aqua-serv

aqua-serv engineers, inc.

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

AM

Controls bacteria, fungi, and yeasts in paper mills, metalw recirculating water cooling towers and in once-through fres

Active Ingredient	
2, 2-Dibromo-3-nitrilopropionamide	20%
Inert Ingredients	80%

DANGER

CAUSES SEVERE BURNS OF EYES
EYE CONTACT MAY CAUSE LOSS OF VISION
MAY BURN THE SKIN • MAY BE HARMFUL OR FATAL IF SWALLOWED
Do Not Get in Eyes, on Skin, or on Clothing
Chemical Worker's Goggles Must Be Worn 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

ACCEPTED
10932-14
SEP 1 6 1982

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

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

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

Do not reuse empty container. **Return to drum reconditioner,** or destroy it 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 7417 SEPARATELY TO THE SYSTEM. DO NOT MIX IT WITH OTHER ADDITIVES, IN ORDER TO AVOID DECOMPOSITION OF ANTIMICROBIAL 7417 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 7417 at the rate of 0.15-0.50 lb/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 7417 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 0.15-0.35 lb ANTIMICROBIAL 7417/ton of paper (dry basis), as necessary for control.

Moderately fouled systems should be treated continuously with 0.35-0.50 lb ANTIMICROBIAL 7417/ton of paper (dry basis) until the slime accumulation is controlled. Addition rates can then be reduced to 0.15-0.35 lb ANTIMICROBIAL 7417/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 0.15-0.35 lb ANTIMICROBIAL 7417/ton of paper (dry basis) until the slime is controlled, then added on an intermittent basis to maintain control.

METALWO
CONTAI

This product is effective in metalw
diluted in water at ratios of 1:100—

For controlling (or inhibiting) the gr
deteriorate metalworking fluids cont
the fluid in the collection tan . Addit

Initial or Slug Dose: Wher the sy
ANTIMICROBIAL 7417/1,0( ) gal o
until control is achieved.

Subsequent Dose: When microb
TIMICROBIAL 7417/1,000 gal of m
maintain control. Additions can be m
system as required.

ENHANCED OIL

For controlling slime-formin , bacte
fungi in oil field water, polymer of
other oil field water systems add 1
ANTIMICROBIAL 7417 per 2400 ba
contamination. Additions should be
tinuously or intermittently.

Continuous Feed Method
When the system is noticeably fo
7417 (0.8-6.4 gal ANTIMICROBIA
tinuously until the desired degre
treat with 1-15 ppm ANTIMICRO
7417 per 2400 barrels of water) c
control.

Intermittent or Slug Method
When the system is noticeably foule
10-80 ppm ANTIMICROBIAL 7417 (0
barrels of water) intermittently for 4
week, or as needed depending on th

Addition of ANTIMICROBIAL 7417
before or after the injection pumps a

NOTE: For control of bacteria, ye
biopolymer used in flooding ope
7417 (1.2-6.4 gal ANTIMICROBIAL 7
ANTIMICROBIAL 7417 should be m
after preparation of the aqueous biop

ANTIMICROBIAL 741

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

METALWORKING FLUIDS CONTAINING WATER

The 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 7417 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 0.25 gal ANTIMICROBIAL 7417/1,000 gal of metalworking fluid to the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.1-0.2 gal ANTIMICROBIAL 7417/1,000 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 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 1-80 ppm ANTIMICROBIAL 7417 (0.1-6.4 gal ANTIMICROBIAL 7417 per 2,400 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 10-80 ppm ANTIMICROBIAL 7417 (0.8-6.4 gal ANTIMICROBIAL 7417 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1-15 ppm ANTIMICROBIAL 7417 (0.1-1.2 gal ANTIMICROBIAL 7417 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 10-80 ppm ANTIMICROBIAL 7417 (0.8-6.4 gal ANTIMICROBIAL 7417 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 7417 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 15-80 ppm ANTIMICROBIAL 7417 (1.2-6.4 gal ANTIMICROBIAL 7417 per 2400 barrels of water). Additions of ANTIMICROBIAL 7417 should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to prevent loss of viscosity.

INDUSTRIAL RECIRCULATING WATER COOLING TOWERS

Add ANTIMICROBIAL 7417 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 hr.

FOR CONTROL OF BACTERIA

Add 0.00095-0.0095 gal ANTIMICROBIAL 7417/1,000 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 0.0048-0.0095 gal ANTIMICROBIAL 7417/1,000 gal of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.0024-0.0095 gal ANTIMICROBIAL 7417/1,000 gal of water in the system every 4 days, or as needed to maintain control.

Badly fouled systems must be cleaned before the treatment is begun.

Continuous Feed Method

Initial Dose: When the system is noticeably fouled, add 0.0048-0.0095 gal ANTIMICROBIAL 7417/1,000 gal of water to the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.00095-0.0048 gal ANTIMICROBIAL 7417/1,000 gal of water in the system per day.

Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF FUNGI AND ALGAE

Add 0.029-0.095 gal ANTIMICROBIAL 7417/1,000 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 0.048-0.095 gal ANTIMICROBIAL 7417/1,000 gal of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.029-0.095 gal ANTIMICROBIAL 7417/1,000 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 0.048-0.095 gal ANTIMICROBIAL 7417/1,000 gal of water to the system.

Subsequent Dose: Maintain this treatment level by pumping... of 0.029-0.095 gal ANTIMICROBIAL 7417/1,000 gal of water... day.

