**Reputan D20 Preservative**

**DON'TA**

A MICROBIOCIDAL BACTERICIDE, FUNGICIDE, ALGAECIDE AND SLIMUCIDE USED IN TREATING RECIRCULATING COOLING WATER IN INDUSTRIAL SYSTEMS, PAPER MILLS, BREWERY PASTEURIZER WATER, METALWORKING CUTTING FLUIDS, NON- POTABLE REVERSE OSMOSIS SYSTEMS, ENHANCED OIL RECOVERY SYSTEMS, AIR-WASHER SYSTEMS, INDUSTRIAL PRESERVATION APPLICATIONS, EQUIPMENT CLEANING AND PUBLICLY-OWNED TREATMENT WORKS.

**ACTIVE INGREDIENT:**

C2,2,3-Dibromo-3-nitropropionamide: 20%

**OTHER INGREDIENTS:**

10%

**TOTAL:**

100%

2 pounds C2,2,3-Dibromo-3-nitropropionamide per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

**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 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

If SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF INHALED:**

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:**

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

**NOTE TO PHYSICIAN:**

Probable mucosal damage may not manifest the indication of gastric irritation;

See side panels for additional precautionary statements;

DISTRIBUTED BY:

ARCH Chemicals, Inc.
1200 Bluegrass Lakes Parkway
Alpharetta, GA 30004

Phone: 770-725-9237

EPA Reg. No. 88714-2-1258

EPA Est. No. 74922-2-01

LOT#: 275 gallons

**TRANSPORTATION EMERGENCY (SPIILL) NO: 800-654-0911 (LEAN)**

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in a dark, cool, dry, well-ventilated area, below 104°F (40°C), in well-closed original containers, away from energy sources, combustible organic materials, corrosives and moisture.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticides, empty container or residue is a violation of Federal Law. If these wastes cannot be destroyed 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 HANDLING:** Nonrefillable container. Do not re-use or refill this container. Celler for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Trims cross as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¾ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty residue into application equipment or a mix tank or store residue in a suitable container for late use or disposal. Repeat this procedure two more times.

**SPILLS:** When handling or dealing with spills, use impact-resistant goggles with side-shields, or face shield wear protective clothing, including chemical-resistant gloves and boots; use a respirator if fuming occurs. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described for posticide disposal. If container contents are contaminated or decomposing, isolate unwanted container in the open or in a well-ventilated area; food with: 10% sodium bicarbonate solution and large volumes of water if necessary.

**DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

**INDUSTRIAL RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS**

Add this product separately to the system. Do not mix it with other additives, so as to avoid compromission of this product due to the high pH of many additive formulations. Add this product to the mix (or any other point of uniform mixing). Addition should be made via a metering pump, it may be continuous or intermittent, depending on the severity of the contamination when day 1 of treatment begins and the maintenance regime. Optimum performance with this product is achieved by continuous or intermittent treatment. If "shock" treatment is used, the blow down should be avoided. This product may be discontinued in 24-48 hours.

**FIRE CONTROL OF MACHINES:**

Add 0.0005-0.0006 gallons of this product/1000 gal of water in the system depending on the severity of contamination.

**CONTINUOUS OR SLUG METHOD:**

Initial Dose: When the system is noticeably fouled, add 0.0048-0.0056 gal of this product/1000 gal of water in the system. Repeat until control is achieved.

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PULP AND PAPER MILL SYSTEMS
Add this product to the system. Do not mix it with other additives, so as to avoid decomposition of this product due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal, and yeast growth in pulp, paper and paperboard mills add this product at levels of 0.15-0.50 lb/in (dry) of pulp or paper produced. Addition can be continuous or intermittent, depending upon the type of system and the severity of contamination. Addition is via a metering pump at a point in the system that will ensure uniform distribution of the product in the mass flow. Where applicable, such as the beakers, Jordan inlet or discharge, break chests, furnish chest, savelasts and white water tanks.

Heavily fouled systems must first be boiled out, then treated with 0.15-0.35 lb/in. of this product / ton (dry) of paper or pulp as necessary for control.

Moderately fouled systems should be treated continuously with 0.30-0.60 lb/in. of this product / ton (dry) of paper or pulp until the slime accumulation is controlled. Subsequent recharges can then be reduced to 0.15-0.36 lb/in. of this product / ton (dry) of paper on a continuous or intermittent basis as needed for control. Undisolved 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 0.15-0.36 lb/in. of this product / ton (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

NON-POURABLE REVERSE OSMOSIS SYSTEMS
For controlling bacteria, fungi and algae slimes in non-pourable Reverse Osmosis systems and peripheral equipment, add this product to the system inlet water or before any other contamination area ahead of the reverse osmosis unit. This product should be added with a metering pump on an intermittent basis depending on the severity of contamination and the guidelines specified by the membrane manufacturer for this product. Add this product at the rate of 0.01 to 0.1 lbs. (1 to 120 ppm) per 1000 gal. of feed water. During use of this product both permeate and reject water should be directed to the drain. Once treatment is completed, mixing with feed water should continue until conductivity values in the permeate are at or below values before treatment with this product. Failed systems must be cleaned before treatment is begun.

FOR CONTROL OF BACTERIA Initial Dose: When the system is noticeably fouled, add this product at the rate of 0.05 to 1.0 lbs. (0.5 to 120 ppm) per 1000 gal. of feed water. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

Subsequent Dose: When microbial control is achieved, add this product at the rate of 0.05 lbs. (3 to 12 ppm) per 1000 gal. of feed water as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

FOR CONTROL OF FUNGI AND ALGAE Initial Dose: When the system is noticeably fouled, add this product at the rate of 0.5 to 1.0 lbs. (60 to 120 ppm) per 1000 gal. of feed water. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

Subsequent Dose: When microbial control is achieved, add this product at the rate of 0.3 to 1.0 lbs. (30 to 120 ppm) per 1000 gal. of feed water as needed to maintain control as specified by guidelines recommended by the membrane manufacturer.

