



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 26 2011

Ms. Crystal W. Brown, MS
Regulatory Affairs Specialist for,
1256 North McLean Blvd.
Memphis, TN 38108-1241

Subject: Busan 1078
EPA Registration Number 1448-348
Your Amendment Dated February 26th, 2011
EPA Received Date March 3rd, 2011

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, FIFRA, as amended, to add the statement, "Not registered for this use in California" for the following uses; Reverse Osmosis Systems, Conveyor Lubricants and Fuel Preservation, is acceptable.

A stamped copy of the labeling is enclosed.

If you have questions concerning this letter, please contact Karen M. Leavy at (703)-308-6237.

Sincerely,

A handwritten signature in black ink that reads "Marshall Swindell".

Marshall Swindell
Product Manager 33
Regulatory Management Branch I
Antimicrobials Division(7510P)

BUSAN[®] 1078

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ACCEPTED
with COMMENTS
EPA Letter Dated:

MAY 26 2011

ACTIVE INGREDIENT(S):	
5-Chloro-2-methyl-4-isothiazolin-3-one	1.11%
2-Methyl-4-isothiazolin-3-one	0.39%
INERT INGREDIENTS:	<u>98.50%</u>
TOTAL	100.00%

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
manufacturer for the pesticide,
registered under EPA Reg. No. 1448-348

KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO

FIRST AID	
If in Eyes	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Call a 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 a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If Inhaled	<ul style="list-style-type: none"> • 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 901-767-2722 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 and skin burns. May cause allergic skin reaction. Harmful if inhaled. Harmful if swallowed. Do not get in eyes, on skin, on clothing. Mixers, loaders and others exposed to this product must wear: long-sleeved shirt and long pants; chemical resistant gloves such as nitrile or butyl rubber; shoes plus socks; goggles and face shield; and chemical resistant apron. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly. This product may cause skin sensitization reactions in some people.

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ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and wildlife. Do not discharge effluent containing this product into lakes streams, ponds, estuaries, oceans, or public 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. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this pesticide only as specified on the label.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: This product is corrosive to mild steel. Do not store or transport in unlined metal containers.

PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide 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 of the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

(TEXT FOR ALL NONREFILLABLE CONTAINERS)

NONREFILLABLE CONTAINERS: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. **Plastic Containers:** May be incinerated, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **Metal Containers:** Must not be incinerated. Do not cut or weld on or near metal containers.

Liquid residue removal statement for nonrefillable containers with capacity of 5 gals or less: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container half full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for the later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Liquid residue removal statement for nonrefillable containers with capacity of >5 gals: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container half full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

(TEXT FOR ALL NONREFILLABLE CONTAINERS)

Then offer for recycling if available or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities by burning. If burned, stay out of smoke.

(TEXT FOR ALL REFILLABLE CONTAINERS)

REFILLABLE CONTAINERS. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

ACCEPTED
with COMMENTS
EPA Letter Dated:
MAR 26 2004
Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended for the pesticide,
registered under EPA Reg. No. 1448-348

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For containers larger than 55 gallons: To clean the container prior to refilling or disposal, use a pressure wash as follows: Empty the remaining contents into application equipment or a mix tank. Use a pressure wash system that rinses all interior sides with water and that is rated at >40 psi and >120°F. Pressure wash the container for a length of time that ensures that a minimum 25% of the container volume of water is used. During the pressure wash, ensure that the container valve is left open for continuous draining. Collect the rinsate and empty into application equipment or a mix tank or store rinsate for later use or disposal. Allow container to drain for 10 minutes after pressure wash is completed.

For containers 55 gallons and smaller: To clean the container prior to refilling or disposal, use a triple rinse wash as follows: Empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously. Pour or pump rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this rinsing procedure two more times.

Do not discharge rinsate containing this product 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 rinsate containing this product to sewer systems without prior approval from the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

GENERAL: CONSULT FEDERAL, STATE, OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES.

