PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Corrosive: Causes irreversible eye damage. Causes skin burns. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Prolonged or repeated skin contact may cause allergic reactions in some individuals. Use with adequate ventilation. Wash thoroughly with soap and water after handling and eating, drinking, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicator and other handlers must wear: Coveralls worn over long sleeved shirt and long pants. Chemical resistant footwear plus socks. Goggles or face shield. Chemical resistant gloves (such as barrier laminate, butyl rubber, neoprene rubber, nitrile rubber polynomials) (PVC and nitril). For mixing/loading: Wear a chemical resistant apron. For cleaning equipment: Wear a chemical resistant apron.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY REQUIREMENTS:

User must wash hands before drinking, chewing gum, using tobacco, or using the toilet. Users must remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users must remove personal protective equipment immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly. General Precautions and Restrictions: Do not apply this product in a way that will contact workers or other persons.

FIRST AID

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, and continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

IF SWALLOWED:
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.
- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN:
Probable mucosal damage may contraindicate the use of gastric lavage.

M Ergal® 530


EPA Reg. No. 5383-154
EPA Est. No. 5383-NJ-1

ACTIVE INGREDIENT:
2,2-Dibromo-3-nitrilopropionamide: 20.0%
INERT INGREDIENTS: 80.0%
TOTAL: 100.0%

ENVIRONMENTAL HAZARDS
This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment and disposal of waste. 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 prior consultation with local sewage treatment plant authority. For guidance contact your State Water Board or Regional office of the EPA.

CHEMICAL AND PHYSICAL HAZARDS
Reaction with strong reducing agents may be explosive. Avoid mixing.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Mergal 530 is a microbicide that is effective against bacteria, fungi, algae and slime. It is killed as an industrial microbiocide for Industrial Cooling Systems, Paper Mills, Brewery Pasteurizer Water, Metalworking Cutting Fluids, Non-Potable Reverse Osmosis Systems, Enhanced Oil Recovery Systems, Industrial Preservation Applications and Publicly Owned Treatment Works.

Add Mergal 530 separately to the system. Do not mix it with other additives, so as to avoid decomposition of Mergal 530 due to the high pH of many additive formulations. Mergal 530 may be added by the intermittent or slug method or by continuous feed for many end uses. Addition must be via a metering pump.

Mergal 530 can only be used for the production of non-food contact paper from use in pulp and paper mills.

See attached Product Information Sheet for use details and use rates for all applications. Use rates are provided, but laboratory/wet trials are suggested in order to determine the most appropriate rate of use within the range specified on this label.

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

STORAGE: Store in a dark, cool, dry well-ventilated area, not above 104°F (40°C) in well-closed containers, away from energy sources, combustible organic materials, oxidizers and moisture.

DISPOSAL: Pesticide wastes are acutely hazardous. Open dumping is prohibited. Improper disposal of excess pesticide, spray mixture or rinsates 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 the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container.

TROY CHEMICAL CORPORATION
One Avenue L, Newark, New J. 07105
Net Weight: 550 lb
Volume: 450 gallons

MERGAL® and TROYSA® are registered trademarks

FOR INDUSTRIAL USE
See Side Panel for Additional Precautionary Statements

IN CASE OF EMERGENCY: CALL CHEMTREC 1-800-424-9300
Produced For, Manufactured For, Sold by:
TROY CHEMICAL CORPORATION
One Avenue L, Newark, N.J. 07105

SPILLS: When handling or dealing with spills, use impact-resistant goggles with side shields, or face shield; wear body-covering clothing, including impervious rubber gloves and boots; use a respirator if misting occurs. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described for pesticide disposal. If drum contents are contaminated or decomposing, isolate unsealed drum in the open or in a well-ventilated area; flood with 10% sodium bicarbonate solution and large volumes of water if necessary.
Product Information Sheet
MERGAL®530, EPA Reg. No. 5383-154

This document must accompany each shipment of MERGAL 530

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Industrial Recirculating Cooling Water in Industrial Cooling Systems:

Note: Add MERGAL®530 separately to the system. Do not mix it with other additives, so as to avoid decomposition of MERGAL®530 due to the high pH of many additive formulations. Add MERGAL®530 to the basin (or any other point of uniform mixing). Addition must be made via a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the in-system retention time. Optimum performance with this product is achieved by continuous or intermittent treatment. If "shock" treatment is used, the blow down must be discontinued for 24-48 hours.

For Control of Bacteria:
Add 0.00095-0.0095 gallons of MERGAL®6530 / 1000 gal. of water in the system depending on the severity of contamination.

