

M-5-21

## INDUSTRIAL MICROBICIDE

### ACTIVE INGREDIENTS:

Methylene bis(thiocyanate)	2.5%
2-Thiocyanomethylthiothiazole	2.5%

### INERT INGREDIENTS

95.0%

This product weighs 7.99 pounds per gallon

## KEEP OUT OF REACH OF CHILDREN DANGER

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER:** Corrosive, causes irreversible eye damage and causes skin damage. Harmful or fatal if swallowed or absorbed through the skin. This product is a potential skin sensitizer. Workmen handling this product or treated material should wear impervious gloves, goggles or face shield, and protective clothing. All protective clothing, work shoes or boots, and equipment must be left at the work site at the end of the day. Eating, drinking, or smoking during use of this product is prohibited.

**FIRST AID:** In case of skin contact, wash promptly and thoroughly with soap and water and finally with glycerin. If product gets in the eyes, flush immediately with copious amounts of clean, cool water for 15 to 30 minutes. Get medical attention immediately. If product is swallowed, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish. Do not apply directly to water or wetlands. Permits may be required for discharges containing this pesticide into lakes, streams, ponds, or public water. For guidance, contact the regional office of the Environmental Protection Agency.

**PHYSICAL AND CHEMICAL HAZARDS:** Do not expose to extreme temperatures.

### STORAGE & DISPOSAL

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

**STORAGE:** Do not expose to extreme temperatures. Do not stack more than five drums high. Drums should be opened in well-ventilated areas. Leaking or damaged drums should be placed in overpack drums for disposal. Spills should be absorbed in sawdust or sand and disposed of in a sanitary landfill. Keep container closed when not in use.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Containers for this product are not to be recycled or reconditioned, or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## DIRECTIONS FOR USE

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

**COOLING TOWERS:** M-5-21 is used to protect cooling tower wood against soft or surface rot and internal or dry rot. It is applied by spraying or painting a dispersion containing 2.0 to 2.8% M-5-21 in water onto the clean wood surfaces. The amount applied should provide 2.4 to 3.2 lb M-5-21 per 1000 ft<sup>2</sup> of wood surface. Soft or surface rot can also be inhibited by periodic shock doses of M-5-21 to the recirculating cooling water at the tower basin or coil well. The dosage should provide 5.0 lb of M-5-21 per 1000 gal of water and the bleedoff should be stopped for 4 to 6 hr after treatment. The shock treatment should be repeated every four months.

**COOLING WATER:** M-5-21 is used to control algae, bacteria, and fungi in industrial recirculating cooling water systems. Before treatment is begun, the system should be cleaned thoroughly to remove old algal growth, microbiological slime, and other deposits. The system should then be drained, flushed, refilled with water, and treated with an initial dose of 2.4 to 4.8 lb of M-5-21 per 1000 gal water in the system. Subsequent additions of 0.8 to 4.8 lb of M-5-21 per 1000 gal should be made every 1 to 5 days, depending on amount of bleedoff and severity of microbiological fouling.

**DRILLING FLUIDS:** To inhibit bacterial and fungal degradation of the fluids or muds used in the drilling of wells, M-5-21 is incorporated in the drilling fluid at concentrations of 0.2 to 1.0% based on the total wet weight of the fluid.

**PETROLEUM SECONDARY RECOVERY:** M-5-21 is used to control sulfate-reducing bacteria, slime-forming bacteria and fungi in oil-field water, polymer, or micellar floods, water-disposal systems, and other oil-field water systems at dosage rates of 15.6 to 52.0 lb of M-5-21 per 1000 gal of water treated. Additions should be made continuously or intermittently by means of a metering pump at the free water knockouts, before or after injection pumps and injection well headers. Continuous Feed Method: When system is noticeably fouled, add 15.6 to 52.0 lb of M-5-21 per 1000 gal of water continuously until desired degree of control is achieved. Then treat with 15.6 to 52.0 lb of M-5-21 per 1000 gal of water continuously, or as needed to maintain control. Intermittent or Slug Method: When system is noticeably fouled, or to maintain control, add 15.6 to 52.0 lb of M-5-21 per 1000 gal of water for 4 to 8 hr per day and 1 to 4 times per week, or as needed to maintain control.