ACCEPTED FOR APPROVED
with COMMENTS
EPA Letter Dated:

GENERAL PRECAUTIONS AND RESTRICTIONS

Do not apply this product in a way that will contact workers or other persons.

MAY 26 2011

Batch code: _____

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 1448-34

DIRECTIONS FOR USE

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

PAPER MILLS: Busan 1078 is recommended for the control of bacteria and fungal slime in the production of paper. **POINT OF ADDITION:** Busan 1078 should be added to a point in the system to insure uniform mixing such as the Beater, Hydropulper or Fan and Broke Storage Pumps. **DOSAGE:** Apply 0.44 to 1.5 lbs. (7 to 23 fluid ounces) of Busan 1078 per ton (dry basis) of pulp and paper produced as a slug dose. If needed, repeat daily. Badly fouled systems should be cleaned before initial treatment.

PAPER COATING PRESERVATION: Busan 1078 is recommended as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper coatings. Add 0.43–1.65 lbs of Busan 1078 (195–750 g) to each 1,000 lbs (454 kg.) of fluid to provide 425 to 1,675 ppm (6.25 to 25 ppm active isothiazolones).

INDUSTRIAL RECIRCULATING WATER COOLING TOWERS: For the control of bacteria, algae and fungi, add Busan 1078 microbicide to the tower basin, distribution box, or some other point to insure uniform mixing. *Initial Dose:* When the system is noticeably fouled, apply 148 to 883 ppm Busan 1078 microbicide (1.26 to 7.46 pounds or 19 to 113 fluid ounces of Busan 1078 per 1,000 gallons of water in the system). Repeat until control is achieved. *Subsequent Dose:* When microbial control is evident, add 35 to 219 ppm Busan 1078 microbicide (0.3 to 1.86 pounds or 4.5 to 28 fluid ounces of Busan 1078 per 1,000 gallons of water in the system) weekly or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

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AIR WASH SYSTEMS: Add to the air washer sump or chill water sump, to insure uniform mixing, 35 to 883 ppm Busan 1078 microbicide (0.3 to 7.46 pounds or 4.5 to 113 fluid ounces of Busan 1078 per 1,000 gallons of water in the system) depending upon the severity of contamination to control bacteria, fungi, and algae which cause fouling in industrial air washer systems. INTERMITTENT OR SLUG METHOD – *Initial Dose:* When the system is noticeably fouled, apply 148 to 883 ppm Busan 1078 microbicide (1.26 to 7.46 pounds or 19 to 113 fluid ounces of Busan 1078 per 1,000 gallons of water in the system). Repeat until control is achieved. *Subsequent Dose:* When microbial control is evident, add 35 to 219 ppm Busan 1078 microbicide (0.3 to 1.86 pounds or 4.5 to 28 fluid ounces of Busan 1078 per 1,000 gallons of water) weekly or as needed to maintain control. CONTINUOUS FEED METHOD – *Initial Dose:* When the system is just noticeably fouled, apply 148 to 883 ppm Busan 1078 microbicide (1.26 to 7.46 pounds or 19 to 113 fluid ounces of Busan 1078 per 1,000 gallons of water in the system). *Subsequent Dose:* Maintain this treatment level by adding a continuous feed of 35 to 219 ppm Busan 1078 microbicide (0.3 to 1.86 pounds or 4.5 to 28 fluid ounces of Busan 1078 per 1,000 gallons of makeup water). Badly fouled systems must be cleaned before initial treatment. NOTE: For use only in industrial air washing systems that maintain effective mist eliminating components.

