

DIALD 15

DIRECTIONS FOR USE

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

AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS/RECIRCULATING COOLING AND PROCESS WATER SYSTEMS: This product may be used only in industrial air washer systems which have mist-eliminating components. DIALD 15 should be added at the application rates described below, to a water treatment system at a convenient point of uniform mixing such as the basin area. Addition may be made intermittently (SLUG DOSE) or continuously. Badly fouled systems can be shock treated with DIALD 15. Under these conditions, blowdown should be discounted for up to 24 hours. DIALD 15 can be used in industrial process water systems that contain ultra filtration units and non-medical reverse osmosis membranes (where approved for compatibility by the membrane manufacturer) and associated distribution systems.

INTERMITTENT (SLUG DOSE) METHOD: Initial Dose: When the system is noticeably fouled, apply 4.1-8.2 fluid ounces of DIALD 15 per 100 gallons of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 1.6-4.1 fluid ounces of DIALD 15 per 100 gallons of water in the system weekly, or as needed to maintain control. Badly-fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED SYSTEM: Initial Dose: When the system is noticeably fouled apply 4.1-8.2 fluid ounces of DIALD 15 per 100 gallons of water in the system.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 0.8-4.1 fluid ounces of DIALD 15 per 100 gallons of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

SERVICE WATER AND AUXILIARY SYSTEMS: DIALD 15 should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point that will allow for uniform mixing throughout the system.

HEAT TRANSFER SYSTEMS: (Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts, and Pasteurizers and Warmers and Once-Through Cooling Water Systems). DIALD 15 should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting area from which the treated water will be circulated uniformly throughout the system.

INDUSTRIAL WASTEWATER SYSTEMS: (Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks). DIALD 15 should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 1.4 to 7.2 gallons (1,500 to 7,500 ppm DIALD 15) per 1,000 gallons of wastewater or sludge.

MACROFOULING CONTROL: (*Not for use in the state of California). DIALD 15 should be added continuously to maintain a level of 20 ppm active ingredient in the system for a period of at least 96 hours. Initial Dose: When macrofouling is present in the system, apply 16.3 fluid ounces of DIALD 15 per 1,000 gallons of water in the system. Continue to add as needed to maintain the 20 ppm active ingredient level for a period of at least 96 hours.

BET SUGAR MILLS AND BET SUGAR MILL PROCESS WATER SYSTEMS: DIALD 15 should be added to the system at a point of uniform mixing such as the diffuser, transport water pump, weir box, or diffuser feed water pump. Additions may be made intermittently (SLUG DOSE) or continuously.

INTERMITTENT (SLUG DOSE) METHOD: Initial Dose: When the system is noticeably contaminated, add 19.6 to 49.1 fluid ounces (667 to 1,667 ppm product) of DIALD 15 per ton or 640 to 1,600 mL of DIALD 15 per metric ton of sliced beets as a slug dose. Repeat until control is achieved. **Subsequent Dose:** When microbial control is evident, add 2.94 to 29.4 fluid ounces (96 to 960 ppm) of DIALD 15 per ton or 96 to 960 mL of DIALD 15 per metric ton of sliced beets in the system as a slug dose as necessary to maintain control. The total should not exceed 350 gallons per 1,000 tons of beets sliced per day.

CONTINUOUS FEED METHOD: Initial Dose: When the system is noticeably contaminated, add 19.6 to 49.1 fluid ounces/minute (667 to 1,667 ppm product) of DIALD 15 per ton or 640 to 1,600 mL/minute of DIALD 15 per metric ton of beets sliced per minute in the system via automatic pump of suitable construction. **Subsequent Dose:** When microbial control is evident, add 2.94 to 29.4 fluid ounces/minute (100 to 1,000 ppm) of DIALD 15 per ton or 96 to 960 mL/minute of DIALD 15 per metric ton of beets sliced per minute in the system, or as necessary to maintain control. The total should not exceed 350 gallons per 1,000 tons of beets sliced per day.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS: DIALD 15 should be added to paper making system at a point of uniform mixing such as the beaters, broke chest pump, save-all tank, or white-water tank. **Initial Dose:** When the system is noticeably contaminated, add 1.7-9.9 lbs of DIALD 15 per ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily-fouled systems should be boiled out prior to initial treatment. **Subsequent Dose:** When microbial control is evident add 1.0-6.6 lbs of DIALD 15 per ton of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD: (For use in food and non-food contact pigments and filler slurries). Use from 0.33 to 2.0 lbs of DIALD 15 per 1,000 lbs dry powder to produce a concentration of 333 to 2,000 ppm as product (based on slurry solids) in the mixed slurry.

