

ACCEPTED
464-496
April 2, 1980
UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR ECONOMIC POISON REGISTERED
UNDER NO.

LOT MM



ANT

Active Ingredient:
2,2-Dibromo-3-nitropropionamide 5%
Inert Ingredients: 95%
EPA Registration No. 464-496 EPA Est. 464-MI-1

DANGER

**CAUSES SEVERE BURNS OF EYES
CAUSES SKIN IRRITATION
HARMFUL IF SWALLOWED
Do Not Get in Eyes, on Skin, or Clothing
Wear Chemical Workers' Goggles
when Handling**

FIRST AID: In case of eye contact, flush eyes immediately with plenty of water for at least 15 minutes and get medical attention. In case of skin contact, wash with soap and plenty of water. Wash contaminated clothing before reuse. Get medical attention if irritation persists.

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Repeat until vomit is clear. Call a physician. Never give anything by mouth to an unconscious person.

WASH THOROUGHLY AFTER HANDLING

In case of an emergency endangering life or property involving this product, call collect
517-638-4400

**TO MAINTAIN PRODUCT QUALITY, STORE AT
TEMPERATURES BELOW 60°C
KEEP CONTAINER TIGHTLY CLOSED
WHEN NOT IN USE • FOR INDUSTRIAL USE ONLY**

86-1435 PRINTED IN U.S.A. IN DECEMBER, 1979.
REPLACES SPECIMEN LABEL 86-1435 PRINTED IN APRIL, 1979.
DISCARD PREVIOUS SPECIMEN LABELS.
REVISIONS INCLUDE: (1) NPDES DISCHARGE STATEMENT ADDED;
(2) NOTE ADDED TO AIR-WASHER SYSTEMS DIRECTIONS; (3) USES
IN METAL WORKING FLUIDS CONTAINING WATER, ENHANCED OIL
RECOVERY SYSTEMS, AND ONCE-THROUGH INDUSTRIAL COOLING
WATER SYSTEMS ADDED.

**Controls bacteria, fungi, and yeasts in paper mills, metalworking
recirculating water cooling towers and in once-through fresh and**

This product is toxic to fish. Apply this product only as specified on this label. Do not contaminate water by cleaning of equipment, or disposal of wastes.

NOTE: Do not discharge into lakes, streams, ponds, or public waters unless in accordance with a NPDES permit. For guidance, contact your regional office of the EPA.

Do not reuse empty container. Return to drum reconditioner; or destroy by perforating or crushing, and burying or discarding in a safe place away from water supplies.

NOTICE Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

DIRECTIONS FOR USE

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

PAPER MILLS

For the control of bacterial, fungal, and yeast growth in pulp, paper, and paper-board 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 should be made with a metering pump at a location that will insure 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 should 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 should 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 should 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 RE
WATER COOL**

Add ANTIMICROBIAL 8536 to the basin. Addition should be made with a metering pump, depending on the severity of contamination, and the retention time in the system. Optimum performance with this product is achieved with "shock" treatment discontinued for 24-48 hr.

FOR CONTROL

Add 0.0038-0.038 gal ANTIMICROBIAL 8536/1,000 gal of water, depending on the severity of contamination. Intermittent or Slug Method Initial Dose: When the system is not fouled, add 0.0038-0.019 gal ANTIMICROBIAL 8536/1,000 gal of water to achieve control.

Subsequent Dose: When microbial growth is controlled, add 0.0038-0.019 gal ANTIMICROBIAL 8536/1,000 gal of water as needed to maintain control.

Badly fouled systems must be cleaned before treatment.

Continuous Feed Method Initial Dose: When the system is not fouled, add 0.0038-0.019 gal ANTIMICROBIAL 8536/1,000 gal of water to achieve control.

Subsequent Dose: Maintain this level of ANTIMICROBIAL 8536/1,000 gal of water as needed to maintain control.

Lowdown

Badly fouled systems must be cleaned before treatment.

