01-NOV-1998

# CALLAWAY BX-20

DBNPA

A MICROBIOCIDAL BACTERICIDE, FUNGICIDE
ALGICIDE AND SLIMICIDE, IN TREATING
RECIRCULATING COOLING WATER IN INDUSTRIAL
COOLING SYSTEMS AND FOR PAPER MILLS, NON-MARINE
USES IN ENHANCED OIL RECOVERY SYSTEMS, AND
METAL-WORKING CUTTING FLUIDS CONTAINING WATER

GUARANTEE
2,2-Dibromo-3-nitrilopropionamide 20%

COMMERCIAL

DANGER

POISON CORROSIVE

DANGER - CORROSIVE TO EYES AND SKIN

REGISTRATION NO. 25107.01
PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING

NET CONTENTS 300 KG

CALLAWAY CHEMICAL COMPANY
A unit of Vulcan Chemicals
a division of Vulcan Materials Company
6003 Veterans Parkway
Columbus Georgia 31909-4663, USA
Telephone: 706 576-6412

## PRECAUTIONS

HAZARD TO HUMANS AND DOMESTIC ANIMALS
DANGER
CORROSIVE TO EYES AND SKIN

POTENTIAL SKIN SENSITIZER

May be harmful or fatal if swallowed or inhaled. Do not get in eyes, on skin, or on clothing. Do not inhale vapours or spray mist. During mixing/application wear long-sleeve shirt, long pants, full face protection and chemical-resistant gloves. Wear a respirator if the area is not well ventilated and during cleaning, maintenance and repair activities. Wash face and hands before eating, drinking, smoking and using the toilet. Wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product is highly toxic to fish, freshwater and marine invertebrates, and algae. 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 treated water into estuaries, lakes, streams, ponds, or public waters.

CHEMICAL AND PHYSICAL HAZARDS

Reaction with strong reducing agents may be explosive. Avoid misting.

FIRST AID:

If in eyes: Flush eyes immediately with plenty of water for at least 15 minutes and get medical attention at once.

If on skin: Wash with soap and plenty of water. Wash contaminated clothing before reuse.

If inhaled: Remove person to fresh air immediately. Get him quiet and warm; apply artificial respiration if necessary. Get medical attention at once.

If swallowed: Give large amounts of water to dilute the toxicant. If immediately available, demulcents like milk, vegetable oil or egg whites can be given. Do not induce vomiting as it is likely to cause considerable mucosal damage.

NOTE: The container, product label or product name and PCP number should be brought to the hospital/physician for emergency treatment.

TOXICOLOGICAL INFORMATION: Dilution of an ingested corrosive is a safer first aid treatment than emesis.

WASH THOROUGHLY AFTER HANDLING

STORAGE: To maintain product quality store in a dark, cool, dry, well-ventilated area, not above 30'C, rotate and use stock within three months. Store in well-closed original containers, away from energy sources, combustible organic materials and oxidizers. Do not contaminate water, food or feed by storage or disposal.

DISPOSAL:

1. Rinse the emptied container thoroughly and add the rinsings to the treatment site.

2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal or reconditioning.

3. Dispose of the container in accordance with provincial requirements.

4. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the provincial regulatory authority or the registrant.

5. For SPILLS: When handling or dealing with spills, use impact-resistant goggles with side shields, or face shield; wear body-covering clothes, including impervious chemical-resistant gloves and boots; use a dust respirator if misting occurs. For small spills, recover free product. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described for pesticide disposal. If drum contents are contaminated or decomposing, isolate unsealed drum in the open or in a well ventilated area; flood with 10% sodium bicarbonate solution and large volumes of water if necessary. DO NOT FLUSH INTO SURFACE STREAMS. INFORM THE PROVINCIAL REGULATORY AUTHORITY OR THE REGISTRANT.