WATER-BASED COATINGS FOR PAPER AND PAPERBOARD: (For use in non-food contact coatings only). Use from 0.33 to 2.0 lbs of DIALD 15 per 1,000 lbs dry powder to produce a concentration from 333 to 2,000 ppm as product (based on slurry solids) in the mixed slurry.

AQUEOUS METALWORKING FLUIDS: DIALD 15 should be added to a metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Additions may be made intermittently (SLUG DOSE) at intervals of one week or less. **Initial Dose:** When the system is noticeably fouled apply 8.2 to 24.6 fluid ounces (100 to 300 ppm active) of DIALD 15 per 100 gallons of metalworking fluid to the system. Repeat until control is achieved. **Subsequent Dose:** When microbial control is evident, add 3.3 to 16.4 fluid ounces (40 to 200 ppm active) of DIALD 15 per 100 gallons of metalworking fluid to the system weekly, or as needed to maintain control. Badly fouled systems should be cleaned before treatment is begun.

WATER BASED CONVEYOR LUBRICANTS: (Brewery, Juice, Dairy, Beverage, and Food Processing Systems). Avoid contamination of food in application of product. Thoroughly clean all tracks and conveyors to remove gross soil. Rinse well. Use an automatic feed system to provide 4.1 to 24.6 fluid ounces (50 to 300 ppm active) of DIALD 15 per 100 gallons of diluted lubricant.

GENERAL PRESERVATIVE USE: DIALD 15 is recommended for use in aqueous or water containing products and systems, including industrial, institutional and consumer in-can processes and products, to control the growth of bacteria and fungi. For effective preservation, add DIALD 15 to the product formulation at a rate of 0.066% to 0.66% (660 to 6,660 ppm) based on the water content of the product (0.66 to 6.6 lbs DIALD 15 per 1,000 lbs water content). Mix uniformly.

PRESERVATIVE FOR CONCENTRATES: For use in concentrates where effective preservation is needed after dilution, add DIALD 15 to the product formulation at a rate such that the diluted end-use product will contain 0.066% to 0.66% DIALD 15. At no time during the preservation process should the level of DIALD 15 exceed 6.6%.

REVERSE OSMOSIS MEMBRANES: For effective preservation of reverse osmosis elements (where approved for compatibility by membrane manufacturer), immerse elements in a tank containing 0.66% to 6.6% DIALD 15. DIALD 15 can also be added to in-line recirculating systems for preservation of installed out-of-service reverse osmosis equipment (where approved for compatibility by membrane manufacturer). Add 0.66% to 6.6% DIALD 15 to the tank in the circulating system. Maintain the concentration of DIALD 15 by periodic addition to counteract any system leakage.

CONCRETE ADMIXTURES: For effective preservation of concrete admixtures, add DIALD 15 to the product formulation at a rate of 6.660 to 26,700 ppm based on the weight of the admixture (6.7 to 26.7 lbs DIALD 15 per 1,000 lbs concrete admixture). Mix uniformly.

WATER FLOODS: DIALD 15 should be added to a water flood system at a point of uniform mixing. **Initial Treatment:** When the system is noticeably contaminated, add 330 to 16,670 ppm DIALD 15 to the system (0.3 to 16.0 gallons DIALD 15 per 1,000 gallons flood water). Repeat until control is achieved. **Subsequent Dose:** When microbial control is evident, add 67 to 16,670 ppm DIALD 15 (0.06 to 16.0 gallons DIALD 15 per 1,000 gallons flood water) to the system weekly, or as needed to maintain control.

DRILLING, COMPLETION, AND WORKOVER FLUIDS: DIALD 15 should be added to a drilling fluid system at a point of uniform mixing. **Initial Treatment:** Add 170 to 3,330 ppm DIALD 15 (0.7 to 13.4 gallons DIALD 15 per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination. **Maintenance Dosage:** Maintain a concentration of 170 to 3,330 ppm DIALD 15 by adding 0.7 to 13.4 gallons of DIALD 15 per 100 barrels of additional fluid, or as needed, depending on the severity of contamination.

