

3876-151

1/23/2014

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

JAN 23 2014

Ms. Lynne Hall  
Manager of the Biocide Programs for,  
GE Betz, Inc.  
4636 Somerton Road  
Trevose, PA 19053

Subject: Betz DE-5556  
EPA Registration Number 3876-151  
Your Amendment Dated October 24<sup>th</sup>, 2013  
EPA Received Date October 25, 2013

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, FIFRA, as amended, to increase the nominal concentration of one of the active ingredients as per our letter of October 21, 2013, is acceptable.

The Confidential Statement of Formula dated October 24, 2013 for the basic formulation is acceptable and supersedes previous the basic formulation. The proposed amendment is acceptable.

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

Sincerely,

A handwritten signature in cursive script that reads "Karen Leavy Munk".

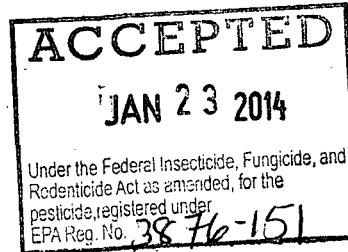
Marshall Swindell  
Product Manager 33  
Regulatory Management Branch I  
Antimicrobial Division (7510P)



**BETZ DE-5556**  
Slime Control Agent

ACTIVE INGREDIENT:

2-Bromo-2-nitropropane-1,3-diol .....	5.5 %
5-Chloro-2-methyl-4-isothiazolin-3-one ...	1.9 %
2-Methyl-4-isothiazolin-3-one .....	0.68%
INERT INGREDIENTS: .....	91.92%
TOTAL .....	100.00%



CONTENTS: LIQUID

POUNDS PER GALLON: 9.2 (70°F)

EPA REGISTRATION NUMBER: 3876-151  
EPA ESTABLISHMENT NUMBER: 3876-XX-XX

**Keep Out of Reach of Children**

**DANGER PELIGRO**

**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 treatment advice.

If swallowed: 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 on skin or clothing: 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 inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-877-1940 for emergency medical treatment information.





PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER PELIGRO**

**DANGER Corrosive.** Causes irreversible eye damage. Causes skin burn. May be fatal if inhaled. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Do not breathe spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment (PPE): Applicators and all other handlers must wear: Coveralls over long-sleeved shirt and long pants. Socks and chemical resistant footwear. Goggles or face shield. Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton. Respirator with an organic vapor removing cartridge with a pre filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic organisms. 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.

**User Safety Recommendations**

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. User should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STORAGE AND DISPOSAL**

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

**PESTICIDE STORAGE:** Keep container tightly closed. Store in a cool, dry well-ventilated place. Do not store at elevated temperatures.



**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 the nearest 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 incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Turn the container over onto its other 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.

**CONTAINER DISPOSAL:** Refillable container. 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. To clean the container before final disposal, 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 or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### **DIRECTIONS FOR USE**

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

This product is effective for the control of bacterial, fungal and algal slimes in recirculating water systems, air washer systems that maintain effective mist eliminating, auxiliary/service water systems and waste water systems.

This product is effective for the control of bacteria and fungi which causes fouling in metal-working fluids, hydraulic fluids, hydrocarbon based fuel oils, and oil and/or water based industrial formulations.

### **RECIRCULATING WATER SYSTEMS**

This product is effective for the control of bacterial, fungal and algal slimes in evaporative condensers, heat exchange water systems, commercial and industrial cooling towers, influent systems such as flow through filters and lagoons, industrial water scrubbing systems, brewery pasteurizers, hydrostatic cookers and retort waters. This product may be added to the system either continuously or intermittently as needed. The frequency of



feeding and duration of the treatment will depend upon the severity of contamination. BADLY FOULED SYSTEMS must be cleaned before treatment is begun.

**INTERMITTENT OR SLUG METHOD - INITIAL DOSE:** When the system is noticeably fouled, add this product at the rate of 0.4 to 4.2 pounds per 1000 gallons/50 to 500 ppm of water in the system. Repeat until control is achieved.

**SUBSEQUENT DOSE:** When control is evident, add this product at the rate of 0.3 to 3.3 pounds per 1000 gallons/40 to 400 ppm of water in the system every 3 days or as needed to maintain control.

