



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 24, 2018

Alexis L. Chapman  
Product Stewardship Senior Regulatory Specialist  
Dow Microbial Control  
Dow Chemical Company  
200 Larkin Center  
Midland, MI 48674

Subject: Label Amendment – Addition of non-public health biofilm language to Industrial or Commercial Cooling Water Systems and Air Washer Systems, raising lower limit of use rates  
Product Name: Antimicrobial 8536  
EPA Registration Number: 464-496  
Application Date: August 14, 2017  
Decision Number: 533082

Dear Ms. Chapman:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false

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or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Tom Luminello by phone at (703) 308-8075, or via email at [luminello.tom@epa.gov](mailto:luminello.tom@epa.gov).

Sincerely,

A handwritten signature in red ink that reads "Jacqueline Hardy". The signature is written in a cursive style and is positioned above the typed name.

Jacqueline Hardy, Product Manager (34)  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

Enclosure: Stamped Label

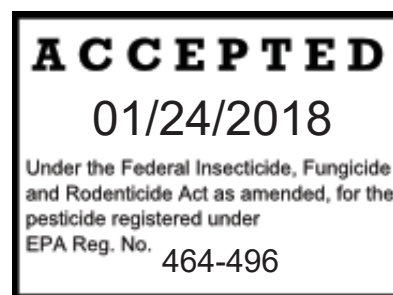
## ANTIMICROBIAL 8536

### FOR INDUSTRIAL USE

Active Ingredient:

2,2-Dibromo-3-nitropropionamide . . . . .	5%
Inert Ingredient(s): . . . . .	95%
Total	100%

E.P.A. Registration No. 464-496  
E.P.A. Est. XXX – XX - XXX



### KEEP OUT OF REACH OF CHILDREN DANGER

#### Precautionary Statements

##### Hazards To Humans and Domestic Animals

### DANGER

**CORROSIVE:** Causes irreversible eye damage • May be fatal if swallowed • Causes skin irritation • Harmful if inhaled or absorbed through skin. • Do not get in eyes, on skin or on clothing. • Avoid breathing spray or mist. • When loading or handling wear protective eyewear ( goggles or face shield) Wear long -sleeved shirt and long pants, socks, shoes and chemically resistant gloves • Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals • Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using the toilet or using tobacco. • Remove and wash contaminated clothing separately before reuse.

#### Personal Protective Equipment

Applicators and other handlers must wear:

- Coveralls, over long -sleeved shirt and long pants
- socks and chemical resistant footwear
- goggles or face shields
- Chemical-resistant gloves (such as barrier laminate, butyl nitrile/neoprene rubber, PVC or Viton)

#### Engineering Controls

When handlers use closed metering systems the handler requirements may be reduced or modified to long -sleeve shirt, long pants, shoes and socks.

### User Safety Requirements

Follow manufacturers' instructions for cleaning & maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Users must wash hands before eating, drinking, chewing gum, using the toilet or using tobacco. Users must remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users must 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.

### Application Restrictions

Do not apply this product directly in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

<b>FIRST AID</b>	
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 30 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call poison control center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15–20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
Have product container or label with you when calling a poison control center or doctor or going for treatment.	
<b>HOT LINE NUMBER</b>	
<b>IN CASE OF AN EMERGENCY</b> endangering life or property involving this product, call collect (989) 636-4400.	
<b>NOTE TO PHYSICIAN</b>	
If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.	

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## **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and 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.

## **STORAGE AND DISPOSAL**

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

**Storage:** To maintain product quality, store at temperatures below 35 °C. Keep container tightly closed when not in use.

**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**

*Option - labels for non refillable rigid containers of all sizes.*

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

*Option - labels on refillable rigid containers of all sizes*

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning of 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 container before final disposal, empty contents into application equipment and triple rinse. Pour or pump rinsate into application equipment or rinsate collection system. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## **DIRECTIONS FOR USE**

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

**NOTE:** ADD ANTIMICROBIAL 8536 SEPARATELY TO THE SYSTEM. DO NOT MIX IT WITH OTHER ADDITIVES, IN ORDER TO AVOID DECOMPOSITION OF THE PRODUCT DUE TO THE HIGH pH OF MANY ADDITIVE FORMULATIONS.