Intermittent or Slug Method:
Initial Dose: When the system is noticeably fouled, add 0.0048-0.0095 gal. of MERGAL®6530 / 1000 gal. of water in the system. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 0.0024-0.0095 gal. of MERGAL®6530 / 1000 gal. of water in the system every 4 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method:
Initial Dose: When the system is noticeably fouled, add 0.0048-0.0095 gal. of MERGAL®6530 / 1000 gal. of water in the system. Subsequent Dose: Maintain this level by pumping a continuous feed of 0.00195-0.0048 gal. of MERGAL®6530 / 1000 gal. of water in the system lost by blow down. Badly fouled systems must be cleaned before treatment is begun.

For Control of Fungi and Algae:
Add 0.029-0.095 gallons of MERGAL®6530 / 1000 gal. of water in the system, depending on the severity of contamination.

Intermittent or Slug Method:
Initial Dose: When the system is noticeably fouled, add 0.048-0.095 gal. of MERGAL®6530 / 1000 gal. of water in the system. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 0.029-0.095 gal. of MERGAL®6530 / 1000 gal. of water in the system daily, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method:
Initial Dose: When the system is noticeably fouled, add 0.048-0.095 gal. of MERGAL®6530 / 1000 gal. of water in the system. Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 0.029-0.095 gal. of MERGAL®6530 / 1000 gal. of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

Non-Potable Reverse Osmosis Systems:

For controlling bacteria, fungi and algae slimes in non-potable Reverse Osmosis systems and peripheral equipment, add MERGAL®530 to the system inlet water or before any other contamination area ahead of the Reverse Osmosis unit. MERGAL®530 must be added with a metering pump on an intermittent basis depending on the severity of contamination and the guidelines specified by the membrane manufacturer for MERGAL®530. Add MERGAL®530 at the rate of 0.01 to 1.0 lbs. (1 to 120 ppm) per 1000 gal. of feed water. During use of MERGAL®530 both permeate and reject waters must be directed to the drain. Once treatment is completed, rinsing with feed water must continue until conductivity values in the permeate are at or below values before treatment with MERGAL®530. Badly fouled systems must be cleaned before treatment is begun.
For Control of Bacteria:
Initial Dose: When the system is noticeably fouled, add MERCAL®530 at the rate of 0.05 to 0.1 lb. (6 to 12 ppm) per 1000 gal of feed water. Minimum treatment intervals must be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

Subsequent Dose: When microbial control is achieved, add MERCAL®530 at the rate of 0.025 to 0.1 lb. (3 to 12 ppm) per 1000 gal of feed water as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

For Control of Fungi and Algae:
Initial Dose: When the system is noticeably fouled, add MERCAL®530 at the rate of 0.5 to 1.0 lb. (60 to 120 ppm) per 1000 gal of feed water. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

Subsequent Dose: When microbial control is achieved, add MERCAL®530 at the rate of 0.3 to 1.0 lb. (36 to 120 ppm) per 1000 gal of feed water as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

Metalworking Fluids Containing Water:
MERCAL®530 is effective in metalworking fluid concentrates which have been diluted in water at ratios of 1:100 to 1:4. For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metalworking fluids containing water, add this product to the fluid in the collection tank. Additions must be made with a metering pump.

Initial or Slug Dose: When the system is noticeably fouled, add MERCAL®630 at the rate of 0.25 gal (2.65 lbs.) per 1000 gal of metalworking fluid in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add MERCAL®530 at the rate of 0.1 to 0.2 gal. (1.06 to 2.12 lbs.) per 1000 gal of metalworking fluid per day, or as needed to maintain control. Additions of MERCAL®530 product can be made continuously or intermittently. Slug the system as required.

Brewery Pasteurized Water:
For controlling (or inhibiting) the growth of bacteria, fungi and yeasts in brewery pasteurizing water systems, add MERCAL®530 at a point in the system to ensure uniform mixing.

Initial or Slug Dose: When the system is noticeably fouled, add MERCAL®530 at the rate of 0.25 gal. (2.65 lbs.) per 1000 gals of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add MERCAL®530 at the rate of 0.1 to 0.2 gal. (1.06 to 2.12 lbs.) per 1000 gals of water per day, or as needed to maintain control. Additions of MERCAL®530 product can be made continuously or intermittently. Slug the system as required. Badly fouled systems must be cleaned before treatment is begun.

Enhanced Oil Recovery Systems:
NOTE: Add MERCAL®630 separately to the system. Do not mix it with other additives, so as to avoid decomposition of MERCAL®630 due to the high pH of many additive formulations. Additions of MERCAL®630 may be made at the free water knockouts, before or after the injection pumps and injection well headers. For controlling slime-forming bacteria, sulfide-producing bacteria, yeasts, and fungi in oil field water, polymer or micellar floods, water-disposal systems, or other oil field water systems, add 1-80 ppm MERCAL®530 (0.1-6.4 gal. of MERCAL®530 per 2400 barrels of water) depending on the severity of contamination. Additions must be made with a metering pump either continuously or intermittently.