FOR CONTROL OF

Add 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water, depending on the severity of contamination.

Intermittent or Slug Method Initial Dose: When the system is not fouled, add 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water to achieve control.

Subsequent Dose: When microbial growth is controlled, add 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water as needed to maintain control.

Badly fouled systems must be cleaned before treatment.

Continuous Feed Method Initial Dose: When the system is not fouled, add 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water to achieve control.

Subsequent Dose: Maintain this level of ANTIMICROBIAL 8536/1,000 gal of water as needed to maintain control.



ANTIMICROBIAL 8536

... and yeasts in paper mills, metalworking fluids containing water, and enhanced oil recovery systems; controls bacteria, fungi, and algae in cooling towers and in once-through fresh and sea water industrial cooling water systems; controls slime-forming bacteria and fungi in air-washer systems.

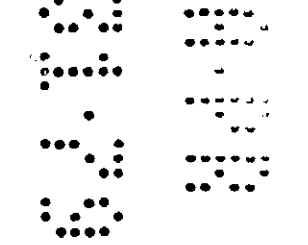
... only as specified on this label. Do not use for treatment, or disposal of wastes. ... ponds, or public waters unless in accordance with local, state, or federal regulations. Contact your regional office of the manufacturer for more information. Do not use as a drum reconditioner; or destroy by incineration or burning in a safe place away from buildings.

Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

FOR USE
... TO THE SYSTEM. DO NOT ADD TO A SYSTEM WITH HIGH pH OF MANY ADDITIVE FOR...

PAPER MILLS
... growth in pulp, paper, and paper-mill effluents at the rate of 0.06-0.21 gal/ton of pulp (dry basis) until the slime accumulation is reduced to 0.06-0.15 gal. ANTIMICROBIAL 8536 on an intermittent basis, as needed to break up the slime and clean-up of the system.

... out, then treated with 0.06-0.15 gal. (dry basis), as necessary for control. ... treated continuously with 0.15-0.21 gal. (dry basis) until the slime accumulation is reduced to 0.06-0.15 gal. ANTIMICROBIAL 8536 on an intermittent basis, as needed to break up the slime and clean-up of the system.



INDUSTRIAL RECIRCULATING WATER COOLING TOWERS

Add ANTIMICROBIAL 8536 to the basin (or any other point of uniform mixing). Addition should be made with a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the retention time in the system. Optimum performance with this product is attained by continuous or intermittent treatment. If "snock" treatment is used, the blowdown should be discontinued for 24-48 hr.

FOR CONTROL OF BACTERIA

Add 0.0038-0.038 gal ANTIMICROBIAL 8536/1,000 gal of water in the system, depending on the severity of contamination. Intermittent or Slug Method Initial Dose: When the system is noticeably fouled, add 0.019-0.038 gal ANTIMICROBIAL 8536/1,000 gal of water in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 0.0095-0.038 gal ANTIMICROBIAL 8536/1,000 gal of water in the system every 4 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method Initial Dose: When the system is noticeably fouled, add 0.019-0.038 gal ANTIMICROBIAL 8536/1,000 gal of water to the system. Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0038-0.019 gal ANTIMICROBIAL 8536/1,000 gal of water in the system lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF FUNGI AND ALGAE

Add 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water in the system, depending on the severity of contamination. Intermittent or Slug Method Initial Dose: When the system is noticeably fouled, add 0.192-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water in the system daily, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun. Continuous Feed Method Initial Dose: When the system is noticeably fouled, add 0.192-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water to the system.

Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 0.116-0.380 gal ANTIMICROBIAL 8536/1,000 gal of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

AIR-WASHER SYSTEMS

Add 0.0078-0.250 gal ANTIMICROBIAL 8536/1,000 gal of water in the system, depending upon the severity of contamination to control slime-forming bacteria and fungi in industrial air washer systems. Intermittent or Slug Method Initial Dose: When the system is noticeably fouled, add 0.156-0.250 gal ANTIMICROBIAL 8536/1,000 gal of water in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 0.0078-0.125 gal ANTIMICROBIAL 8536/1,000 gal of water in the system every 2 days or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun. Continuous Feed Method Initial Dose: When the system is noticeably fouled, add 0.156-0.250 gal ANTIMICROBIAL 8536/1,000 gal of water in the system. Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0078-0.125 gal ANTIMICROBIAL 8536/1,000 gal of water in the system per day. Badly fouled systems must be cleaned before treatment is begun. Note: For use only in industrial air washer systems that maintain effective mist-eliminating components.

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 should 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.

ENHANCED OIL RECOVERY

For controlling slime-forming bacteria, sulfide-producing fungi in oil field water, polymer or micellar flood other oil field water systems, add 4-320 ppm ANTIMICROBIAL 8536 per 2400 barrels of water of contamination. Additions should be made continuously or intermittently. Continuous Feed Method When the system is noticeably fouled, add 40-320 (3.6-28.6 gal ANTIMICROBIAL 8536 per 2400 barrels) the desired degree of control is achieved. Subsequent ANTIMICROBIAL 8536 (0.4-5.4 gal ANTIMICROBIAL 8536 per 2400 barrels of water) continuously or as needed to maintain control. Intermittent or Slug Method When the system is noticeably fouled, or to maintain 40-320 ppm ANTIMICROBIAL 8536 (3.6-28.6 gal ANTIMICROBIAL 8536 per 2400 barrels of water) intermittently for 4-8 hours, week, or as needed depending on the severity of contamination. Addition of ANTIMICROBIAL 8536 may be made before or after the injection pumps and injectors. NOTE: For control of bacteria, yeast, and fungi biopolymer used in flooding operations, add 8536 (5.4-28.6 gal ANTIMICROBIAL 8536 per 2400 barrels of water) should be made with the biopolymer after preparation of the aqueous biopolymer solution.

ONCE-THROUGH INDUSTRIAL COOLING SYSTEMS

For controlling bacteria, fungi, and algae in once-through and sea water cooling systems, cooling ponds, and other industrial cooling systems, add ANTIMICROBIAL 8536 to the system inlet water or area in the system. Addition should be made with a metering pump. Addition should be made continuously or intermittent depending on the severity of contamination. When treatment is begun, and the retention time in the system is short, the retention time in the system should be increased. FOR CONTROL OF BACTERIA Add 4-48 ppm ANTIMICROBIAL 8536 based on the severity of contamination. Intermittent Method Initial Dose: When the system is noticeably fouled, add 4-48 ppm ANTIMICROBIAL 8536. Minimum treatment interval until control is achieved.

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SPECIMEN LABEL
REDUCED TO 87%

ANTIMICROBIAL 8536

every systems; controls bacteria, fungi, and algae in industrial
controls slime-forming bacteria and fungi in air-washer systems.

... by pumping a continuous feed
... gal of water in the system per
... treatment is begun.

SYSTEMS

... 1,000 gal of water in the system,
... to control slime forming bacteria
... fouled, add 0.156 - 0.250 gal AN-
... system. Repeat until control is
... evident, add 0.0078 - 0.125 gal
... system every 2 days or as need-
... treatment is begun.

... fouled, add 0.156 - 0.250 gal AN
... system
... pumping a continuous feed of
... 00 gal of water in the system per
... treatment is begun.
... systems that maintain effective mist

CONTAINING WATER

... d concentrates which have been
... bacteria, fungi, and yeasts that may
... er, add ANTIMICROBIAL 8536 to
... d be made with a metering pump.
... st noticeably fouled, add 1.1 gal
... rking fluid to the system. Repeat
... is evident, add 0.44-0.88 gal AN-
... ng fluid per day, or as needed to
... uously or intermittently. Slug the

ENHANCED OIL RECOVERY SYSTEMS

For controlling slime forming bacteria, sulfide producing bacteria, yeasts, and fungi in oil field water, polymer or micellar floods, water disposal systems, or other oil field water systems, add 4.320 ppm ANTIMICROBIAL 8536 (0.4 28.6 gal ANTIMICROBIAL 8536 per 2400 barrels of water) depending on the severity of contamination. Additions should be made with a metering pump either continuously or intermittently.

