

June 2, 2003

Mr. Allen F. Bollmier
Regulatory Specialist
The Dow Chemical Company.
1803 Building
Midland, MI 48674

Subject: **CANGUARD 777 Industrial Preservative**
EPA Registration Number 464-686
Application March 7, 2003

Dear Mr. Bollmeier:

The following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable with comments.

Proposed Amendment

- Revised first aid statement (Per PR Notice 2001-1)
- Revised CSF with current registration number and company name
- Incorporates end use directions

General Comments:

1. Revise the Pesticide Storage and Disposal text label to read as follows:

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

PESTICIDE STORAGE: Add storage text label								
CONCURRENCES								
SYMBOL								
SURNAME								
DATE								

"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 ...If burned, stay out of smoke.

See PR Notice 83-3 for detailed information and format

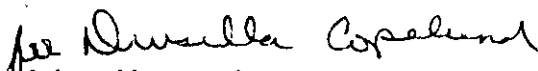
- 2. The precautionary statement subheading must be revised to read as follows:

**PRECAUTIONARY STATEMENT
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING**

A stamped copy of the accepted labeling is enclosed. Submit three (3) copies of your final printed labeling before distributing or selling the product.

Should you have any questions or comments concerning this letter, please contact me at (703) 308-6422 or Drusilla Copeland at (703) 308-6224.

Sincerely,



Adam Heyward
Product Manager (34)
Regulatory Management Branch II
Antimicrobials Division (7510C)

enclosure

ACCEPTED
with COMMENTS
EPA Letter Dated:

JUN - 2 2003

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

464-686

CANGUARD® 777

INDUSTRIAL PRESERVATIVE

ACTIVE INGREDIENT:	
β -Bromo- β -Nitrostyrene	25.0%
INERT INGREDIENTS:	75.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN!

WARNING

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

May be fatal if inhaled. Causes substantial but temporary eye injury and skin irritation. Harmful if swallowed or adsorbed through skin. Do not breath vapor or mist. Wear goggles or face shield. Wear a MSHA/NIOSH approved mask or respirator. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Do not get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

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.

PHYSICAL AND CHEMICAL HAZARDS

Do not use, pour or store near heat or open flame.

EPA Reg. No. 464-686
EPA Est. No. 464-MI-001

FIRST AID:

If in eyes: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately or treatment advice. Have person sip a glass of water if able to swallow.

Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on skin: Take off contaminated clothing.

Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment.

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.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.



THE DOW CHEMICAL COMPANY

Midland, Michigan 48674 U.S.A.

(989)636-4400

* Trademark of THE DOW CHEMICAL COMPANY

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STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Pesticide or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Triple rinse the container or equivalent before sending to drum conditioner or destroying by perforation or crushing. Consult Federal, state or local authorities for approved alternative procedures.

DIRECTIONS FOR USE

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

Metabreaking Fluids

To inhibit the growth of bacteria and fungi in soluble oils, semi-synthetic and synthetic fluids.

Frequency and Dose: CANGUARD 777 should be dosed directly to the sump at the concentrate of 500 ppm to 2000 ppm product in the fluid to control microbial growth.

Paper Mill Process Water

To control bacteria and fungi in paper or paperboard process water systems. Additions can be made on a continuous or intermittent basis, depending upon the severity of the contamination.

Frequency and Dose: Badly fouled systems must be cleaned before treatment is begun. **FOR SLIME CONTROL:** CANGUARD 777 should be added directly to the paper mill system such as the machine chest, head box or white water loop. Apply at a point in the system where CANGUARD 777 will be uniformly mixed when the system is noticeably fouled, add this product at the rate of 0.04 to 0.3 lb per ton of pulp or paper produced. **SUBSEQUENT DOSE.** When microbial control is evident, add CANGUARD 777 at the rate of 0.04 to 0.2 lb per ton of pulp or paper produced. **CONTINUOUS FEED METHOD: INITIAL DOSE.** When the system is noticeably fouled add CANGUARD 777 at the rate of 0.04 to 0.3 lb per ton of pulp or paper produced. **SUBSEQUENT DOSE.** Maintain the following level by continuous feed of CANGUARD 777 at the rate of 0.04 to 0.2 lb per ton of pulp or paper produced.

Paper Mill-Bulk Pulp (Non-food contact)

Preserve bulk quantities of pulp in paper and paperboard manufacturing systems or to prevent foul odors and general deterioration of stock. Add CANGUARD 777 directly into the hydropulper, machine chest or stock chest to provide sufficient mixing.

