



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 12, 2016

Crystal W. Brown  
Senior Regulatory Affairs Specialist  
Buckman Laboratories, Inc.  
1256 North McLean Blvd.  
Memphis, TN 38108

Subject: Label Amendment – Revise Crude and Refined Oil Use  
Product Name: M-5-1  
EPA Registration Number: 1448-171  
Application Date: December 2, 2015  
Decision Number: 511926

Dear Ms. Brown:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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

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with FIFRA section 6. If you have any questions, please contact Terria Northern by phone at 703-347-0265, or via email at [northern.terria@epa.gov](mailto:northern.terria@epa.gov).

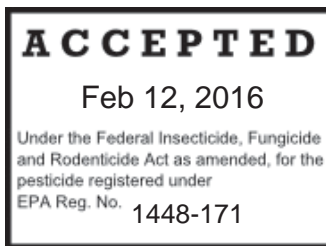
Sincerely,

A handwritten signature in black ink, appearing to read "Julie Chao". The signature is fluid and cursive, with the first name "Julie" being more prominent than the last name "Chao".

Julie Chao, Product Manager 33  
Regulatory Management Branch 1  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

Enclosure: Approved Label

<b>ACTIVE INGREDIENT(S)</b>	
2-(Thiocyanomethylthio)benzothiazole . . .	2.5%
Methylene bis(thiocyanate) . . . . .	2.5%
<b>OTHER INGREDIENTS . . . . .</b>	<b>95.0%</b>
<b>TOTAL . . . . .</b>	<b>100.0%</b>



**KEEP OUT OF REACH OF CHILDREN  
DANGER PELIGRO**

<b>FIRST AID</b>	
<b>If in Eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If on Skin, Clothes</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15–20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If Swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If Inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. You may also contact 901-767-2722 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN</b>	
Probable mucosal damage may contraindicate the use of gastric lavage. This product may pose an aspiration pneumonia hazard. Contains Petroleum distillate.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER: Corrosive.** Causes irreversible eye damage and skin burns. May be fatal if swallowed or inhaled. Do not breathe vapor or spray mist. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear goggles or face shield. Wear coveralls over long-sleeved shirt and long pants; socks and chemical resistant footwear; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton; and respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C); or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G); or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter. In addition to the PPE listed above, mixers, loaders, and cleaners of equipment must also wear chemical-resistant apron. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**User Safety Requirements:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**User Safety Recommendation:** User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish, aquatic invertebrates, oysters and shrimp. 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 without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

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

## STORAGE AND 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:** Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Pesticide wastes are acutely hazardous. Wastes resulting from the use of the product, excess pesticide, spray mixture, or rinsate must be collected and disposed of at an approved disposal facility. 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 HANDLING:

{Text for all nonrefillable containers}

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying.

{Liquid residue removal statement for nonrefillable containers with capacity of 5 gals or less}

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for the later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

{Liquid residue removal statement for nonrefillable containers with capacity of >5 gals}

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

{Text for all nonrefillable containers}

Then offer for recycling if available or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities by burning. If burned, stay out of smoke.

{Text for refillable containers}

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

{For containers larger than 55 gallons}

To clean the container prior to refilling or disposal, use a pressure wash as follows: Empty the remaining contents into application equipment or a mix tank. Use a pressure wash system that rinses all interior sides with water and that is rated at >40 psi and >120°F. Pressure wash the container for a length of time that ensures that a minimum 25% of the container volume of water is used. During the pressure wash, ensure that the container valve is left open for continuous draining. Collect the rinsate and empty into application equipment or a mix tank or store rinsate for later use or disposal. Allow container to drain for 10 minutes after pressure wash is completed.

{For containers 55 gallons and smaller}

To clean the container prior to refilling or disposal, use a triple rinse wash as follows: Empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously. Pour or pump rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this rinsing procedure two more times.

