

**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 systems, 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 255 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.

4.0%

.6%  
1%

usal

isposal.

to not stack more than five drums  
as. Leaking or damaged drums  
s should be absorbed in sawdust

z. Improper disposal of excess  
federal Law. If these wastes cannot  
, contact your State Pesticide or  
aste representative at your EPA

nt). Then offer for recycling or  
any landfill, by incineration, or, if  
med, stay out of smoke.

ED  
ungicide, and  
or the  
3 83

ries, Inc.  
38108, USA  
UCKMAN

Net contents are marked on  
the container.

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