INDUSTRIAL RECIRCULATING CLOSED LOOP WATER COOLING SYSTEMS: For the control of bacteria, algae, and fungi, add Busan 1078 microbicide to the reservoir, recirculating line, or some other point in the system to insure uniform mixing. *Initial Dose:* When the system is noticeably fouled, apply 148 to 883 ppm Busan 1078 microbicide (1.26 to 7.46 pounds or 19 to 113 fluid ounces of Busan 1078 per 1,000 gallons of water in the system). Repeat until control is achieved. *Subsequent Dose:* When microbial control is evident, add 35 to 219 ppm Busan 1078 microbicide (0.3 to 1.86 pounds or 4.5 to 28 fluid ounces of Busan 1078 per 1,000 gallons of water in the system) weekly or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

POLYMER LATEX PRESERVATION: Busan 1078 microbicide is recommended for the control of bacteria and fungi in the manufacture and storage of synthetic and natural polymer latices including; styrene/butadiene; carboxylated styrene/butadiene; ethylene/vinyl acetate, and biopolymers intended for industrial use, such as xanthum gum, gum arabic, guar gum, protein-derived polymers, starches, and casein-derived polymer. Add 0.43–3.3 lbs. of Busan 1078 1.5% microbicide (195 g–1.5 kg) to each 1,000 lbs. (454 kg) of emulsion to provide 425 to 3,350 ppm product (6.25 to 50 ppm active isothiazolones). NOTE: To insure uniform mixing, add Busan 1078 microbicide to latex or solutions slowly with agitation. The actual concentrations required will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected, and level of protection required.

ADHESIVE AND TACKIFIER PRESERVATION: Busan 1078 microbicide is recommended as an in-container preservative for the control of bacteria and fungi in water-soluble and water-dispersed adhesives such as animal glues, vegetable glues, natural rubber latices, polyvinyl acetate, styrene-butadiene, and acrylic latices. Busan 1078 microbicide is recommended as a preservative for tackifiers derived from resin and hydrocarbon resins. Add 0.43–1.65 lbs of Busan 1078 1.5% microbicide (195–750 g) to each 1,000 lbs (454 kg) of fluid to provide 425 to 1,675 ppm product (6.25 to 25 ppm active isothiazolones).

PAINT AND COATINGS PRESERVATION: Busan 1078 microbicide is recommended as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper and wood coatings and paints used for architectural product finishes, and special purpose coatings. Add 0.43–1.65 lbs. of Busan 1078 microbicide (195–750 g) to each 1,000 lbs. (454 kg) of fluid to provide 425 to 1,675 ppm product (6.25 to 25 ppm active isothiazolones).

ACCEPTED
with COMMENTS
EPA Letter Dated:

MAY 26 2011

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BUILDING MATERIAL PRESERVATION: Busan 1078 microbicide is recommended as an in-container preservative for the control of bacteria and fungi in building material such as mastics, caulks, joint cement, spackling, and grouting. Add 0.43–1.65 lbs. of Busan 1078 microbicide (195–750 g) to each 1,000 lbs. (454 kg) of fluid to provide 425 to 1,675 ppm product (6.25 to 25 ppm active isothiazolones).

DISPERSED PIGMENT PRESERVATION: Busan 1078 microbicide is recommended for the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as kaolin clay, montmorillite clay, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate, and kieselguhr used in paint and paper production. Add 0.43–1.65 lbs. of Busan 1078 microbicide (195–750 g) to each 1,000 lbs. (454 kg) of fluid to provide 425 to 1,675 ppm product (6.25 to 25 ppm active isothiazolones).

REVERSE OSMOSIS SYSTEMS: Busan 1078 may be used to control microbiological fouling in reverse osmosis systems used for process water and other non-potable applications. Busan 1078 should be fed to the membrane feedwater at a rate of 20–120 ppm (2.75–16.5 fluid ounces per 1,000 gallons of water). The product should be added continuously for a time period of 1–24 hours, 1–7 days each week depending on the severity of the problem. For off-line cleaning, Busan 1078 should be added to provide a level of 100–400 ppm (13.75–55 fluid ounces per 1,000 gallons) in the soak solution. **Not registered for this use in California.**