FREQUENCY AND DOSE: CANGUARD 777 can be slug dosed at between 0.04 to 0.3 lbs per ton of stock depending on the type and degree of contamination. In situations where contamination is high, repeat dosing every 1-3 days may be required.

Mold Inhibition in Paper and Paperboard (Non-food contact)

CANGUARD 777 is used to inhibit fungal growth, which causes discoloration, odor, and degradation in paper and paperboard grades for construction, industrial and non-food uses.

FREQUENCY AND DOSE: This product may be applied to the hydropulper or dump chest at the rate of 2 to 8 lb per ton of dry fiber product. Application can also be made at the size press or water box. In the case the application is made at the rate of 80 to 400 ppm of this product in the size solution applied to the paper sheet.

For inhibition of wet lap or sheet pulp, this product should be applied the dewatered pulp surfaces via applicator rolls or shower at 2 to 8 lb per ton of dry fiber.

Starch, Size, Defoamers, Retention Aids, and Paper Coatings (Non-food contact)

To inhibit the growth of bacteria and fungi during the manufacture, storage, and distribution of water-based Starch, Size, Defoamer, Retention Aids, and Paper Coatings.

FREQUENCY AND DOSE: CANGUARD 777 is dosed at 0.5 to 2.0 lb (500 to 2,000 ppm product) per 1,000 lbs of product.

Recirculating Cooling Water

CANGUARD 777 aids in the control of molluscal, 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 and industrial water scrubbing systems and brewery pasteurizers.

FREQUENCY AND DOSE: CANGUARD 777 may be added to the system either continuously or intermittently or as needed. The frequency of feeding and duration of the treatment will depend upon the severity of the problem.

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 0.3 lb to 0.6 lb (36 to 72 ppm product) per 1000 gallons of water in the system. Repeat until control is achieved.

SUBSEQUENT DOSE. When control is evident, add CANGUARD 777 at the rate of 0.04 to 0.16 lb (5 to 20 ppm product) per 1000 gallons 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 0.3 lb to 0.6 lb (36 to 72 ppm product) per 1000 gallons of water in the system. Continue until control is achieved.

SUBSEQUENT DOSE. Continuously feed this product to maintain a dosage of 0.04 to 0.16 lbs (5 to 20 ppm product) per 1000 gallons of blow down or water loss from the system.

Auxiliary Water and Waste Water System

This product is effective for the control of odor-forming and slime forming bacteria, fungi and algae in auxiliary water, waste water and tanks, storage pits, associated piping, settling ponds or lagoons, transport spillways or canals and disposal wells.

This product may be added to the system by slug or intermittent feed or by spraying onto a waste pile. The frequency of feed or spray and the duration of treatment will depend on the severity of the microbial contamination. Additions 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 CANGUARD 777 at the rate of 0.8 to 1.6 pounds per 1000 gallons of water already in the system, or being added to the system for 4 to 8 hours, 1 to 4 times per week as needed to achieve the desired level of control. When control is obtained add CANGUARD 777 at the rate of 0.4 to 0.8 pounds per 1000 gallons of water in the system.

Leather

CANGUARD 777 is used in protecting tanned leather from mold during in-tannery wet processing and for wet-blue during storage and transportation. For normal protection add CANGUARD 777 at 0.5 to 4 lb (500 to 4000 ppm products) per 1000 lb of wet hides.

Once Through Industrial Cooling Water System

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CANGUARD 777 aids in the control of molluscal, and of algal, bacterial and fungal slimes in once-through fresh water and sea water cooling systems, cooling ponds, canals and lagoons. This product may be added to the system inlet water or before any contaminated area in the system. CANGUARD 777 used as indicated will effectively destroy mollusca larvae during the spawning season.

Addition of CANGUARD 777 should be made with a metering pump, it may be continuous or intermittent depending on the severity of contamination when treatment is begun and the retention time in the system. Badly fouled systems must be cleaned before treatment is begun.

For Control of Bacteria, Fungi and Algae

Intermittent or Slug Method

INITIAL DOSE: When the system is noticeably fouled, add CANGUARD 777 at the rate of 0.067 lb to 0.3 lb (8 to 36 ppm product) per 1000 gallons of water in the system. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved.

SUBSEQUENT DOSE. When control is evident, add CANGUARD 777 at the rate of 0.034 lb to 0.3 lb (4 to 36 ppm product) per 1000 gallons of water in the system intermittently as to maintain control.

Continuous Feed Method

INITIAL DOSE: When the system is noticeably fouled, add CANGUARD 777 at the rate of 0.067 lb to 0.3 lbs (8 to 36 ppm product) per 1000 gallons of water in the system. Continue until control is achieved.

