FORMULA 3040
DBPA

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

ACTIVE INGREDIENT: 2,2-Dibromo-3-nitropropanonitrile 98% INERT INGREDIENTS: 2% TOTAL: 100%

ENVIRONMENTAL HAZARDS
This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of waste. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems or any other plumbing system discharging to local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

CHEMICAL AND PHYSICAL HAZARDS
Reaction with strong reducing agents may be explosive. Avoid combustion and dusting.

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

STORAGE
Store in a dark, cool, dry, well-ventilated area, in well-closed original containers, away from energy sources, combustible organic materials, oxidizers, and mercury. Do not breathe mist or vapor. Use with adequate ventilation.

CONTAINER DISPOSAL
Complete empty liner by shaking and tipping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be re-used, dispose of in the same manner if drum is not contaminated and can be re-used, offer for recycling or reconditioning.

SPILLS
When handling or dealing with spills, use impervious-resistant gloves with side shields, or face shield; wear body-covering clothing, including impervious rubber gloves and boots; use a dust respirator if dusting occurs. Sweep up dry spills and dispose of as described for pesticide disposal. Cover spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described. When spill has contaminated equipment, isolates unseated drum in the open or in a well-ventilated area; flood with 10% sodium bicarbonate solution and large volumes of water if necessary.

WARRANTY
Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with label directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, expressed 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.

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

RECOMMENDED RECYCLING AND DISPOSAL
Do not use this product to treat cooling water in industrial or commercial cooling systems. Discharge to surface water may be hazardous.

TREATING RECKWILLING WATER IN INDUSTRIAL OR COMMERCIAL COOLING SYSTEMS
NOTE: Add FORMULA 3040 separately to the system. Do not mix it with other additives, so as to avoid decomposition or FORMULA 3040 due to the high pH of many additive formulations. Add FORMULA 3040 to the basin or any other point of uniform mixing. Additions 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 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 an amount of FORMULA 3040 to reach a concentration in the system of 0.2 - 2.3 ppm active ingredient, depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD
Initial Dose: When the system is noticeably fouled, add sufficient FORMULA 3040 to reach a concentration in the system of 1.2 - 2.3 ppm active ingredient. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.6 - 2.3 ppm FORMULA 3040 to 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 sufficient FORMULA 3040 to reach a concentration in the system of 1.2 - 2.3 ppm

Subsequent Dose: Maintain a concentration of 0.2 - 1.2 ppm FORMULA 3040 in the system. Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF BACTERIA
Add an amount of FORMULA 3040 to reach a concentration in the system of 0.2 - 2.3 ppm active ingredient, depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD
Initial Dose: When the system is noticeably fouled, add sufficient FORMULA 3040 to reach a concentration in the system of 1.2 - 2.3 ppm active ingredient. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.6 - 2.3 ppm FORMULA 3040 to 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 sufficient FORMULA 3040 to reach a concentration in the system of 1.2 - 2.3 ppm

Subsequent Dose: Maintain a concentration of 0.2 - 1.2 ppm FORMULA 3040 in the system. Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF ALGAE
Add an amount of FORMULA 3040 to reach a concentration of 0.2 - 2.3 ppm in the water, depending on the severity of the contamination.

INTERMITTENT OR SLUG METHOD
Initial Dose: When the system is noticeably fouled, add sufficient FORMULA 3040 to reach a concentration in the system of 1.2 - 2.3 ppm active ingredient. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.6 - 2.3 ppm FORMULA 3040 to 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 sufficient FORMULA 3040 to reach a concentration in the system of 1.2 - 2.3 ppm

Subsequent Dose: Maintain a concentration of 0.2 - 1.2 ppm FORMULA 3040 in the system. Badly fouled systems must be cleaned before treatment is begun.
TREATING BREWERY PASTEURIZATION WATER

For controlling (or inhibiting) the growth of bacteria, fungi or yeasts in brewery pasteurizing water systems, add FORMULA 3040 at a point in the system to insure uniform mixing.

Initial or Slug Dose: When the system is noticeably fouled, add sufficient FORMULA 3040 to achieve a concentration of 60.6 ppm active ingredient in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, maintain a concentration of 24.4 - 48.4 ppm FORMULA 3040 in the system, or as needed to maintain control. Additions of FORMULA 3040 product can be made continuously or intermittently. Slugs the system as required. Badly fouled systems must be cleaned before treatment is begun.