### **PAPER MILLS**

For the control of bacterial, fungal, and yeast growths in pulp, paper and paperboard mills, add Antimicrobial 8536 at the rate of 0.06-0.21 gal / ton of pulp or paper (dry basis). Addition may be continuous or intermittent, depending upon the type of system and the severity of contamination. It must be made with a metering pump at a location that will ensure uniform distribution of ANTIMICROBIAL 8536 in the mass of fiber and water, such as the beaters, jordan inlet or discharge, broke chests, furnish chests, save-alls, and white-water tanks.

#### **HEAVILY FOULED SYSTEMS**

Must be boiled out, then treated with 0.06 -0.15 gal ANTIMICROBIAL 8536 / ton of paper (dry basis), as necessary for control.

#### **MODERATELY FOULED SYSTEMS**

Must be treated continuously with 0.15 – 0.21 gal ANTIMICROBIAL 8536 / ton of paper (dry basis) until the slime accumulation is controlled. Addition rates can then be reduced to 0.06 -0.15 gal ANTIMICROBIAL 8536 / ton of paper on a continuous or intermittent basis, as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.

#### **SLIGHTLY FOULED SYSTEMS**

Must be treated continuously with 0.06-0.15 gal ANTIMICROBIAL 8536 / ton of paper (dry basis) until the slime is controlled, then added on an intermittent basis to maintain control.

### **INDUSTRIAL OR COMMERCIAL COOLING WATER SYSTEMS**

*Not registered for this use in the State of California- Optional Statement*

Not intended for use in once-through cooling systems.

For control of microbial growth in industrial or commercial cooling water systems use either continuous or slug dosing.

DO NOT MIX the product with other additives in order to avoid decomposition of the active ingredient due to the high pH of many additive formulations.

#### **CONTINUOUS FEED**

Add product to metering device for continuous feed. Add 20-480 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment.

#### **SLUG DOSING**

Add product to basin of cooling system or at any other point of uniform mixing. Add 100-480 ppm product to the water in the system depending upon severity of contamination. Repeat treatment every four days or as needed to maintain control. Do not exceed more than 480 ppm product in system water per day. Badly fouled systems must be cleaned before treatment.

### **NON-PUBLIC HEALTH BIOFILM CONTROL FOR INDUSTRIAL OR COMMERCIAL COOLING WATER SYSTEMS**

*Not registered for this use in the State of California- Optional Statement*

Not intended for use in once-through cooling systems.

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For control of non-public health biofilms in order to reduce system fouling in industrial or commercial cooling water systems use either continuous or slug dosing.  
DO NOT MIX the product with other additives in order to avoid decomposition of the active ingredient due to the high ph of many additive formulations.

#### CONTINUOUS FEED

Add product to metering device for continuous feed. Add 100-480 ppm per day of product to the water in the system depending on the severity of contamination.

Badly fouled systems must be cleaned before treatment.

#### SLUG DOSING

Add product to basin of cooling system or at any other point of uniform mixing.

Add 100-480 ppm product to the water in the system depending upon severity of contamination.

Repeat treatment every four days or as needed to maintain control. Do not exceed more than 480 ppm product in system water per day.

### **AIR-WASHER SYSTEMS**

*Not registered for this use in the State of California – Optional Statement*

**NOTE:** For use only in industrial air-washer systems that maintain effective mist eliminating components.

For control of microbial growth in air washer systems use either continuous or slug dosing.

Note: A solution of product may be made on site for dosing the system. DO NOT MIX the product solution with other additives, in order to avoid decomposition of the active ingredient due to the high pH of many additive formulations.

#### CONTINUOUS FEED

Add product using metering device for continuous feed. Add 80-480 ppm per day of product to the water in the system depending on the severity of contamination. Badly fouled systems must be cleaned before treatment.

#### SLUG DOSING

Add product to basin of system or at any other point of uniform mixing. Add 20-480 ppm product to the water in the system depending upon severity of contamination. Repeat treatment every four days or as needed to maintain control. Do not exceed more than 480 ppm product in system water per day. Badly fouled systems must be cleaned before treatment.

### **NON-PUBLIC HEALTH BIOFILM CONTROL FOR FOULED AIR WASHER SYSTEMS**

*Not registered for this use in the State of California – Optional Statement*

**NOTE:** For use only in industrial air-washer systems that maintain effective mist eliminating components. For control of non-public health biofilms in order to reduce system fouling in air washer systems use either continuous or slug dosing. Note: A solution of product may be made on site for dosing the system. DO NOT MIX the product solution with other additives, in order to avoid decomposition of the active ingredient due to the high pH of many additive formulations.