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

NOTICE TO BUYER: Seller’s guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

1.20 KG CALLAWAY BX-20 LIQUID per L

DO NOT SHIP WITH FOOD, FEEDS, DRUGS OR CLOTHING

## DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with it's labelling.

DIRECTIONS FOR TREATING INDUSTRIAL RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING

NOTE: Add CALLAWAY BX-20 separately to the system. Do not mix it with other additive, so as to avoid decomposition of CALLAWAY BX-20 due to the high ph of many additive formulations. Add CALLAWAY BX-20 to the basin (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 treatment is begun, and the in system retention time. Optimum performance with this product is achieved by continuous or intermittent treatment. If "shock" treatment is used, the blowdown should be discontinued for 24-48 hours.

FOR CONTROL OF BACTERIA

Add 0.00095-0.0095L of CALLAWAY BX-20/1000 L of water in the system depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, add 0.0048-0.0095L of CALLAWAY BX-20/1000 L of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.0024-0.0095L CALLAWAY BX-20/1000L 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 0.0048-0.0095L of CALLAWAY BX-20/1000 L of water to the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.00095-0.0048L of CALLAWAY BX-20/1000 L 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 0.029-0.095 L of CALLAWAY BX-20/1000 L of water in the system depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, add 0.048-0.095L of CALLAWAY BX-20/1000L of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.029-0.095L CALLAWAY BX-20/1000 L of water to the system daily, or as needed to maintain control. Badly fouled systems must be cleaned before treatment 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 L of CALLAWAY BX-20/1000 L of water in the system.

Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 0.029-0.095L of CALLAWAY BX-20/1000 L of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

DIRECTIONS FOR TREATING PULP AND PAPER MILL SYSTEMS:

NOTE: Add CALLAWAY BX-20 separately to the system. Do not mix it with other additives, so as to avoid decomposition of CALLAWAY BX-20 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 CALLAWAY BX-20 at levels of 0.075-0.210 KG/tonne (dry) or 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 CALLAWAY BX-20 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 first be boiled out, then treated with 0.075-0.175 KG of CALLAWAY BX-20/tonne (dry) of paper or pulp as necessary for control. Moderately fouled systems should be treated continuously with 0.175-0.210 KG of CALLAWAY BX-20/tonne (dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates can then be reduced to 0.075-0.175 KG of CALLAWAY BX-20 / tonne (dry) of paper on 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 0.75-0.175 of CALLAWAY BX-20/tonne (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

DIRECTIONS FOR TREATING ENHANCED OIL RECOVERY SYSTEMS (NON-MARINE USES)

NOTE: Add CALLAWAY BX-20 separately to the system. Do not mix with other additives, so as to avoid decomposition of CALLAWAY BX-20 due to the high pH of many additive formulations. Addition of CALLAWAY BX-20 may be made at the free water knockouts, before or after the injection pumps and injection well headers.

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 CALLAWAY BX-20 (0.38-24.23 L of CALLAWAY BX-20 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 10-80 ppm CALLAWAY BX-20 (3.03-24.23 L of CALLAWAY BX-20 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1-15 ppm CALLAWAY BX-20 (0.38-4.54 of CALLAWAY BX-20 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 CALLAWAY BX-20 (3.03-24.23 L of CALLAWAY BX-20 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. NOTE: For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 15-80 ppm CALLAWAY BX-20 (4.54-24.23 L of CALLAWAY BX-20 per 2400 barrels of water). Additions of CALLAWAY BX-20 should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to prevent loss of viscosity.

DIRECTIONS FOR TREATING METAL - WORKING CUTTING FLUIDS CONTAINING WATER

CALLAWAY BX-20 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 metal working fluids containing

water, add this product 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 CALLAWAY BX-20 at the rate of 0.25 L (318 g) per 1000 L of metal working fluid in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add CALLAWAY BX-20 at the rate of 0.1 to 0.2 litres (127 to 254 grams) per 1000 litres of metal working fluid per day, or as needed to maintain control. Additions of CALLAWAY BX-20 can be made continuously or intermittently. Slug the system as required

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