**CONTINUOUS FEED METHOD - INITIAL DOSE:** When the system is noticeably fouled, add this product at the rate of 0.4 to 4.2 pounds per 1000 gallons/50 to 500 ppm of water in the system. Repeat until control is achieved.

**SUBSEQUENT DOSE:** Continuously feed this product to maintain a dosage of 0.3 to 3.3 pounds per 1000 gallons/40 to 400 ppm of blowdown (or water loss) from the system.

#### INTERMEDIATE WATER BASED COOLANT FORMULATIONS

Intermediate water based coolant formulations used in closed recirculating systems can become contaminated with microorganisms. This product is an excellent in-can preservative to inhibit the growth of microorganisms through storage, shipping, handling and use. Intermediate water based coolant formulations can contain from 0.36 lb to 5.25 lb/100 gallons (480 to 7,000 ppm) of this product for in-can preservation of the quality of the formulation and to extend the usefulness of the liquid coolant system. Final use dilution cannot exceed 500 ppm of this product in the final water based coolant formulation. As an example, treated coolant can be used in MRI (Magnetic Resonance Imaging) medical devices. The coolant is used to remove the heat generated by the gradient coil and the gradient amplifier.

#### AIR WASHERS

For use only in air washing systems that maintain effective mist eliminating components. To control bacteria, fungi and algae which cause fouling in industrial air washing systems, add this product to the air washer sump or chill water sump to insure uniform mixing at the rate of 0.3 to 3.3 pounds per 1000 gallons/40 to 400 ppm of water in the system depending upon the severity of the contamination. BADLY FOULED SYSTEMS must be cleaned before treatment is begun.

**INTERMITTENT OR SLUG METHOD - INITIAL DOSE:** When the system is noticeably fouled, apply this product at the rate of 0.4 to 4.2 pounds per 1000 gallons/50 to 500 ppm in the system. Repeat until control is achieved.

**SUBSEQUENT DOSE:** When microbial control is evident, add this product at the rate of 0.3 to 3.3 pounds per 1000 gallons/40 to 400 ppm of water in the system weekly or as needed to maintain control.

**CONTINUOUS FEED METHOD - INITIAL DOSE:** When the system is noticeably fouled, apply this product at the rate of 0.4 to 4.2 pounds per 1000 gallons of water/50 to 500 ppm in the system. **SUBSEQUENT DOSE:** Maintain this treatment level by adding a continuous feed of



this product at the rate of 0.3 to 3.3 pounds per 1000 gallons/40 to 400 ppm of blowdown (or water loss) from the system.

#### **AUXILIARY WATER/SERVICE WATER AND WASTE WATER SYSTEMS**

This product is effective for the control of odor-forming bacteria, slime-forming bacteria, fungi and algae in auxiliary water systems such as fire protection systems and pump or screen bays, waste water and waste material disposal, holding or recovery systems such as storage tanks, storage piles, associated piping, settling ponds or lagoons, transport spillways or canals and disposal wells.

**INTERMITTENT OR SLUG METHOD - INITIAL DOSE:** When the system is noticeably fouled, add this product at the rate of 0.4 to 4.2 pounds per 1000 gallons of water/50 to 500 ppm in the system. Repeat until control is achieved.

**SUBSEQUENT DOSE:** When control is evident, add this product at the rate of 0.3 to 3.3 pounds per 1000 gallons of water/40 to 400 ppm in the system every 3 days or as needed to maintain control.

**CONTINUOUS FEED METHOD - INITIAL DOSE:** When the system is noticeably fouled, add this product at the rate of 0.4 to 4.2 pounds per 1000 gallons of water/50 to 500 ppm in the system. Repeat until control is achieved.

**SUBSEQUENT DOSE:** Continuously feed this product to maintain a dosage of 0.3 to 3.3 pounds per 1000 gallons/40 to 400 ppm of blowdown (or water loss) from the system.

This product may be added to the system water or by spraying on to a waste pile as needed. The frequency of feed or spray and the duration of treatment will depend upon the severity of the contamination. Additives to water systems should be made during the pumping operation and as close to the pump as possible to ensure adequate mixing.