Badly fouled systems must be cleaned before treatment...

ONCE-THROUGH INDUSTRIAL COOLING SYSTEMS

For controlling bacteria, fungi, and algae in once-through and... and sea water cooling systems, cooling ponds, canals, and... TIMICROBIAL 7417 to the system inlet water or before any... area in the system. Addition should be made with a metering... continuous or intermittent depending on the severity of the c... treatment is begun, and the retention time in the system.

FOR CONTROL OF BACTERIA

Add 1-12 ppm ANTIMICROBIAL 7417 based on the flow... system, depending on the severity of contamination.

Intermittent Method

Initial Dose: When the system is noticeably fouled, ad... TIMICROBIAL 7417. Minimum treatment intervals should be... until control is achieved.

Subsequent Dose: When microbial control is evident, a... TIMICROBIAL 7417 intermittently as needed to maintain co...

Badly fouled systems must be cleaned before treatment...

Continuous Feed Method

Initial Dose: When the system is noticeably fouled, ad... TIMICROBIAL 7417 continuously to the system.

Subsequent Dose: When microbial control is evident, pump... of 1-6 ppm ANTIMICROBIAL 7417 to the system.

Badly fouled systems must be cleaned before treatment...

FOR CONTROL OF FUNGI AND ALG...

Add 36-118 ppm ANTIMICROBIAL 7417 based on the flow... system, depending on the severity of contamination.

Intermittent Method

Initial Dose: When the system is noticeably fouled, add... TIMICROBIAL 7417 to the system. The minimum treatment in... minutes. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, ad... TIMICROBIAL 7417 to the system daily or as needed to ma... minimum treatment interval should be 15 minutes.

Badly fouled systems must be cleaned before treatment...

ROBIAL 7417

ced oil recovery systems; controls bacteria, fungi, and algae in industrial tems; controls sl me-forming bacteria and fungi in air-washer systems.

ISTRIAL RECIRCULATING ITER COOLING TOWERS

7417 to the basin (or any other point of uniform mixing). le with a metering pump; it may be continuous or inter- the severity of the contamina ion when treatment is n time in the system.

with this product is attained by continuous or intermit- k" treatment is used, the blow down should be decon-

R CONTROL OF BACTERIA

ANTIMICROBIAL 7417/1,000 gal of water in the h severity of contamination.

Method

system is noticeably fouled, add 0 0048-0 0095 gal AN- 00 gal of water in the system. Repeat until control is

hen microbial control is evident, add 0 0024-0 0095 gal 1,000 gal of water in the system every 4 days, or as rol

must be cleaned before treatment is begun

hod

system is noticeably fouled, add 0 0048-0 0095 gal AN- 0 gal of water to the system

aintain this level by pumping a continuous feed of MICROBIAL 7417/1,000 gal of water in the system per

must be cleaned before treatment is begun

NTROL OF FUNGI AND ALGAE

TIMICROBIAL 7417/1,000 gal of water in the system y of contamination.

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system is noticeably fouled add 0 048-0 095 gal AN- 0 gal of water in the system Repeat until control is

n microbial control is evident add 0 029-0 095 gal AN- 0 gal of water in the system daily, or as needed to

must be cleaned before treatment is begun

id

system is noticeably fouled add 0 048-0 095 gal AN- gal of water to the system

Subsequent Dose Maintain this treatment level by pumping a continuous feed of 0 029-0 095 gal ANTIMICROBIAL 7417/1,000 gal of water in the system per day

Badly fouled systems must be cleaned before treatment is begun

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 7417 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 1 12 ppm ANTIMICROBIAL 7417 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 6 12 ppm ANTIMICROBIAL 7417 Minimum treatment intervals should be 15 minutes Repeat until control is achieved

Subsequent Dose: When microbial control is evident, add 3 12 ppm ANTIMICROBIAL 7417 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 6-12 ppm ANTIMICROBIAL 7417 continuously to the system

Subsequent Dose When microbial control is evident, pump a continuous feed of 1 6 ppm ANTIMICROBIAL 7417 to the system

Badly fouled systems must be cleaned before treatment is begun

FOR CONTROL OF FUNGI AND ALGAE

Add 36-118 ppm ANTIMICROBIAL 7417 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 60 118 ppm ANTIMICROBIAL 7417 to the system The minimum treatment interval should be 15 minutes Repeat until control is achieved

Subsequent Dose When microbial control is evident add 36 118 ppm ANTIMICROBIAL 7417 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 60-118 ppm ANTIMICROBIAL 7417 to the system

Subsequent Dose: When microbial control is evident, pump a continuous feed of 36-118 ppm ANTIMICROBIAL 7417 to the system

Badly fouled systems must be cleaned before treatment is begun

AIR-WASHER SYSTEMS

Add 0 0015 gal to 0 095 gal ANTIMICROBIAL 7417/1,000 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 0 003 gal to 0.095 gal ANTIMICROBIAL 7417/1,000 gal of water in the system Repeat until control is achieved

Subsequent Dose When microbial control is evident, add 0 0015 gal to 0 047 gal ANTIMICROBIAL 7417/1,000 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 0 003 gal to 0 095 gal ANTIMICROBIAL 7417/1,000 gal of water in the system

Subsequent Dose Maintain this level by pumping a continuous feed of 0 0015 gal to 0 047 gal ANTIMICROBIAL 7417/1,000 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

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