#### CONTINUOUS FEED

Add product using metering device for continuous feed. Add 100-480 ppm per day of product to the water in the system depending on the severity of contamination.

Badly fouled systems must be cleaned before treatment.

#### SLUG DOSING

Add product to basin of system or at any other point of uniform mixing. Add 100-480 ppm product to the water in the system depending upon severity of contamination. Repeat treatment every four

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days or as needed to maintain control. Do not exceed more than 480 ppm product in system water per day. Badly fouled systems must be cleaned before treatment.

## **INDUSTRIAL WASTEWATER SYSTEMS**

*Not Registered For This Use In The State Of California – Optional Statement*

### **Wastewater Systems, Wastewater Sludge And Wastewater Holding Tanks**

Antimicrobial 8536 may be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 500 – 8,000 ppm by weight.

## **PUBLICLY-OWNED TREATMENT WORKS**

### **TO CONTROL COLIFORM AND OTHER BACTERIA**

Add Antimicrobial 8536 at a concentration of 4.0 to 40.0 ppm by weight of water being treated, depending on the severity of contamination in the system. Addition should be CONTINUOUS and must be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add Antimicrobial 8536 to the system in a location where contact time will be 30 minutes or greater before reaching the outfall.

### **TO USE AS A CO-TREATMENT WITH CHLORINE**

Add 1.6 – 6.0 ppm Antimicrobial 8536 by weight of water treated. Chlorination must result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level). Addition must be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. ANTIMICROBIAL 8536 must be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

## **METALWORKING FLUIDS CONTAINING WATER**

This product is effective in metalworking fluid concentrates which have been diluted in water at ratios of 1:100 -1:4. For controlling (or inhibiting) the growth of bacteria, fungi, and yeasts that may deteriorate metalworking fluids containing water, add Antimicrobial 8536 to the fluid in the collection tank. Additions must be made with a metering pump.

### **INITIAL OR SLUG DOSE:**

When the system is just noticeably fouled, add 1.1 gal Antimicrobial 8536 / 1,000 gal of metalworking fluid to the system. Repeat until control is achieved.

### **SUBSEQUENT DOSE:**

When microbial control is evident, add 0.44 - 0.88 gal Antimicrobial 8536 / 1,000 gal of metalworking fluid per day, or as needed to maintain control. Additions can be made continuously or intermittently. Slug the system as required.

## **OIL FIELD APPLICATIONS**



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For reduction of bacterial contamination and degradation in oil recovery operations, add product to the system at a rate of 120 to 1,080 ppm depending on the severity of contamination.

### **ENHANCED OIL RECOVERY (EOR) FLUIDS**

*Not registered for this use in the State of California- Optional Statement*

The product reduces bacterial contamination and degradation of EOR polymers and gels. The product must be added to injection water before polymer addition.

**Frequency and Dose:** The product must be added at a rate of 120 to 1,080 ppm. Product must be added at a point to ensure proper mixing.

### **FRACTURING FLUIDS**

*Not registered for this use in the State of California- Optional Statement*

The product reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. The product must be added to the water storage tanks before gelling and circulated to ensure mixing. The product can be added at the well head for “on-the-fly” fracturing jobs.

**Frequency and Dose:** The product must be added at a rate of 360 to 1,080 ppm depending on water quality. Retreat after 48 hours if the frac job is delayed.

### **WATER FLOOD**

*Not registered for this use in the State of California – Optional Statement*

The product can be used to control slime and corrosion causing bacteria in waters used for secondary oil and gas recovery. If the system is heavily fouled, slug treat at the higher rate to remove biofilm. For maintenance, batch treat two to three times per week.

**Frequency and Dose:** The product must be added at a rate of 120 to 1,080 ppm. Product must be added at a point to ensure uniform mixing

### **HYDROTESTING**

*Not registered for this use in the State of California – Optional Statement*

#### **FOR CONTROL OF BACTERIA**

Water used to hydrotest pipelines or vessels should contain 400 to 4,000 ppm of Antimicrobial 8536 per 1,000 gallons water depending on water quality and length of time the equipment will remain idle.

**Notice:** Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

NET WT:

Lot:

Produced For *(used when manufactured by contract manufacturer)*

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Dow Diamond TM  
**THE DOW CHEMICAL COMPANY**  
**Midland, Michigan 48674**  
**989-636-4400**

**Optional** - 3<sup>rd</sup> party certification label verbiage and symbols in label space outside of FIFRA elements.