**INTERMITTENT OR SLUG METHOD:** When treatment is required, add this product at the rate of 0.4 to 4.2 pounds per 1000 gallons of water /50 to 500 ppm already in the system, or being added to the system for 4 to 8 hours, 1 to 4 times per week or as needed to achieve the desired level of control. When control is obtained, add this product at the rate of 0.3 to 3.3 pounds per 1000 gallons of water/40 to 400 ppm in the system.

#### **METAL WORKING FLUIDS, HYDRAULIC FLUIDS, HYDROCARBON BASED FUEL OIL AND OIL AND/OR WATER BASED INDUSTRIAL FORMULATIONS**

For control of bacteria, fungi and algae which cause fouling in metal working fluids, hydraulic fluids, hydrocarbon based fuel oils and oil and/or water based industrial formulations, add this product to the fluid insuring uniform mixing at the rate of 2 to 10 pounds per 1000 gallons/240 to 1200 ppm of fluid in the system depending upon the severity of the contamination. **BADLY FOULED SYSTEMS** must be cleaned before treatment is begun.

**INTERMITTENT OR SLUG METHOD - INITIAL DOSE:** When the system is noticeably fouled, apply this product at the rate of 4 to 10 pounds per 1000 gallons/400 to 1200 ppm of fluid in the system. Repeat every 4 weeks or until control is achieved. **SUBSEQUENT DOSE:** When



microbial control is evident, add this product at the rate of 2 to 5 pounds per 1000 gallons/240 to 600 ppm of fluid in the system every 4 weeks or as needed to maintain control.

This product is effective for the control of objectionable bacteria and fungi in pulp, paper mill, the additive system and for the preservation of paper mill additives and coatings.

### **PULP AND PAPER MILL**

In pulp and paper mill and the additive systems and for the preservation of pulp, pigment slurries, alum, emulsions, adhesives, non-coating defoamers, polymers and paper products this product aids to control objectionable bacteria and fungi. Additions can be made on a continuous or intermittent basis, depending on the severity of the contamination.

**BADLY FOULED SYSTEMS** must be cleaned before treatment is begun. This product should be added directly to the pulp and paper mill systems. Apply at a point where the product will be uniformly mixed.

**INTERMITTENT OR SLUG METHOD - INITIAL DOSE:** When the system is noticeably fouled, add this product at the rate of 0.75 to 7.5 pounds per ton of pulp or paper produced. Addition of this product to the additive system should be made directly at the rate of 0.42 to 5.4 pounds (50 – 650 ppm) per 1000 gallons. Repeat until control is achieved.

**SUBSEQUENT DOSE:** When microbial control is evident, add this product at the rate of 0.6 to 5.75 pounds per ton of pulp or paper produced. Treat the system as needed to maintain control. Addition of this product to the additive system may be reduced to 0.28 to 4.6 pounds (34 to 550 ppm) per 1000 gallons.

**CONTINUOUS FEED METHOD – INITIAL DOSE:** When the system is noticeably fouled, add this product at the rate of 0.75 to 2.0 pounds per ton of pulp or paper produced. Additions of this product to the additive system should be made directly at the rate of 0.42 to 5.4 pounds (50 to 650 ppm) per 1000 gallons. Continue until control is achieved.

**SUBSEQUENT DOSE:** Maintain the following level by continuous feed of this product at the rate of 0.6 to 1.75 pounds per ton of pulp or paper produced. Addition of this product to the additive system may be reduced to 0.28 to 4.6 pounds (34 to 550 ppm) per 1000 gallons. Continue until control is achieved.

### **FOR PRESERVATION**

This product should be added directly to the material to be preserved prior to manufacturing into the finished product i.e. pulp, broke, polymers, defoamers, alum, emulsions, adhesives, paper mill coatings, pigment slurries and paper products. The dosage rate will depend on the material to be preserved and the storage time. The usual additions should be 75 to 1300 ppm for polymer latex emulsions; 75 to 650 ppm for polymers, starch, defoamers, alum, adhesives, paper mill coatings and pigments slurries; and 150 to 650 ppm for pulp and broke. The above recommendations are based on a maximum storage time of 7 to 14 days. Repeat dosing every 7 to 14 days for storage times longer than two weeks.