TREATING ENHANCED OIL RECOVERY SYSTEMS

NOTE: Add FORMULA 3040 separately to the system. Do not mix it with other additives, so as to avoid decomposition of FORMULA 3040 due to the high pH of many additive formulations. Additions of FORMULA 3040 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 molecular floods, water-disposal systems, or other oil field water systems, add sufficient FORMULA 3040 to achieve a concentration in feedwater of 0.2 - 16.0 ppm 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 2 - 16 ppm FORMULA 3040 continuously until the desired degree of control is achieved. Subsequently, treat with 0.2 - 3.9 ppm FORMULA 3040 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 2.0 - 16.0 ppm FORMULA 3040 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 3 - 16 ppm FORMULA 3040. Additions of FORMULA 3040 should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to reduce loss of viscosity.

DIRECTIONS FOR TREATING AIR-WASHER SYSTEMS

Add sufficient FORMULA 3040 to reach a concentration in the system of 0.35 - 22.1 ppm active ingredient, 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 sufficient FORMULA 3040 to reach a concentration in the system of 0.7 - 22.1 ppm active ingredient. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add sufficient FORMULA 3040 every 2 days to reach a concentration in the system of 0.35 - 10.9 ppm active ingredient, 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 sufficient FORMULA 3040 to achieve a concentration in the system of 0.7 - 22.1 ppm active ingredient.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.35 - 10.9 ppm active ingredient 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.

DIRECTIONS FOR INDUSTRIAL PRESERVATION APPLICATIONS

FORMULA 3040 may be used to reduce microbiological contamination in raw materials and/or products such as: aqueous paints and coatings, polymers, elastomers, adhesives, latex and resin emulsions, sizing, caulk, process water, along with specialty industrial products including: inks, polishes, waxes, detergents, and cleaners.

TO REDUCE MICROBIOLOGICAL CONTAMINATION

Add FORMULA 3040 to the raw material or product at a concentration of 5 to 408 ppm by weight. This concentration is equivalent to 0.036 to 2.844 lbs. FORMULA 3040 per 1,000 gallons. The required concentration will depend on the material being treated and the level of contamination present.

DIRECTIONS FOR TREATING PUBLICLY-OWNED TREATMENT WORKS TO CONTROL COLIFORM AND OTHER BACTERIA

Add sufficient FORMULA 3040 to reach a concentration in the system of 0.2 to 2.0 ppm active ingredient 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 FORMULA 3040 to the system in a location where contact time will be 30 minutes or greater before reaching the outlet.

TO USE AS A CO-TREATMENT WITH CHLORINE

Add sufficient FORMULA 3040 to reach a concentration in the system of 0.1 to 0.3 ppm FORMULA 3040 active ingredient by weight of water treated. Chlorination should result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level). Addition should be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. FORMULA 3040 should be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outlet.

DIRECTIONS FOR TREATING OILFIELD AND PETROCHEMICAL SYSTEMS

FORMULA 3040 may be used either in slug treatment or in continuous application. Dosages may vary from as much as 40 ppm of FORMULA 3040 in slug application to 2 to 10 ppm of FORMULA 3040 in continuous treatment (0.61 lbs. FORMULA 3040 per 1,000 gallons of water equals approximately 7 ppm).

A typical slug treatment is to add 0.25 lbs. of FORMULA 3040 per 1,000 gallons at intervals as needed to prevent growth of microbial slimes. Badly fouled systems may be slug treated to establish control, followed by continuous treatment to maintain control.

DIRECTIONS FOR TREATING FRACTURING FLUIDS

FORMULA 3040 reduces bacterial contamination and degradation of fracturing gels and fluids used as well stimulants in the oil and gas industry. FORMULA 3040 may be added during pre-mixing of the fracturing fluid or (in the case of direct microinjection systems) an aqueous solution may be added by direct injection at the head during the fracturing procedure.

FREQUENCY AND DOSE:

FORMULA 3040 should be used for each fracturing operation to ensure best results. FORMULA 3040 should be added at a rate of 2 to 3 lbs. per 10,000 gallons (approximately 24 to 35 ppm) depending on the quality of the makeup water.