Continuous Feed Method
When the system is noticeably fouled, add 40-320 ppm ANTIMICROBIAL 8536 (3.6-28.6 gal ANTIMICROBIAL 8536 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 4.60 ppm ANTIMICROBIAL 8536 (0.4 5.4 gal ANTIMICROBIAL 8536 per 2400 barrels of water) continuously or as needed to maintain control.

Intermittent or Slug Method
When the system is noticeably fouled, or to maintain control of the system, add 40-320 ppm ANTIMICROBIAL 8536 (3.6-28.6 gal ANTIMICROBIAL 8536 per 2400 barrels of water) intermittently for 4-8 hours per day, and from 1-4 times per week, or as needed depending on the severity of contamination.

Addition of ANTIMICROBIAL 8536 may be made at the free water knockouts, before or after the injection pumps and injection well headers.

NOTE: For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 60-320 ppm ANTIMICROBIAL 8536 (5.4-28.6 gal ANTIMICROBIAL 8536 per 2400 barrels of water). Additions of ANTIMICROBIAL 8536 should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to prevent loss of viscosity.

ONCE-THROUGH INDUSTRIAL COOLING WATER SYSTEMS

For controlling bacteria, fungi, and algae in once-through and closed-cycle fresh and sea water cooling systems, cooling ponds, canals, and lagoons, add ANTIMICROBIAL 8536 to the system inlet water or before any other contaminated area in the system. Addition should be made with a metering pump, it may be continuous or intermittent depending on the severity of the contamination when treatment is begun, and the retention time in the system.

FOR CONTROL OF BACTERIA
Add 4-48 ppm ANTIMICROBIAL 8536 based on the flow rate through the system, depending on the severity of contamination.

Intermittent Method
Initial Dose: When the system is noticeably fouled, add 24-48 ppm ANTIMICROBIAL 8536. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 12-48 ppm ANTIMICROBIAL 8536 intermittently as needed to maintain control.

Badly fouled systems must be cleaned before treatment is begun.
Continuous Feed Method
Initial Dose: When the system is noticeably fouled, add 24-48 ppm ANTIMICROBIAL 8536 continuously to the system.

Subsequent Dose: When microbial control is evident, pump a continuous feed of 4-24 ppm ANTIMICROBIAL 8536 to the system.

Badly fouled systems must be cleaned before treatment is begun.
FOR CONTROL OF FUNGI AND ALGAE
Add 144-472 ppm ANTIMICROBIAL 8536 based on the flow rate through the system, depending on the severity of contamination.

Intermittent Method
Initial Dose: When the system is noticeably fouled, add 240-472 ppm ANTIMICROBIAL 8536 to the system. The minimum treatment interval should be 15 minutes. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 144-472 ppm ANTIMICROBIAL 8536 to the system daily or as needed to maintain control. The minimum treatment interval should be 15 minutes.

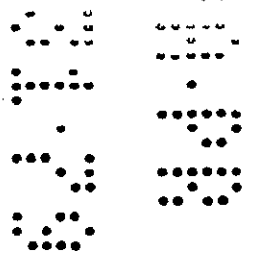
Badly fouled systems must be cleaned before treatment is begun.
Continuous Feed Method
Initial Dose: When the system is noticeably fouled, add 240-472 ppm ANTIMICROBIAL 8536 to the system.

Subsequent Dose: When microbial control is evident, pump a continuous feed of 144-472 ppm ANTIMICROBIAL 8536 to the system.

Badly fouled systems must be cleaned before treatment is begun.
NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

kg/ lb net

THE DOW CHEMICAL COMPANY
AND SUBSIDIARIES
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CORAL GABLES, FLORIDA 33134, USA SARNIA ONTARIO, CANADA
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