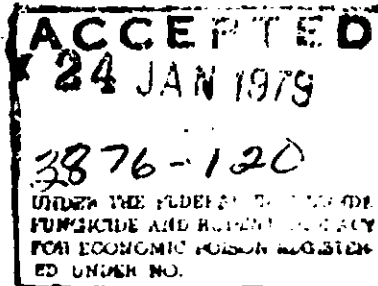


BETZ®

ER-10



Contents: LIQUID

Active ingredient:
2, 2-dibromo-3-nitrilopropionamide 20.0%
Inert Ingredients* 80.0%

*Inert ingredients include solubilizing and dispersing agents

WEIGHT PER GALLON OF PRODUCT
10.6 Pounds (60F)

EPA Reg. No 3876-120

NET WEIGHT AND VOLUME
As Marked on Container

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Causes severe burns of eyes. May burn the skin. May be harmful or fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear chemical workers' goggles when handling. Do not inhale fumes or vapor.

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. Get medical attention if irritation persists.

If swallowed, induce vomiting by sticking finger down the throat or by giving soap or strong salty water to drink. Repeat until vomit is clear. Call a physician. Never give anything by mouth to an unconscious person.

WASH THOROUGHLY AFTER HANDLING.

ENVIRONMENTAL HAZARDS

Do not discharge into lakes, streams, ponds or public waters unless in accordance with a NPDES permit.

For guidance contact your Regional Office of the EPA. 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.

DIRECTIONS FOR USE

GENERAL CLASSIFICATION

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

NOTE: Add ER-10 SEPARATELY to the system. Do NOT mix it with other additives, to avoid decomposition of ER-10 due to the high pH of many additive formulations.

INDUSTRIAL COOLING TOWERS RECIRCULATING WATER

Add ER-10 to the basin for any other point of uniform mixing). Addition should be made continuously or intermittently, depending on the severity of 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, blowdown should be discontinued for 24 to 48 hours.

FOR CONTROL OF BACTERIA

Add 0.00095 gal (0.01 lb) to 0.0095 gal (0.1 lb) ER-10 per 1,000 gal of water in the system, depending on the severity of contamination.

KEEP CONTAINER COVERED — PROTECT FROM FREEZING

INTERMITTENT
INITIAL DOSE
add 0.0048 g
per 1,000 gal of
water. When
control is achieved
SUBSEQUENT
treatment, add 0.029 g
ER-10 per gal
or as needed.
BADLY FOUL
treatment is begun

CONTINUOUS
INITIAL DOSE
add 0.0048 g
per 1,000 gal
SUBSEQUENT
treatment, add a continuous
0.029 g per 1,000 gal (0.05 lb
per 100 lb)
system per
BADLY FOUL
treatment is

FC
Add 0.029 g
per 1,000 gal of
water. The severity of
contamination

INTERMITTENT
INITIAL DOSE
add 0.048 g
per 1,000 gal
control is achieved
SUBSEQUENT
treatment, add 0.029 g
per 1,000 gal of
water to maintain
BADLY FOUL
treatment is

CONTINUOUS
INITIAL DOSE
add 0.048 g
per 1,000 gal of
SUBSEQUENT
treatment, add a
continuous 0.029 g
per 1,000 gal (1
lb per 100 lb)
system per
BADLY FOUL
treatment is

METALWORK

This product
controls white
rust, yellow
rust, and
For controlling
fungi and yeasts
in cooling tower
fluids contain

BETZ

ACCEPTED
24 JAN 1979
876-120
UNDER THE FEDERAL INSECTICIDE AND FUNGICIDE ACT AND ECONOMIC POISON REGISTRATION ACT UNDER NO.

ENVIRONMENTAL HAZARDS

Do not discharge into lakes, streams, ponds or public water supplies in accordance with a NPDES permit.

Contact your Regional Office of the EPA. Do not use on plants toxic to fish. Do not contaminate water used for drinking equipment or disposal of wastes.

Use only as specified on this label.

DIRECTIONS FOR USE

GENERAL INFORMATION

Follow all directions of Federal law to use this product in accordance with its labeling.

DO NOT MIX SEPARATELY to the system. Do NOT mix with other additives, to avoid decomposition and the high pH of many additive formulations.

USE IN INDUSTRIAL COOLING TOWERS AND CIRCULATING WATER

Use in a basin for any other point of uniform flow. Treatment should be made continuously or intermittently depending on the severity of contamination. Treatment is begun, and the retention time is determined.

Best performance with this product is attained with continuous or intermittent treatment. If "shock" treatment is used, blowdown should be discontinued immediately.

CONTROL OF BACTERIA

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metal working fluids containing water, add ER-10 to the fluid in the system, depending on the severity of contamination.

PROTECTION FROM FREEZING

INTERMITTENT OR SLUG METHOD

INITIAL DOSE: When the system is noticeably fouled, add 0.0048 gal (0.05 lb) to 0.0095 gal (0.1 lb) ER-10 per 1,000 gal of water in the system. Repeat until control is achieved.

SUBSEQUENT DOSE: When microbial control is evident, add 0.0024 gal (0.025 lb) to 0.0095 gal (0.1 lb) ER-10 per 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 0.0048 gal (0.05 lb) to 0.0095 gal (0.1 lb) ER-10 per 1,000 gal of water to the system.

SUBSEQUENT DOSE: Maintain this level by pumping a continuous feed of 0.00048 gal (0.005 lb) to 0.0048 gal (0.05 lb) ER-10 per 1,000 gal of water in the system per day.

BADLY FOULED SYSTEMS must be cleaned before treatment is begun.