**CRUDE AND REFINED OILS:** M-5-21 is an oil-soluble preservative for the control of bacteria and fungi that cause the degradation of crude oil and refined fuel oils during storage. It should be added to the oil as it is being transferred from the shipping container to the storage tank at the rate of 2.4 to 24.0 lb of M-5-21 per 1000 gal. Addition should be made hatchwise where mixing occurs or continuously to the suction side of the transfer pump.

Manufactured by:  
BUCKMAN LABORATORIES, INC.,  
1256 NORTH McLEAN BOULEVARD  
MEMPHIS, TN 38108

EPA REG. NO. 1448-145 EPA EST. NO. \_\_\_\_\_

NET CONTENTS \_\_\_\_\_

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

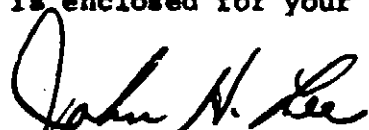
Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Add the phrase "EPA Registration No. 1448-145" to your label before you release the product for shipment.
3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

  
John H. Lee  
Product Manager (31)  
Antimicrobial Program Branch  
Registration Division (TS-767C)

Enclosures

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

M-5-21

DEC 20 1988

## INDUSTRIAL MICROBICIDE

### ACTIVE INGREDIENTS:

Methylene bis(thiocyanate) . . . . .

2-Thiocyanomethylthiothiazole . . . . .

### INERT INGREDIENTS

This product weighs 7.99 pounds per gallon

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide  
registered under EPA Reg. No.

1448-145

25%  
25%  
95.0%

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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**FIRST AID:** In case of skin contact, wash promptly and thoroughly with soap and water and finally with glycerin. If product gets in the eyes, flush immediately with copious amounts of clean, cool water for 15 to 30 minutes. Get medical attention immediately. If product is swallowed, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish. Do not apply directly to water or wetlands. Permits may be required for discharges containing this pesticide into lakes, streams, ponds, or public water. For guidance, contact the regional office of the Environmental Protection Agency.

**PHYSICAL AND CHEMICAL HAZARDS:** Do not expose to extreme temperatures.

### STORAGE & DISPOSAL

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**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### DIRECTIONS FOR USE

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

**COOLING TOWERS:** M-5-21

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faces. The amount applied should provide 2.4 to 3.2 lb M-5-21

1000 ft<sup>2</sup> of wood surface. Soft or surface rot can also M-5-21

well. The dosage should provide 5.0 lb of M-5-21

water and the bleedoff should be stopped for 4 to 6 hr after repeated every four months.

**COOLING WATER:** M-5-21

and fungi in industrial recirculating cooling water systems should be cleaned thoroughly to remove old algal growth, microorganisms, and debris. The system should then be drained, flushed, refilled with water, and M-5-21

of 0.8 to 4.8 fl oz per 1000 gal should be made every 1 to 5 days, depending on the severity of microbiological fouling.

**DRILLING FLUIDS:** To inhibit bacterial and fungal degradation of drilling fluids, M-5-21

concentrations of 0.2 to 1.0% based on the total wet weight of M-5-21

**PETROLEUM SECONDARY RECOVERY:** M-5-21

control sulfate reducing bacteria, slime-forming bacteria, micellar floods, water-disposal systems, and other oil field M-5-21

fl oz of M-5-21 per 1000 gal of water should be made continuously or intermittently by means of a metering pump or M-5-21

after injection pumps and injection well headers. Continuous M-5-21

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continuously until desired degree of control is achieved. M-5-21

control. Intermittent or Slug Method: When system is not M-5-21

15.6 to 52.0 fl oz M-5-21

and 1 to 4 times per week, or as needed to maintain control M-5-21

**CRUDE AND REFINED OILS:** M-5-21

inhibitor for the control of bacteria and fungi that cause the M-5-21

during storage. It should be added to the oil as it is being transferred M-5-21

storage tank at the rate of 2.4 to 24.0 fl oz M-5-21

Addition should be made batchwise where mixing occurs at transfer pump.

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BUCKMAN LABORATORIES,  
1256 NORTH McLEAN BOULEVARD  
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