COMMERCIAL PHOTOPROCESSING SYSTEM PRESERVATION: Busan 1078 is recommended to prevent slime formation or accumulation in filters and ion exchange resin tanks of commercial photoprocessing systems. For the maintenance of a non-fouled system, use Busan 1078 at 32–64 fluid ounces (2.1 lbs.–4.2 lbs.) per 1,000 gallons water in the system once weekly, or as needed, to maintain control of slime. For a noticeably fouled system, use an initial dose of 64–154 fluid ounces (4.2 lbs.–10 lbs.) per 1,000 gallons water to be followed by subsequent maintenance dosage. A high dosage range and/or increased frequency of treatment may be required depending upon rate of dilution of preservative with makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc. The preservative should be dispensed into the final rinse or used water collection tank.

CONVEYOR LUBRICANTS: Busan 1078 can be used to control microorganisms in water-based conveyor lubricants. Busan 1078 can either be added to the lubricant concentrate or can be added to the lubricant dilution feed line using a chemical metering pump. In lubricant concentrates, Busan 1078 should be added at a level that will insure a final use dilution of 200–1000 ppm of Busan 1078 (3–15 ppm active). When fed to the lubricant dilution feed line, an initial metered dose of 50–126 fluid ounces of Busan 1078 per 1,000 gallons of diluted conveyor lubricant is recommended until control is achieved. A subsequent metered dose of 26–126 fluid ounces per 1,000 gallons should be made to maintain 3–15 ppm active Busan 1078 in the diluted conveyor lubricant. **Not registered for this use in California.**

FUEL PRESERVATION: Busan 1078 is recommended for the control of bacteria and fungi in the following liquid hydrocarbon fuels and oils: crude oils, aviation fuels, kerosene, heating oils, diesel fuels, residual fuel oils, coal slurries, liquified petroleum gases, and petrochemical feedstocks. *Method of Addition:* Busan 1078 should be directly dispersed into a fuel tank storage tank or a flowing stream of fuel in a manner to insure uniform distribution of the preservative in the fuel system. Slug dose or continuous feed methods are recommended. *Curative Dose:* When the system is noticeably fouled, add 1–2 gallons Busan 1078 per 10,000 gallons of fluid in the system. This will provide 100 to 200 ppm of Busan 1078 and 1.5–3.0 ppm active ingredient. Repeat until control is achieved. A shock dose of up to 4 gallons of Busan 1078 per 10,000 gallons of fluid is recommended in the case of extreme contamination. Grossly contaminated systems should be physically cleaned to remove debris.

ACCEPTED
WITH COMMENTS
LPA Letter Dated:
MAY 26 2011

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended for the pesticide,
registered under EPA Reg. No. 448-348

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Maintenance Dose: When the system is noticeably fouled, add 0.5 to 1.5 gallons of Busan 1078 per 10,000 gallons of fluid to maintain the system. This will provide 50 to 150 ppm of Busan 1078 and 0.75–2.25 ppm active ingredient. Repeat every 4–6 weeks or when microbial contamination is detected.

FOR USE IN AVIATION FUEL, THE FEDERAL AVIATION ADMINISTRATION MUST BE CONSULTED AS TO THE ACCEPTABILITY OF THE ADDITIVE FOR USE IN SPECIFIC ENGINES AND/OR AIRCRAFT. **Not registered for this use in California.**

ACCEPTED
with COMMENTS
EPA Letter Dated:

MAY 26 2011

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
... for the pesticide,
... registered under EPA Reg. No. 1448-348

Manufactured by:

Buckman Laboratories, Inc.

1256 N. McLean Blvd., Memphis, Tennessee 38108, U.S.A.
(901) 278-0330 or 1-800-282-5626

EPA Est. No. 1448-TN-1

EPA Reg. No. 1448-348

Product Weight

8.4 lbs/gal 1.02 kg/l

NET CONTENTS MARKED ON CONTAINER

HMIS/NPCA RATING

Health 3 Flammability 0 Reactivity 0

Revised: 03/08/10