BUSAN 1146

BUSAN is a registered trademark.

ACTIVE INGREDIENT(S)	
2-(Thiocyanomethylthio)benzothiazole	4.0%
2-Bromo-4'-hydroxyacetophenone	7.6%
Related brominated compounds	2.4%
INERT INGREDIENTS	86.0%
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

DANGER: Corrosive. Causes eye damage. Do not get into eyes. Fatal if inhaled, harmful if swallowed or if absorbed through the skin, causes eye and skin irritation. This product may cause allergic skin reactions. Workmen handling the product should wear rubber gloves and goggles and should avoid contact of the product with clothing or skin.

ENVIRONMENTAL HAZARDS: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other 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 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 in a manner inconsistent with its labeling.

PULP AND PAPER MILLS: BUSAN 1146 is used in pulp and paper mills to control bacterial and fungal slime. It is also used to inhibit the growth of bacterial and fungi that cause the microbiological degradation of papermaking chemicals. For slime control in pulp and paper mill systems, BUSAN 1146 is used at concentrations of 80 to 400 ppm, based on total weight of fiber and water at maximum dilution. The addition should be made at a location where good mixing and agitation will ensure uniform distribution of BUSAN 1146 in the mass of fiber and water. Best results are generally obtained by feeding BUSAN 1146 into the suction side of the fan pump or into white water or stock moving to the fan pump. When necessary, this treatment can be supplemented by treatment of fresh water, slush pulp, broke, or other furnish components with BUSAN 1146 or another one of the broad-spectrum BUSAN microbiocides. Before treatment with BUSAN 1146 is started, the systems should be cleaned thoroughly to remove old deposits of slime, pitch, scale, etc., and cleaning of the system should be repeated periodically in order to get the best results from use of the microbiocide. Cleaning procedures used should include both mechanical cleaning with high pressure hoses and other mechanical devices and, if possible, circulation of a hot chemical cleaning solution to all parts of the system.

FRESH WATER TREATMENT: BUSAN 1146 can be used to supplemental or replace chlorine in the treatment of process fresh water. In treating fresh water, BUSAN 1146 is usually employed at concentrations of 1 to 8 ppm. BUSAN 1146 should not be added to water used for drinking or bathing.

PRESERVATION OF SLUSH PULP, WET LAB PULP, RECYCLED FIBER, or BROKE: Pulp stored at either high or low consistency requires treatment with a microbiocide to prevent it from spoiling as the result of the growth of microorganisms. This may be slush pulp produced in the mill, wet lap pulp shipped to or from another mill, either virgin pulp, or recycled pulp. This also may be broke produced in the mill. Such pulp that may be held in storage should be treated with 0.2 to 1.0 kg of BUSAN 1146 per tonne (0.4 to 2.0 lb per ton) of moisture-free pulp. The BUSAN 1146 should be added in a manner that will ensure uniform distribution throughout the mass of pulp moving to storage.

PRESERVATION OF PAPERMAKING CHEMICALS: BUSAN 1146 can be used to inhibit the growth of bacteria and fungi that cause the microbiological degradation of papermaking chemicals. The required amount of BUSAN 1146 should be added in such a manner as to ensure uniform distribution throughout the substrate to be protected. The following table shows examples of papermaking chemicals that might be treated with BUSAN 1146, and the amount of BUSAN 1146 recommended for preservation of some of these materials. The treatment levels are based on the total wet weight of slurry, emulsion, or solution to be protected.

Substrate:	Parts per million:
Alum solutions	100-200 ppm
Animal glues	100-300 ppm
Clay slurries, phosphate dispersed	100-200 ppm
Coating formulations, protein binders	200-800 ppm
Coating formulations, starch binders	200-400 ppm
Starch slurries and solutions	100-300 ppm

COOLING WATER SYSTEMS: For the control of bacteria in industrial and commercial recirculating cooling water systems, BUSAN 1146 should be fed at a rate of 1.3 to 13 fl. oz. (10 to 100 ppm) per 1,000 gallons of systems water. This dosage should be repeated every 1 to 5 days as needed. If the system is badly fouled, it should be cleaned to remove old deposits before treatment with BUSAN 1146 is begun.

PETROLEUM SECONDARY RECOVERY: BUSAN 1146 is used to control both aerobic and anaerobic bacteria in oil field water, water disposal systems, and other oil field water systems. BUSAN 1146 may be fed continuously, intermittently or by slug addition. Addition should be made to injection wells, free water knockouts, filtration s stems, production wells and at other locations subject to bacterial fouling and corrosion.

CONTINUOUS FEED: BUSAN 1146 may be fed continuously at a level of 0.65 to 6.3 fl. oz. per 1,000 gallons or 26.5 to 265 fl. oz. per 1,000 bbls of produced water (5 to 50 ppm).

INTERMITTENT FEED: BUSAN 1146 may be fed intermittently at a level of 0.65 to 10.0 fl. oz. per 1,000 gallons or 26.5 to 424 fl. oz. per 1,000 bbls of produced water (5 to 80 ppm) 4 to 8 hours per day.

SLUG FEED: Where intermittent or continuous feed is not desirable, BUSAN 1146 may be fed at a dosage of 1.3 to 12.6 fl. oz. per 1,000 gallons or 53 to 530 fl. oz. per 1,000 bbls of produced water (10 to 100 ppm). Dosage should be repeated every 1 to 7 days as needed.

DRILLING FLUIDS: To inhibit bacterial degradation of drilling fluids and muds, BUSAN 1146 should be applied at a rate of 0.1 to 0.8% based upon the total weight of the fluid.

ACCEPTED

JUN 15 2004

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 1448-383

Storage and Disposal

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

PESTICIDE STORAGE: Do not expose to extreme temperatures. 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.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. 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, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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.	1448-383
Product Weight	8.6 lbs/gal 1.03 kg/L

Net contents are marked on the container.

HMIS / NPCA Ratings

Health 3 Flammability 2 Reactivity 1

Last Revision 4/20/2004

1448-383

06/15/2004

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