be added in a manner that will ensure uniform distribution throughout the mass of pulp moving to storage. **Fresh Water:** For microbiologically contaminated fresh water Busan 52 may be used at concentrations of 1 to 4 parts per million for treatment periods of four hours out of each eight hours in the place of chlorine or other oxidants. Busan 52 should not be added to water used for drinking or bathing. **PRESERVATION OF PAPERMAKING CHEMICALS:** BUSAN 52 can be used to inhibit the growth of bacteria that cause the microbiological degradation of papermaking chemicals. The required amount of Busan 52 should be added in such a manner as to ensure uniform distribution throughout the substrate to be protected. The table below shows the amounts of Busan 52 recommended for the preservation of various substrates; the pH shown is the maximum pH reached during processing and storage of the material. The concentrations are based on the total wet weight of slurry, emulsion, or solution to be protected as parts per million Busan 52 per million parts of substrate (weight/weight).

Recommended Concentration of Busan 52 for Preservation of Papermaking Chemicals

Substrate	pH below 7	pH above 7
	ppm	ppm
Animal glue solutions	75-150	150
Clay slurries, phosphate-dispersed	50-100	100
Coating formulations, protein binders	150-400	400
starch binders	50-150	150
Starch slurries and solutions	50-150	150

Note: Busan 52 is composed of substances that have been allowed for use in the manufacture of paper and paperboard under U.S. Food and Drug Administration Regulation 176.300.

Busan 52 is used to inhibit the growth of bacteria and fungi that cause the degradation of cellulosic solutions, such as hydroxyethyl cellulose solutions, and to inhibit the growth of bacteria that cause degradation in water-thinned paints, emulsion resins, and cutting oils.

PROTECTIVE COLLOIDS: Enzymes resulting from the growth of certain fungi and bacteria in water-thinned cellulosic protective colloids such as hydroxyethyl cellulose solutions cause a loss in viscosity of these solutions. Busan 52 has demonstrated effectiveness in controlling this microbiological growth and thereby provides viscosity stability for the protective colloid. Concentrations of 0.05 to 0.2 percent of Busan 52 based on the total weight of the solution are suggested for preservation; the exact concentration to be used will depend on the particular system, amount of microorganism contamination, and the degree of protection desired.

EMULSION RESINS AND WATER-THINNED PAINTS: Enzymes produced by bacteria can also cause loss of viscosity in emulsion resins. Busan 52 at 0.05 to 0.2 percent based on the weight of the emulsion has shown effectiveness as a preservative for both acrylic and polyvinyl acetate emulsion resins. Such emulsion resins are commonly used for the manufacture of emulsion paints, adhesives, waxes, and polishes; and these finished products can also be preserved by the use of

Potassium N-methyl
INERT INGREDIENT

Busan 52. Concentrations of 0.05 to 0.2 percent are employed in the latter applications. **CUTTING FLUIDS:** Busan 52 can be used in cutting oils or fluids. Concentrations of 0.05 to 0.2 percent and cutting fluid are recommended, and the amount of Busan 52 are obtained when the cutting oil or fluid is used at no greater than 5-week intervals.

WATER-BASED DRILLING, COMINGLING: Busan 52 can be used to inhibit the growth of fungi and bacteria and other water-based drilling fluids for these purposes Busan 52 is added to the fluid at a rate of 0.1 to 0.2 percent.

LEATHER MANUFACTURE: Busan 52 can be used to inhibit the growth of fungi and bacteria in the tanning of leather. Busan 52 is used at treatment rates of 0.1 to 0.2 percent of the weight of the green hides and added to the glue at rates of 100 to 200 parts per million.

Technical assistance in applying Busan 52 should be obtained upon request when a description of the problem is available.

**HMS/NPCA RA
Health 3 Flammability 2**

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