

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

9 SEP 1993

Ms. Shaun L. Helmhout  
Buckman Laboratories International, Inc.  
1256 N. McLean Boulevard  
Memphis, TN 38108

Dear Ms. Helmhout:

Subject: Busan 77  
EPA Registration No. 1448-42  
Your Amendment of February 5, 1988

Your amendment request to expand the use pattern of the subject product labeling to include a molluscicide claim for use in once-through cooling water systems has completed review. The following comments are a result of our review.

- The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below. A stamped copy is enclosed for your records. Five copies of the finished labeling must be submitted before you release the product for shipment.

1. Replace the Environmental Hazards statement on the product label with the following statement:

"This product is highly toxic to fish and aquatic invertebrates. 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."

CONCURRENCES							
SYMBOL	H1805						
SURNAME	Diagonal						
DATE	9 SEP 1993						

If you should have any questions concerning this letter, you may call Robert Travaglini on (703) 305-6909.

Sincerely,

A handwritten signature in cursive script, appearing to be 'R. Douglas', enclosed within a circular flourish.

Ruth G. Douglas  
Product Manager (32)  
Antimicrobial Program Branch  
Registration Division (H7504C)



# BUSAN® 77

ACCEPTED  
with COMMENTS  
in EPA Letter Date

9 SEP 1980

## ACTIVE INGREDIENT:

Poly(oxyethylene(dimethyliminio)ethylene-  
(dimethyliminio)ethylene dichloride) ..... 60.0%

INERT INGREDIENTS ..... 40.0%

EPA REG. NO. 1448-42

This product contains 5.76 lb. of active ingredient per gallon and weighs 9.6 lb. per gallon.

## CAUTION

KEEP OUT OF REACH OF CHILDREN

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Avoid breathing vapors. Avoid contact with skin, eyes, or clothing.

**FIRST AID:** If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution, or, if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish. Do not discharge into lakes, streams, ponds, or public waters unless in accordance with an NPDES permit. For guidance, contact the regional office of the Environmental Protection Agency.

## STORAGE AND DISPOSAL

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

**STORAGE:** Do not stack more than four drums high. 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:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**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.

Fungicide, and Rodenticide  
amended, for the p  
registered under EPA F  
**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Busan 77 is used to control the growth of algae in swimming pools, hot tubs, and hot baths. Busan 77 is used to control the growth of algae in swimming pools, whirlpools, and hot baths. It is also used to control algae, bacteria, fungi, and protozoa in industrial process water systems and to inhibit the growth of bacteria that cause corrosion in the bulletin *Busan 77—A Broad Spectrum Microbicide Concentrate* for disinfecting and cutting fluid applications.

Prior to the use of Busan 77 in water cooling towers, systems should be cleaned of microbiological slime, and other deposits. Then make an initial slug addition of 3.33 to 5.55 fluid ounces of Busan 77 per 1000 gallons of water to provide 8 to 20 ppm Busan 77, based on the initial dosage until control is evident. Make subsequent slug additions of 2.25 to 5.55 fluid ounces of Busan 77 (2 to 20 ppm Busan 77) every 2 to 5 days or as needed. The relative amount of bleedoff and the severity of the microbiological problem in the water cooling towers. To control mollusks such as *Corbicula* spp. in cooling water and industrial systems, add Busan 77 at dosage rates of 2 to 5 fluid ounces continuously or intermittently to the intake water. Continuous addition is recommended. Intermittent feeding is used to maintain control.

Busan 77 is used to control bacteria in industrial air washing systems. Prior to its use, systems should be cleaned to remove bacteria. Add a dose of 3.33 to 5.55 fluid ounces of Busan 77 per 1000 gallons of water until control is evident. Subsequent slug additions of 2.25 to 5.55 fluid ounces should be employed each 1 to 5 days, or as needed. The frequency of addition should be based on bleedoff and severity of the bacterial problem. Slug additions may be made at intervals of the airwash system.

For maximum effectiveness of Busan 77 in swimming pools, hot tubs, and hot baths, those with heavy growths of algae should be cleaned prior to treatment. For visible algae growth, add an initial dose of 11 to 17 fluid ounces of Busan 77 per 1000 gallons of water. For treatment of a freshly cleaned and filled pool, add 1.0 to 2.0 fluid ounces of Busan 77 per 1000 gallons of water. To maintain pools free of visible algae, add 0.2 to 0.5 fluid ounces of Busan 77 per 1000 gallons of water should be made at a point to ensure uniform distribution.

Uniform distribution of Busan 77 throughout the water in the pool is essential. Busan 77 is compatible with those chemicals normally used to treat pools. Busan 77 can be used in pools treated with chlorine chemicals and normally required. However, do not mix Busan 77 with concentrated disinfectants.

Busan 77 is used to control the growth of algae in decorative fountains. Heavy growths of algae should be manually cleaned prior to treatment. For growth require an initial dose of 1.0 to 2.0 fluid ounces of Busan 77 per 1000 gallons of water. For a freshly cleaned and filled fountain, add 0.5 to 1.5 fluid ounces of Busan 77 per 1000 gallons of water. For maintenance, add 0.2 to 0.5 fluid ounces of Busan 77 per 1000 gallons of water should be made at a point to ensure uniform distribution.

Busan 77 should be made at a point to ensure uniform distribution in ponds treated with chlorine chemicals, but do not mix Busan 77 with concentrated disinfectants.

Busan 77 will retard microbial growth that causes degradation of cornstarch. Busan 77 is added at a rate of 25 to 250 ppm based on the total weight of cornstarch. The necessary to retard spoilage of the starch will vary with the extent of cornstarch and length of storage. NOTE: Do not use in paper and paperboard that will

**BEST AVAILABLE COPY**

**BUCKMAN LABORATORIES, INC.**

1256 N. McLEAN BLVD., MEMPHIS, TENN. 38104  
EPA ESTABLISHMENT NO. 1448-TN-1

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