PACKER FLUIDS: DIALD 15 should be added to a packer fluid at a point of uniform mixing such as a circulating holding tank. Add 170 to 2,000 ppm DIALD 15 (0.7 to 6.1 gallons DIALD 15 per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination. Seal the treated packer fluid in the wall between the casing and production tube.

GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS: DIALD 15 should be added to a gas production or transmission pipeline via direct injection. The application should be conducted to ensure maximum distribution of the DIALD 15 through the entire internal surface of the pipeline. To facilitate application, it may be desirable to dilute the DIALD 15 with an appropriate solvent immediately before use. Injections to the system should be weekly, or as needed to maintain control.

GAS STORAGE WELLS AND SYSTEMS: Individual injection wells should be treated with a sufficient quantity of DIALD 15 to produce a concentration of 1,670 to 16,670 ppm DIALD 15 when diluted by the water present in the formation. Injection should take place before gas is injected (during the summer). Injections should be repeated yearly, or as needed to maintain control. Individual drips should be treated with a sufficient quantity of DIALD 15 to produce a concentration of 670 to 6,670 ppm DIALD 15 when diluted by the water present in the drip. Injections should be repeated yearly, or as needed to maintain control.

HYDROTESTING: Water used to hydrotest pipelines or vessels should contain 330 to 13,330 ppm DIALD 15 (0.3 to 12.8 gallons DIALD 15 per 1,000 gallons water), depending on water quality and length of time the equipment will remain idle.

PIPELINE PIGGING AND SCRAPING OPERATIONS: Add DIALD 15 to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and a trailing pig). Sufficient DIALD 15 should be added to produce a concentration of 0.3 to 3.3% (0.3 to 3.2 gallons DIALD 15 per 100 gallons water), depending on the length of the pipeline and the severity of biofouling.

STORAGE AND DISPOSAL

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide wastes are toxic. 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 your Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Metal Containers or Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures approved by state and local authorities. Plastic Containers: May be incinerated, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Metal Containers: Must not be incinerated. Do not cut or weld on or near metal containers.

Manufactured By:

Buckman Laboratories, Inc.

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

(901) 278-0330 or 1-800-BUCKMAN

EPA Est. No. 10352-WV-2^(A); 464-WV-1^(B) EPA Reg. No. 1448-423

(A) 5-gallon pails in pallets; all drums; bulk. (B) Single 5-gallon pails only.

Product Weight: 8.7 lbs/gal 1.04 kg/L

NET CONTENTS MARKED ON CONTAINER

HMS/NPCA RATING

Health 3 Flammability 1 Reactivity 0

Revised: 1/25/05

ACTIVE INGREDIENT	15.0%
INERT INGREDIENTS	85.0%
TOTAL	100.00%

MAY 05 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, this pesticide, registered under EPA Reg. No. 1448-423

**KEEP OUT OF REACH OF CHILDREN
DANGER**

FIRST AID

If swallowed	<ul style="list-style-type: none"> Call poison control center or doctor immediately for treatment advice. DO NOT INDUCE VOMITING. Do not give anything to drink.
If in eyes	<ul style="list-style-type: none"> Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Call a poison control center or doctor immediately for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center for treatment advice.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a Poison Control Center or doctor, or going for treatment. You may also contact 901-278-0330 or 1 800 BUCKMAN for emergency medical treatment information.

NOTE TO PHYSICIAN

Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if inhaled. Harmful if swallowed. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in hyper-reactive individuals. Do not get in eyes, on skin, on clothing. Avoid breathing vapor. Do not swallow. Wear goggles, protective clothing, and butyl or nitrile gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. 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 sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

STORAGE AND HANDLING

DIALD 15 is incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. DIALD 15 can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about 20.3°F (-6.5°C). Therefore, unless the storage tank is inside or underground, heating and insulation may be required. If heating is needed, exposure to high temperatures should be avoided. For short storage times (up to about 1 month), temperatures of up to 100°F (37.8°C) can be tolerated but the preferred maximum storage temperature is about 80°F (26.7°C).

A stainless steel centrifugal pump is suggested for transfer service. Spiral-wound stainless steel with TEFLON® Polymer is suitable for gaskets and packing.

Handle in a well-ventilated area. If vapors are irritating to the nose or eyes, special ventilation or respiratory protection (MSHA/NIOSH approved air purifying respirator equipped with an organic vapor cartridge) may be required.

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5/5/2005

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