Do not discharge rinsate containing this product 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 rinsate containing this product to sewer systems without prior approval from the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## DIRECTIONS FOR USE

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

**NOTE TO USER:** Do not apply this product in a way that will contact workers or other persons.

**COOLING TOWERS:** M-5-1 is used to protect cooling tower wood against soft or surface rot and internal or dry rot. It is applied by painting a dispersion containing 2.0 to 2.8% M-5-1 in water onto the clean wood surfaces. The amount applied must provide 2.4 to 3.2 lb. M-5-1 per 1000 sq. ft. of wood surface. Soft or surface rot can also be inhibited by periodic shock doses of M-5-1 to the recirculating cooling water at the tower basin or cold well. The dosage should provide 5.0 lb. of M-5-1 per 1000 gal. of water and the bleedoff should be stopped for 4 to 6 hours after treatment. The shock treatment should be repeated every four months.

For treatment of cooling tower systems greater than or equal to 4000 gallons: Do not apply by open pouring of M-5-1 to cooling towers systems. A metering pump delivery system is required for this use and application method.

**COOLING WATER:** M-5-1 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 must then be drained, flushed, refilled with water, and treated with an initial dose of 2.4 to 14.8 fluid oz. M-5-1 per 1000 gal. water in the system.

Make subsequent additions of 0.8 to 4.8 fluid oz. per 1000 gal. every 1 to 5 days, depending on amount of bleedoff and severity of microbiological fouling.

For treatment of cooling water systems greater than or equal to 4000 gallons: Do not apply by open pouring of M-5-1 to cooling water systems. A metering pump delivery system is required for this use and application method.

**DRILLING FLUIDS:** To inhibit bacterial and fungal degradation of the fluids or muds used in the drilling of wells, M-5-1 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-5-1 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 fluid oz. M-5-1 per 1000 gal. of water treated. Make additions 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 fluid oz. M-5-1 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 fluid oz. M-5-1 per 1000 gal. of water for 4 to 8 hours per day and 1 to 4 times per week, or as needed to maintain control.

**CRUDE AND REFINED OILS:** M-5-1 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 or transport (e.g. via truck, rail, ship, or pipelines). Crude and refined oils include, but are not limited to olefinic, aromatic, paraffinic, and naphthenic oils. It should be added to the oil as it is being transferred from the shipping container to the storage tank or directly to the transport conduit/container at the rate of 2.4 to 24.0 fl oz. of M-5-1 per 1000 gal. of oil. Addition should be made batchwise where mixing occurs or continuously to the suction side of the transfer pump.

**FUEL:** M-5-1 can be used to eliminate and/or prevent the growth of bacteria and fungi in distillate and residual fuels including Gasoline, Diesel #1, Diesel #2, and Bunker C. M-5-1 is intended for use in applications where residual and distillate fuels are used such as: bulk storage tanks, locomotive fuel tanks, diesel trucks, diesel boats and ships, farm equipment, construction equipment, and diesel generators. M-5-1 should be added to the fuel at a rate of 1.25–2.5 fluid ounce per 100 gallons. Feed M-5-1 by injecting the product into the fill line as the fuel is being added or added batchwise while the fuel is being added to ensure adequate mixing.

For contaminated systems M-5-1 should be added at a shock dose of 2.5 fluid ounces per 100 gallons (see table below).

For clean systems the maintenance dose is 1.25 to 2.5 fluid ounces per 100 gallons (see table).

<u>Gallons of fuel</u>	<u>Shock treatment</u>	<u>Maintenance treatment</u>
20	0.5 fluid ounces	0.25 fluid ounces
40	1.0 fluid ounces	0.50 fluid ounces
60	1.5 fluid ounces	0.75 fluid ounces
100	2.5 fluid ounces	1.25 fluid ounces

M-5-1 is NOT for use in Aviation Fuels.

This diesel fuel additive does not comply with federal ultra-low sulfur content requirements for use in model year 2007 and newer diesel motor vehicles or model year 2011 and newer diesel nonroad equipment engines.

Manufactured by:

**Buckman Laboratories, Inc.**

1256 N. McLean Blvd., Memphis, Tennessee 38108, U.S.A.

(901) 278-0330 or 1-800-282-5626

**EPA Est. No. 1448-TN-1    EPA Reg. No. 1448-171**

**Product Weight    8.6 lbs/gal    1.03 kg/L**

Net contents are marked on the container.

**HMIS / NPCA RATINGS**

Health 3    Flammability 2    Reactivity 1

Revised: 12/02/15