

U.S. DEPARTMENT OF AGRICULTURE
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 5204-2
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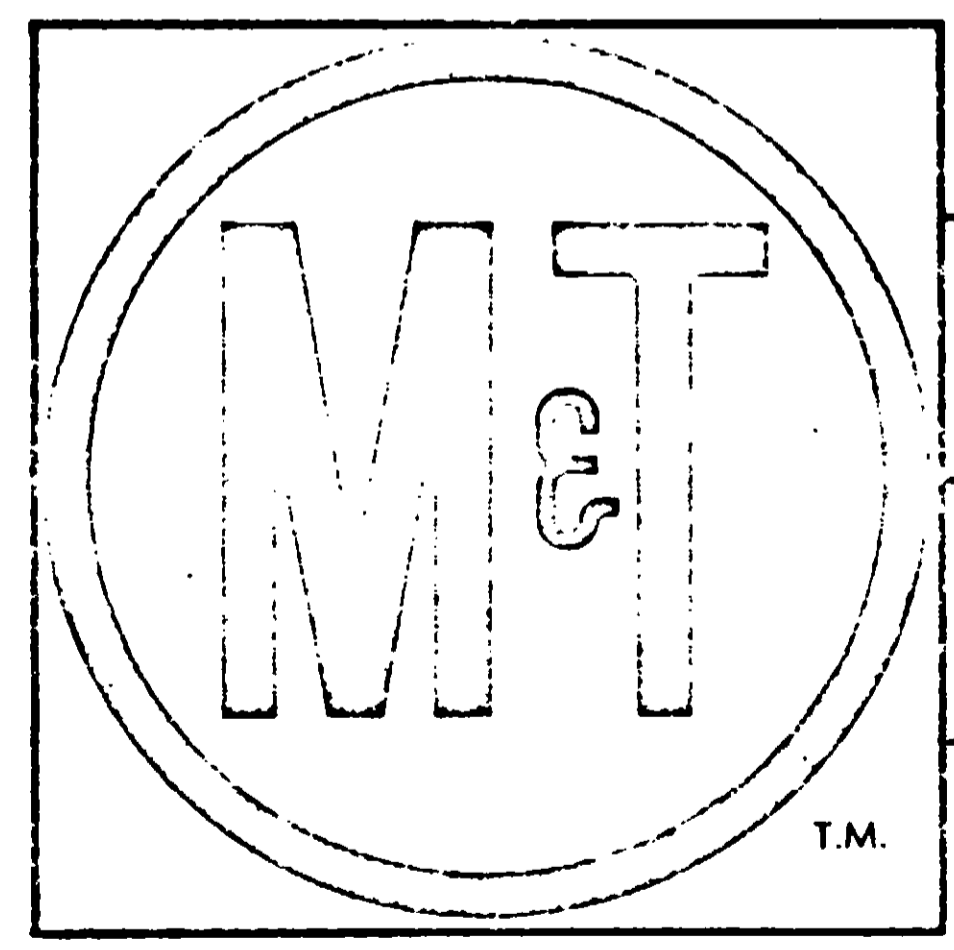
5204-2

bioMET[®] 33 ANTIMICROBIAL COMPOUND

A MICROORGANISM CONTROL AGENT FOR USE IN THE PAPER INDUSTRY

M&T CHEMICALS INC.

GENERAL OFFICES RAHWAY, N. J.



- ORGANIC & INORGANIC CHEMICALS
- MINERALS & CERAMICS PRODUCTS
- ORGANIC COATINGS & COMPOUNDS
- PLATING PROCESSES & EQUIPMENT

Active Ingredients

Methyl dodecyl benzyl trimethyl ammonium chloride

Tributyltin acetate

Methyl dodecyl xylylene bis(trimethyl ammonium chloride)

Total 30%

Inert Ingredients

Butanol

Water

Total 70%

WARNING! MAY BE FATAL IF SWALLOWED
 MAY BE ABSORBED THROUGH SKIN
 CAUSES SKIN IRRITATION

Do not get on face, eyes, or clothing. If contact occurs, wash immediately with water. If irritation occurs, discontinue use. Wash contaminated clothing before re-use.

Keep out of Reach of Children

USDA Reg. No. 5204-2
 Read technical data bulletin about this product prior to use.