SUBSEQUENT DOSE. When microbial control is evident, pump a continuous feed of CANGUARD 777 at the rate of 0.034 lb to 0.3 lb (4 to 36 ppm product) per 1000 gallons of water based on the flow rate through the system.

For Control of Mollusca

DOSAGE: When mollusca larvae are suspected in the system and the water temperature exceeds 15°C (60°F) feed CANGUARD 777 to a rate of 0.7 lb (84 ppm product) per 1000 gallons of water. Apply CANGUARD 777 at this rate of 2 to 4 hours per day. Once control is achieved, the frequency of treatment may be reduced to 2 to 4 hours every other day, every third or once a week as necessary to maintain control.

Packer Fluids and Drilling Muds

CANGUARD 777 should be applied directly to packer fluids or drilling muds at a level of 50 to 500 lb per 1000 barrels or 80 to 800 ppm, depending upon the severity of the problem.

For Secondary and Tertiary Oil Recovery Systems

For controlling slime-forming and sulfide-producing bacteria, algae and fungi in oil field water, polymer or mycellar floods, water disposal systems and/or other oil field water systems, drilling muds and packer muds.

CANGUARD 777 should be added to the system as needed either continuously or intermittently, depending upon the severity of the problem. Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method

Use the same levels as above initially for especially fouled systems, then reduce the level to continuously feed into the systems 3 to 50 lb per 1000 barrels of water or 10 to 150 parts per million.

Intermittent Method of Usage

For noticeably fouled systems, the initial dosage should be 50 to 100 lb per 1000 barrels of water or 150 to 300 parts per million intermittently every 4 to 8 hours per day and from 1 to 4 times per week until control is obtained. After that, use 10 to 50 lb to 100 barrels of water or 30-300 parts per million every 2 to 3 days to maintain control.

Adhesives, Caulks and Sealants

To inhibit the growth of bacteria and fungi during the manufacture, storage and distribution of adhesives, caulks, and sealants.

Frequency and Dose: CANGUARD 777 is dosed at 0.5 to 2.0 lb (500 to 2,000 ppm product) per 1,000 lb of product.

Consumer, Household and Institutional Products

To inhibit the growth of bacteria and fungi during the manufacture, storage and distribution of consumer, household and institutional products including dishwashing liquids, surface cleaners, laundry cleaners and polishes.

Frequency and Dose: CANGUARD 777 is dosed at 0.5 to 2.0 lb (500 to 2,000 ppm product) per 1,000 lb of product.

Printing Inks, Dyes, Textile Lubricants, Guar Gums and Fountain Solutions

To inhibit the growth of bacteria and fungi during the manufacture, storage and distribution of water-based printing inks, dyes, textile lubricants, guar gum and fountain solutions.

Frequency and Dose: CANGUARD 777 is dosed at 0.5 to 2.0 lb (500 to 2,000 ppm product) per 1,000 lb of product or in concentrates to deliver 500 to 2000 ppm product in the diluted product.

Surfactant Preservation

To inhibit the growth of bacteria and fungi during the manufacture, storage and distribution of anionic, nonionic, cationic and amphoteric surfactants when supplied for the manufacture of industrial and consumer products.

Frequency and Dose: CANGUARD 777 is dosed at 0.5 to 2.0 lbs (500 to 2,000 ppm product) per 1,000 lb of product.

Fabric Mildewcide

To prevent mildew in laundry or treated fabric, use 0.25 to 1 liquid ounce of CANGUARD 777 in the final rinse for every 200 lb of fabric treated (80 to 320 ppm product).

Coating, Pigments, and Mineral Slurries

To inhibit the growth of bacteria and fungi during the manufacture, storage and distribution of coating, pigment slurries, dispersions and mineral slurries including; kaolin, calcium carbonate, and titanium dioxide.

Frequency and Dose: CANGUARD 777 is dosed at 0.5 to 2.0 lbs (500 to 2,000 ppm product) per 1,000 lb of product.

Paints, Latex, Antifoams, and Emulsion Systems

To inhibit the growth of bacteria and fungi during the manufacture, storage and distribution of acrylic, styrene acrylic, polyvinyl acetate, other latex emulsions and latex emulsion-based paints. Also for the preservation of silicone and other antifoam emulsion systems.

Frequency and Dose: CANGUARD 777 is dosed at 0.5 to 2.0 lb (500 to 2,000 ppm product) per 1,000 lb of product.

ACCEPTED
with COMMENTS
- EPA Letter Dated:

JUN - 2 2003

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 464-686