METALWORKING FLUIDS CONTAINING WATER
This product is effective in metal-working fluid concentrates which have been diluted in water at ratios of 1:100 to 1:4. For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metalworking fluids containing water, add this product to the fluid in the collection tanks.

Initial or Slug Dose: When the system is noticeably fouled, add this product at the rate of 0.25 gal. (2.6 lb) per 1000 gal. of metalworking fluid in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add this product at the rate of 0.1 to 0.2 gal. (1.0 to 2.1 lbs.) per 1000 gal. of metalworking fluid per day, or as needed to maintain control. Additions of this product can be made continuously or intermittently. Slug the system as required.

BREWERY PASTEURIZING WATER
For controlling (or inhibiting) the growth of bacteria, fungi and yeasts in brewhery pasteurizing water systems, add this product to the point in the system to ensure uniform mixing.

Initial or Slug Dose: When the system is noticeably fouled, add this product at the rate of 0.25 gal. (2.6 lbs.) per 1000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add this product at the rate of 0.1 to 0.2 gal. (1.0 to 2.1 lbs.) per 1000 gal. of water per day, or as needed to maintain control. Additions of this product can be made continuously or intermittently. Slug the system as required.

ENHANCED OIL RECOVERY SYSTEMS
Add this product separately to the system. Do not mix it with other additives, so as to avoid decomposition of this product due to the high pH of many additive formulations. Addition of this product may be made at the free water knockout, before or after the injection pumps and injection well headers. For controlling slime-forming bacteria, oil-staining producing bacteria, yeasts, and fungi in oil field water, polymer or micellar fluids, water-disposal systems, or other oil field water systems, add 1-4 lbs. of product (0.1-1.4 gal. of the product 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 10-60 lbs. of product (0.8-4.6 gal. of the product per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1-15 lbs. of the product (0.1-1.2 gal. of the product 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 lbs. of product (0.8-6.4 gal. of the product per 2400 barrels of water) intermittently for 4-6 hours per day and from 1-4 times per week, or as needed depending on the severity of contamination.

NOTE: For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 15-80 lbs. of product (1.2-6.4 gal. of the product per 2400 barrels of water). Additions of this product should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to reduce loss of viscosity.

AIR-WASHER SYSTEMS
Add 0.005-0.05 gallons of this product / 1000 gal. of water in the system, depending on the severity of contamination, to control slime-forming bacteria and fungi in industrial air-washing systems.

INTERMITTENT OR SLUG METHOD
Initial Dose: When the system is noticeably fouled, add 0.003-0.05 gal. of product / 1000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.0015-0.04 gal. of product / 1000 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 0.003-0.05 gal. of product / 1000 gal. of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0015-0.04 gal. of this product / 1000 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.

INDUSTRIAL PRESERVATION APPLICATIONS
This product may be used to reduce biological contamination in raw materials and/or products such as: aqueous paints and coatings, polymers, starches, adhesives, latex and resin emulsions, adhesives, caulks, process water, along with specialty industrial products including: ink, polishes, waxes, detergents, and cleaners.

TO USE IN MICROBIOLOGICAL CONTAMINATION: Add this product to the material or product at a concentration of 25 to 2,000 ppm by weight. This concentration is equivalent to 2.8 to 200 fluid ounces of this product per 1,000 gal. or 24 to 7,120 ml. of this product per 1,024 gal. of water. The required concentration will depend on the material being treated and the level of contamination present.

PUBLICLY-OWNED TREATMENT WORKS TO CONTROL COLIFORM AND OTHER BACKS
Add this product at a concentration of 1.0 to 10.0 ppm by weight of water being treated, depending on the severity and contamination in the system. Additions should be CONTINUOUS and should be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add this product 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 0.4-5.5 ppm of this product by weight of water treated. Chlorination should result in a minimum dechlorable residual (i.e., greater than zero but less than the NDEP's permit level) Addition should be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. This product should be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

OILFIELD AND PETROCHEMICAL SYSTEMS
This product may be used either in slug treatment or in continuous application. Dosages may vary from as much as 200 ppm of the product in slug application to 10 to 50 ppm of this product in continuous treatment (144 pts. of the product / per 1,000 gal. of water equals approximately 30). A typical slug treatment is to add 1 pt. of the product per 1,000 gal. at intervals as needed to prevent growth of microrganisms. Badly fouled systems may be slug treated to establish control, followed by continuous treatment to maintain control.

EQUIPMENT CLEANING
This product can be used to kill microorganisms present in solution or growing on the surfaces of process equipment such as reaction vessels, storage tanks and containers, piping and hoses. For standard cleaning of equipment, add 50 to 250 ppm by weight of the product in an aqueous solution, to process piping and equipment. Heavily fouled solutions or equipment may be treated with up to 2000 ppm of this product. After treating process equipment with this product, allow this product solution to be in contact with surfaces for up to four hours. If bleach is being used for cleaning purposes at 60-200 ppm available chlorine, this product can be used as part of a dual treatment program at 50-100 ppm by weight, in combination with sodium hypochlorite. Treat process equipment with chlorine first. Follow this treatment with this product. Do not combine concentrated sodium hypochlorite solution with this product.