aqua-serv

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EPA EST. NO. 10932-CA-1 EPA REG. NO. 10932-13

ANTIM

Controls bacteria, fungi, and yeasts in paper mills, metalworking fluids containing water, and enchanced oil reco
recirculating water cooling towers and in once-through fresh and sea water industrial cooling water systems; conti

DIRECTIONS FOR USE

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

NOTE: ADD ANTIMICROBIAL 7413 *SEPARATELY* TO THE SYSTEM. DO *NOT* MIX IT WITH OTHER ADDITIVES. TO AVOID DECOMPOSITION OF ANTIMICROBIAL 7413 DUE TO THE HIGH pH OF MANY ADDITIVE FORMULATIONS.

INDUSTRIAL RECIRCULATING WATER COOLING TOWERS

Add ANTIMICROBIAL 7413 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 "shock" treatment is used, the blowdown should be discontinued for 2.4-4.8 hours.

FOR CONTROL OF BACTERIA

ADD 0.0038-0.038 gal. ANTIMICROBIAL 7413/1,000 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 0.019-0.38 gal. ANTIMICROBIAL 7413/1,000 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 7413/1,000 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 7413/1,000 gal. of water to the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0038-0.019 gal. ANTIMICROBIAL 7413/1,000 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 7413/1,000 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 7413/1,000 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 7413/1,000 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 7413/1,000 gal. of water to the system.

Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 0.116-0.380 gal. ANTIMICROBIAL 7413/1,000 gal. of water in the system per day

Badly fouled systems must be cleaned before treatment is begun.

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 7413 to the fluid in the collection tank. Additions should be made with a metering pump.

Initial or Slug Dose: When the system is noticeably fouled, add 1.1 gal. ANTIMICROBIAL 7413/1,000 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 7413/1,000 gal. of metalworking fluid per day, or as needed to maintain control. Additions can be made continuously or intermittently. Skim the system as required.

PAPER MILLS

For the control of bacterial, fungal, and yeast growth in pulp, paper, and paperboard mills, add ANTIMICROBIAL 7413 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 7413 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 7413/ton of paper (dry basis), as necessary for control.

Moderately fouled systems should be treated continuously with 0.15-0.21 gal. ANTIMICROBIAL 7413/ton of paper (dry basis) until the slime accumulation is controlled. Addition rates can then be reduced to 0.06-0.15 gal. ANTIMICROBIAL 7413/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 7413/ton of paper (dry basis) until the slime is controlled, then added on an intermittent basis to maintain control.

AIR-WASHER SYSTEMS

Add 0.0078-0.250 gal. ANTIMICROBIAL 7413/1,000 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 7413/1,000 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 7413/1,000 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 7413/1,000 gal. of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0078-0.125 gal. ANTIMICROBIAL 7413/1,000 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.

ACTIVE INGREDIENT	
2,2-Dibromo-3-nitrilopropionamide	5%
INERT INGREDIENTS	95%

KEEP OUT OF REACH OF CHILDREN

DANGER

SEE **FIRST AID** AND OTHER PRECAUTIONS ON SIDE PANEL

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 7413 (0.4-28.6 gal. ANTIMICROBIAL 7413 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 7413 (3.6-28.6 gal. ANTIMICROBIAL 7413 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 4-60ppm ANTIMICROBIAL 7413 (0.4-5.4 gal. ANTIMICROBIAL 7413 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 7413 (3.6-28.6 gal ANTIMICROBIAL 7413 per 2400 barrels of water)

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

lodged 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 7413/ton of paper (dry basis) until the slime is controlled, then added on an intermittent basis to maintain control.

AIR-WASHER SYSTEMS

Add 0.0078-0.250 gal. ANTIMICROBIAL 7413/1,000 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 7413/1,000 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 7413/1,000 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 7413/1,000 gal. of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0078-0.125 gal. ANTIMICROBIAL 7413/1,000 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

ACTIVE INGREDIENT	
2,2-Dibromo-3-nitrilopropionamide	5%
INERT INGREDIENTS	95%

KEEP OUT OF REACH OF CHILDREN

DANGER

SEE **FIRST AID** AND OTHER PRECAUTIONS ON SIDE PANEL

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 7413 (0.4-28.6 gal. ANTIMICROBIAL 7413 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 7413 (3.6-28.6 gal. ANTIMICROBIAL 7413 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 4-60ppm ANTIMICROBIAL 7413 (0.4-5.4 gal. ANTIMICROBIAL 7413 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 7413 (3.6-28.6 gal ANTIMICROBIAL 7413 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 7413 may be made at the free water knockout, ahead of or after the 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 7413 (5.4-28.6 gal. ANTIMICROBIAL 7413 per 2400 barrels of water). Additions of ANTIMICROBIAL 7413 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 7413 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 of the system

FOR CONTROL OF BACTERIA

Add 4-48 ppm ANTIMICROBIAL 7413 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 7413 Minimum treatment interval should be 15 minutes Repeat until control is achieved

Subsequent Dose: When microbial control is evident, add 12-48 ppm ANTIMICROBIAL 7413 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 7413 continuously to the system.

Subsequent Dose: When microbial control is evident, pump a continuous feed of 4-24 ppm ANTIMICROBIAL 7413 to the system.

Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF FUNGI AND ALGAE

Add 144-472 ppm ANTIMICROBIAL 7413 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 7413 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 7413 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 7413 to the system.

Subsequent Dose: When microbial control is evident, pump a continuous feed of 144-472 ppm ANTIMICROBIAL 7413 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.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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.

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.

ENVIRONMENTAL HAZARDS: This product is toxic to fish. Do not discharge into lakes, streams, ponds, or public waters unless in accordance with NPDES permit. For guidance contact your Regional Office of the EPA.

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