OFFICES IN PRINCIPAL CITIES

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COMMERCIAL DEVELOPMENT DEPARTMENT



bioMeT* 33 ANTIMICROBIAL COMPOUND

A MICROORGANISM CONTROL AGENT FOR USE IN THE PAPER INDUSTRY

bioMeT* 33 is a mixture of the ingredients given below. This combination of an organotin compound and other microbiocides is designed to provide optimum performance as a slime control agent in the paper industry. bioMeT* 33 is a mobile, straw-colored liquid with a characteristic butanol odor. In use concentrations the odor can not be detected.

bioMeT* 33 is readily dispersed upon addition to water systems. It is non-corrosive at many times the recommended dose. bioMeT* 33 exhibits a broad spectrum of bacterial and fungal control.

bioMeT* 33 is not recommended for the control of slime on machines producing finished paper or board which is used for food stuffs.

Active Ingredients

Methyl dodecyl benzyl trimethyl ammonium chloride

Tributyltin acetate

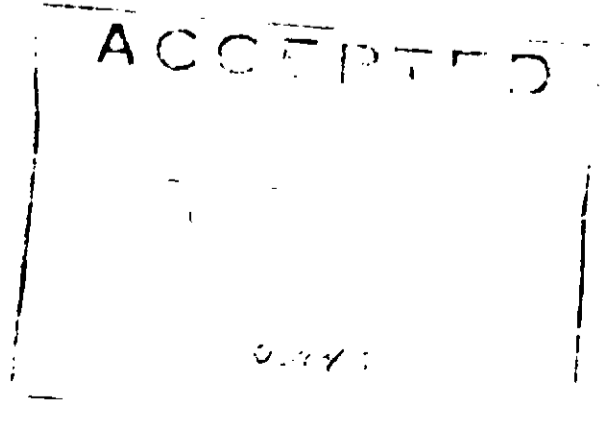
Methyl dodecyl xylylene bis (trimethyl ammonium chloride)

TOTAL 30%

Inert Ingredients

n-butyl alcohol

Water



TOTAL 70%

Microbiostatic Values

The following results were obtained by the broth dilution method:

<u>Organisms</u>	<u>ppm of Active Ingredient for Inhibition of Growth</u>
Bacillus mycolides	1.0
Aerobacter aerogenes	12.0
Pseudomonas aeruginosa	12.0
Candida albicans	3.0
Aspergillus flerus	4.0
Penicillium funiculorum	3.0

Use of bioMeT* 33 to Control Slime

Dosage

bioMeT* 33 controls microbiological slime in the range of 1.0 to 7.0 avoirdupois ounces per ton of finished paper depending upon severity of infection, type of finish and achievable contact time of toxicant.

Addition Techniques

Each mill, and often each machine, must be considered individually before the best method and point of addition are fixed. In general, bioMeT* 33 is best suited to the continuous and "semi-slug" addition may be considered.

The point of addition is best determined by a knowledge of the points of maximum infection as well as the areas of slime buildup. Continuous addition to a large machine chest, for example, is often more effective than addition to the wet end of the machine. The latter point of addition, however, can be quite suitable.

In all cases, good agitation at the point of addition is required. A small capacity metering pump is needed for continuous additions.

Technical Assistance

The services of our engineering and microbiological staffs are available in cooperation with mill personnel, to achieve the maximum benefit from bioMeT* 33.

Physical Properties (Typical)

Physical Form:	Straw-colored liquid
Density at 20°C:	0.968 grams/ml.
Flash Point (Test Closed Cup):	5.1°F
Bulk Density:	7.5 lbs./gal.
Stability in Storage:	Good
Freezing Point:	Below 0°C could form but redissolves above 0°C

Corrosive Properties

At the recommended use levels in the system, bioMet® 33 exerts no measurable corrosive effect on Fourdrinier wire. At these levels it does not cause corrosion of copper, bronze, brass, steel or stainless steel. In the concentrated form, bioMet® 33 may attack metals. Care should be taken in the selection of a suitable metering pump.

Precautionary Information

WARNING! MAY BE FATAL IF SWALLOWED
MAY BE ABSORBED THROUGH SKIN
CAUSES SKIN IRRITATION

Do not get on skin, in eyes, or on clothing.
In case of contact, remove contaminated clothing and immediately wash skin with soap and water. If irritation persists, get medical attention. In case of contact with eyes, immediately flush with water and get medical attention. Wash contaminated clothing before reuse.

For Industrial Use Only

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