



MTC-10

ACTIVE INGREDIENT

Methylene bis-thiocyanate

10.0%

INERT INGREDIENTS

90.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER****PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS****DANGER** Causes eye irritation and severe skin irritation. Harmful or fatal if swallowed or absorbed through skin. Do not get in eyes, on skin, or on clothing. Avoid contact with skin. Wear goggles or face shield and rubber gloves when handling.**FIRST AID** If in eyes, flush with plenty of water. If on skin, wash with soap and water and flush with plenty of water. If in eyes, flush immediately with copious amounts of clean water for 15 to 30 minutes. Get medical attention immediately. If inhaled, move to fresh air and get medical attention. Control breathing if necessary. If swallowed, drink plenty of water and do not induce vomiting. If you are pregnant, consult your physician.**ENVIRONMENTAL HAZARDS** This pesticide is toxic to fish. Keep out of streams, rivers, ponds, lakes, and other bodies of water. Do not apply directly to water or to soil adjacent to water. Do not contaminate water, soil, or other aquatic life. Do not apply to crops, animals, or humans.**PHYSICAL AND CHEMICAL HAZARDS** This pesticide is highly flammable. It is a strong irritant to the eyes, nose, and throat. It is a strong irritant to the skin. It is a strong irritant to the respiratory system. It is a strong irritant to the mucous membranes.**DIRECTIONS FOR USE**

Read and follow label directions. Do not use this product in a manner inconsistent with the label.

PULP AND PAPER MILLS For use in pulp and paper mills, apply MTC-10 to the wastewater treatment system. Apply MTC-10 to the wastewater treatment system at a concentration of 10 to 20 ppm. Repeat treatment as necessary. Do not use MTC-10 in the presence of chlorine.**COOLING TOWER SYSTEMS** For use in cooling tower systems, apply MTC-10 to the cooling tower basin. Apply MTC-10 to the cooling tower basin at a concentration of 40 to 60 ppm. Repeat treatment as necessary. Do not use MTC-10 in the presence of chlorine.**STORAGE AND DISPOSAL****PROHIBITIONS** Do not contaminate water, food, or feed by storage or disposal. Emptying is prohibited. Do not reuse empty container.**PESTICIDE DISPOSAL** Pesticide, spray mixture, or residue that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal in a safe place away from water supplies.**CONTAINER DISPOSAL** Triple rinse, or equivalent, and dispose in a landfill approved for pesticide containers in a safe place.**GENERAL** Do not contaminate water, food, or feed by storage or disposal. Do not use in a manner inconsistent with the label.

Manufactured by

Buckman Laboratories, Inc.
Memphis, Tenn. 38108, U.S.A.

EPA Reg. No. 1448-94

EPA Est. No. 1448-TN-1



Product Data

June 1, 1981

Bulletin No. A74W

MTC-10

For Slime Control in Paper Mills

MTC-10 is used to control bacterial and fungal slime on pulp, paper, and paperboard machines. It can be used alone or to supplement other Busan microbicides recommended for microbiological slime control in pulp and paper mills. MTC-10 is compatible with most pulp mill stocks and paper machine furnishes. It is effective in the pH range generally employed in the manufacture of pulp and paper.

MTC-10 is composed of substances that have been allowed for use in the manufacture of paper and paperboard under §176.300 *Slimecides* of the U.S. Food and Drug Administration Regulation. It has also been accepted for registration by the U.S. Environmental Protection Agency (EPA Reg. No. 1448-34).

PRODUCT CHARACTERISTICS

MTC-10 is a liquid and is standardly packaged in nonreturnable drums with bungs. It can be handled and stored in stainless steel, aluminum, polyethylene, polypropylene, glass, and fiberglass-reinforced polyester equipment. The composition and typical physical characteristics of the product are as follows:

Active ingredient: Methylene bis(thiocyanate)	10%
Inert ingredients	90%
Density at 25 °C (77 °F)	0.942 g/mL
Approximate weight per gallon	7.85 lb
Approximate volume per kilogram	1060 mL
Approximate volume per pound	480 mL
Flashpoint (Tagliabue closed cup)	53 °C (127 °F)
pH (100 parts per million in water)	4-5

MTC-10 is severely irritating to eyes and skin. It is also moderately toxic by ingestion in single doses. Workmen handling the product should wear rubber gloves and goggles or face shield and should avoid contact with eyes and skin. Avoid contamination of food. Observe other precautions shown on the container label.

APPLICATIONS

MTC-10 can be fed into pulp and paper manufacturing systems directly from its shipping container by use of chemical metering pumps. It can also be dispensed in suitable measuring containers or by means of drip-feed devices. MTC-10 should be added at a point where adequate mixing or dispersion of the product with the substrate being treated is assured.

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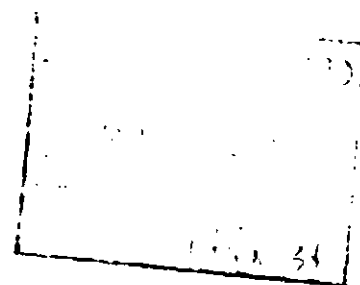
For control of bacterial and fungal slime in pulp and paper manufacturing systems, MTC-10 is applied at levels of 0.05 to 1.0 lb (22.7 to 454 g) per ton of dry pulp or paper produced. This is equivalent to 0.8 to 16.3 fluid ounces per ton of production. Additions can be made continuously or intermittently, as required to control slime. Typical application rates are 0.1 to 0.5 lb per ton (45 to 225 g) of production on a dry weight basis for 2 to 4 hour treatment periods every 8, 12, or 24 hours. The use level, duration of treatment, and frequency of treatment should be adjusted higher or lower within the recommended ranges as required to achieve optimum control of slime accretion.