FOR CONTROL OF ALGAE

Add 0.029 gal (0.3 lb) to 0.095 gal (1.0 lb) ER-10 per 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 gal (0.5 lb) to 0.095 gal (1.0 lb) ER-10 per 1,000 gal of water in the system. Repeat until control is achieved.

SUBSEQUENT DOSE: When algal control is evident, add 0.029 gal (0.3 lb) to 0.095 gal (1.0 lb) ER-10 per 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 gal (0.5 lb) to 0.095 gal (1.0 lb) ER-10 per 1,000 gal of water to the system.

SUBSEQUENT DOSE: Maintain this treatment level by pumping a continuous feed of 0.029 gal (0.3 lb) to 0.095 gal (1.0 lb) ER-10 per 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 metal working fluid concentrations 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 ER-10 to the fluid in the

collection tank. Additions should be made with a metering pump.

INITIAL OR SLUG DOSE: Where the system is just noticeably fouled, add 0.25 gal (2.65 lb) ER-10 per 1,000 gal of metal-working fluid to the system. Repeat until control is achieved.

SUBSEQUENT DOSE: When microbial control is evident, add 0.1 gal (1.06 lb) to 0.2 gal (2.12 lb) ER-10 per 1,000 gal of metal-working 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 mycellar floods, water disposal systems, or other oil field water systems, add 1 to 80 ppm ER-10 (0.1 gal or 1.06 lb to 6.4 gal or 67.8 lb ER-10 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 to 80 ppm ER-10 (0.8 gal or 8.48 lb to 6.4 gal or 67.8 lb ER-10 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1 to 15 ppm ER-10 (0.1 gal or 1.06 lb to 1.2 gal or 12.72 lb ER-10 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 to 80 ppm ER-10 (0.8 gal or 8.48 lb to 6.4 gal or 67.8 lb ER-10 per 2400 barrels of water) intermittently for 4 to 8 hours per day, and from 1 to 4 times per week or as needed depending on the severity of contamination.

Addition of ER-10 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 to 80 ppm ER-10 (1.2 gal or 12.72 lb to 6.4 gal or 67.8 lb ER-10 per 2400 barrels of water). Additions of ER-10 should be made with a metering pump IMMEDIATELY after preparation of the aqueous biopolymer solution to prevent loss of viscosity.

STORAGE AND DISPOSAL

Keep container tightly closed. Do not reuse empty container. Destroy it by burying it with waste in an approved landfill area.

FOR INDUSTRIAL USE ONLY

Technical advice regarding specific problems is available from BETZ.

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PROTECTION FROM FREEZING

BETZ Laboratories, Inc. / TREVOSE, PENNSYLVANIA / 19047

INTERMITTENT OR SLUG METHOD

INITIAL DOSE When the system is noticeably fouled, add 0.0048 gal (0.05 lb) to 0.0095 gal (0.1 lb) ER-10 per 1,000 gal of water in the system. Repeat until control is achieved.

SUBSEQUENT DOSE When microbial control is evident, add 0.0024 gal (0.025 lb) to 0.0095 gal (0.1 lb) ER-10 per 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 0.0048 gal (0.05 lb) to 0.0095 gal (0.1 lb) ER-10 per 1,000 gal of water to the system.

SUBSEQUENT DOSE: Maintain this level by pumping a continuous feed of 0.00048 gal (0.005 lb) to 0.0048 gal (0.05 lb) ER-10 per 1,000 gal of water in the system per day.

BADLY FOULED SYSTEMS must be cleaned before treatment is begun.

FOR CONTROL OF ALGAE

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INTERMITTENT OR SLUG METHOD

INITIAL DOSE: When the system is noticeably fouled, add 0.048 gal (0.5 lb) to 0.095 gal (1.0 lb) ER-10 per 1,000 gal of water in the system. Repeat until control is achieved.

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BADLY FOULED SYSTEMS must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

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SUBSEQUENT DOSE: Maintain this treatment level by pumping a continuous feed of 0.029 gal (0.3 lb) to 0.095 gal (1.0 lb) ER-10 per 1,000 gal of water in the system per day.

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collection tank. Additions should be made with a metering pump.

INITIAL OR SLUG DOSE Where the system is just noticeably fouled, add 0.25 gal (2.65 lb) ER-10 per 1,000 gal of metal-working fluid to the system. Repeat until control is achieved.

SUBSEQUENT DOSE When microbial control is evident, add 0.1 gal (1.06 lb) to 0.2 gal (2.12 lb) ER-10 per 1,000 gal of metal-working fluid per day, or as needed to maintain control. Additions can be made continuously or intermittently. Slug the system as required.

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For controlling slime-forming bacteria, sulfide-producing bacteria, yeasts and fungi in oil field water, polymer or mycellar floods, water disposal systems, or other oil field water systems, add 1 to 80 ppm ER-10 (0.1 gal or 1.06 lb to 6.4 gal or 67.8 lb ER-10 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 to 80 ppm ER-10 (0.8 gal or 8.48 lb to 6.4 gal or 67.8 lb ER-10 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1 to 15 ppm ER-10 (0.1 gal or 1.06 lb to 1.2 gal or 12.72 lb ER-10 per 2400 barrels of water) continuously or as needed to maintain control.

INTERMITTENT OR SLUG METHOD

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NOTE: For control of bacteria, yeast and fungi in aqueous solutions of biopolymer used in flooding operations, add 15 to 80 ppm ER-10 (1.2 gal or 12.72 lb to 6.4 gal or 67.8 lb ER-10 per 2400 barrels of water). Additions of ER-10 should be made with a metering pump IMMEDIATELY after preparation of the aqueous biopolymer solution to prevent loss of viscosity.

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