In paper machine systems best results are generally obtained by adding MTC-10 to the white water (back water) or stock going to the fan pump. However, improved slime control can sometimes be obtained by supplementally treating contaminated pulp, secondary fiber, broke, or other furnish components with MTC-10 or with another Busan microbicide. Feed rates for supplemental treatments with MTC-10 should be 0.1 to 0.5 lb (45 to 225 g) per ton of furnish (dry weight basis).

Stock or slush pulp may require treatment with a microbicide to preserve the pulp and to prevent contamination of papermaking systems. Pulp that may be held for 8 hours to 1 week should be treated. MTC-10 can be used at levels of 0.5 to 1.0 lb (8 to 16.3 fluid ounces) or 225 to 450 g per ton of dry stock.

Responsible for use in the U.S.A. based on tests performed by the manufacturer. The use of the product is based on the manufacturer's recommendation. It is suggested that the user should make tests to determine the effect of such use on the stock. The manufacturer is not responsible for any damage resulting from the use of the product as such, or in combination with other materials. This product should be used as a general guide only and should not be considered as a substitute for professional advice.

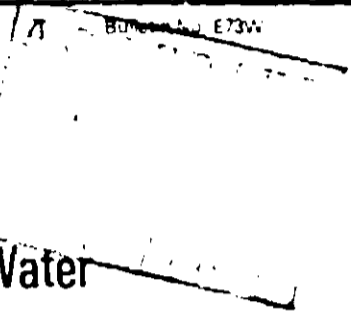
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Product Data

June 1, 1981



MTC-10 For the Control of Bacteria and Fungi in Cooling Water

MTC-10 is used to prevent bacterial and fungal slime, and to control deposits associated with bacterial and fungal growth in commercial and industrial recirculating cooling water systems.

PRODUCT CHARACTERISTICS

MTC-10 is a liquid and is standardly packaged in nonreturnable drums with bungs. It can be handled and stored in stainless steel, aluminum, polyethylene, polypropylene, glass, and fiberglass-reinforced polyester equipment. The composition and typical physical characteristics of the product are as follows:

Active ingredient: Methylene bis(thiocyanate)	10%
Inert ingredients	90%
Density at 25 °C (77 °F)	0.942 g/mL
Approximate weight per gallon	7.85 lb
Approximate volume per kilogram	1060 mL
Approximate volume per pound	480 mL
Flashpoint (Tagliabue closed-cup)	53 °C (127 °F)
pH (100 parts per million in water)	4-5

MTC-10 is severely irritating to eyes and skin. It is also moderately toxic by ingestion in single doses. Workmen handling the product should wear rubber gloves and goggles or face shield and should avoid contact with eyes and skin. Avoid contamination of food. Observe other precautions shown on the container label.

METHODS OF APPLICATION

MTC-10 can be fed directly into cooling water systems from its shipping container by use of chemical-metering pumps. It can be dispensed in suitable measuring containers or by means of drip-feed devices. Addition should be made at points of maximum agitation to insure dispersion of MTC-10 in the mass of circulating water to be treated.

Badly fouled cooling water systems should be cleaned thoroughly to remove old slime and deposits before treatment with MTC-10 is begun. After it is cleaned, the system should be drained, flushed, and filled with clean water. Maintenance treatment to prevent further accumulation of slime and deposits should be started as described below.

To control the growth of bacteria and fungi on cooling towers, in heat exchangers, in closed-looped circulating water systems, and in other parts of recirculating cooling water systems, MTC-10 should be

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added initially at dosages of 5.5 to 6.8 fluid ounces per 1000 gallons (40 to 50 ppm MTC-10 based on weight) of water in the system. Repeat initial dosage until control is evident. Then treat the system with 0.7 to 3.4 fluid ounces of MTC-10 per 1000 gallons (5 to 25 ppm MTC-10 based on weight) of water in the system. Additions should be made every 2 to 5 days depending on the relative amount of bleedoff and severity of the microbiological problems.

MTC-10 can be used as part of a coordinated treatment program that includes the application of scale and corrosion inhibitors to cooling water systems. For control of the total spectrum of microbiological problems often encountered in cooling water systems, e.g., microbiological induced corrosion and deterioration of wood by microorganisms, supplemental addition of alternating microbicides is suggested with the routine use of MTC-10.

MTC-10 is compatible with traditional procedures to prevent scale and corrosion in cooling water systems. It is especially effective in controlling the growth of bacteria and fungi in systems operated at pH levels up to 8.0.

Recommendations given in this Bulletin are based on tests believed to be reliable. However, the use of the product is beyond the control of Buckman Laboratories, Inc. and no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The user must assume all responsibility, including injury or damage, resulting from misuse of the product as such or in combination with other materials. This Bulletin is not to be taken as a license to operate under or in violation of any patent.

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