Continuous Feed Method:
When the system is noticeably fouled, add 10-80 ppm MERCAL®530 (0.8-6.4 gal. of MERCAL®530 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1-15 ppm MERCAL®530 (0.1-1.2 gal. of MERCAL®530 per 2400 barrels of water) continuously or as needed to maintain control.

Intermittent or Slug Method:
When the system is noticeably fouled or to maintain control of the system, add 10-80 ppm MERCAL®530 (0.8-6.4 gal. of MERCAL®530 per 2400 barrels of water) intermittently for 4-8 hours per day and from 1-4 times per week, or as needed depending on the severity of contamination.

Note: For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 15-80 ppm MERCAL®530 (1.2-6.4 gal. of MERCAL®530 per 2400 barrels of water). Additions of MERCAL®530 must be made with a metering pump immediately after preparation of the aqueous biopolymer solution to reduce loss of viscosity.

Oilfield and Petrochemical Systems:
MERCAL®530 may be used either in slug treatment or in continuous application. Dosages may vary from as much as 200 ppm of MERCAL®530 in slug application to 10 to 50 ppm of MERCAL®530 in continuous treatment (1/4 pint MERCAL®530 per 1,000 gal of water equals approximately 30 ppm). A typical slug treatment is to add 1 pint of MERCAL®530 per 1,000 gal. at intervals as needed to prevent growth of microbial slime. Badly fouled systems may be slug treated to establish control, followed by continuous treatment to maintain control.
Industrial Preservation:
MERGAL®530 may be used to reduce microbiological contamination in raw materials and/or products such as: aqueous paints and coatings, polymers, slurries, adhesives, latex and resin emulsions, sizing, caulk, process water, along with specialty industrial products including: inks, polishes, waxes, detergents, and cleansers (non-food uses only). Add 25-2000 ppm by weight (2.6-224 fl. Oz.) per 1000 gals. or 21.4-1712 ml. per 1000 liters.

Pulp and Paper Mill Systems:
NOTE: Add MERGAL®530 separately to the system. Do not mix it with other additives, so as to avoid decomposition of MERGAL®530 due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal, and yeast growth in pulp, paper and paperboard mills add MERGAL®530 at levels of 0.15-0.50 lb./ton (dry) of pulp or paper produced. Addition can be continuous or intermittent, depending upon the type of system and the severity of contamination. Addition is via a metering pump at a point in the system that will ensure uniform distribution of MERGAL®530 in the mass of fiber and water, such as the beaters, Jordan inlet or discharge, broke chests, furnish chests, save-alls and white-water tanks.

Heavily fouled systems must first be boiled out, then treated with 0.15-0.35 lb. of MERGAL®530 / ton (dry) of paper or pulp as necessary for control.

Moderately fouled systems must be treated continuously with 0.35-0.50 lb. of MERGAL®530 / ton (dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates can then be reduced to 0.15-0.35 lb. of MERGAL®530 / ton (dry) of paper on a continuous or intermittent basis as needed for control. Diluted slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.

Slightly fouled systems must be treated continuously with 0.15-0.35 lb. of MERGAL®530 / ton (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

Mergal 530 can only be used for non-food contact paper use.

Air-Washer Systems:
Add 0.0015-0.035 gallons MERGAL®530 / 1000 gal of water in the system, depending on the severity of contamination, to control slime-forming bacteria and fungi in industrial air washing systems.

Intermittent or Slug Method:
Initial Dose: When the system is noticeably fouled, add 0.003-0.065 gal. MERGAL®530 / 1000 gal. of water in the system. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 0.0015-0.047 gal. MERGAL®530 / 1000 gal. of water in the system every 2 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method:
Initial Dose: When the system is noticeably fouled, add 0.003-0.035 gal. MERGAL®530 / 1000 gal. of water in the system.
Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0015-0.047 gal. MERGAL®530 / 1000 gal. of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

NOTE: For use only in industrial air-washer systems that maintain effective mist eliminating components.

Publicly Owned Treatment Works:
To control Coliform and Other Bacteria:
Add MERGAL®530 at a concentration of 1.0 to 10.0 ppm by weight of water being treated, depending on the severity and contamination in the system. Addition should be CONTINUOUS and must be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add MERGAL®530 to the system in a location where contact time will be 30 minutes or greater before reaching the outfall.

Co-treatment with Chlorine:
Add 0.4 - 1.5 ppm MERGAL®530 by weight of water treated. Chlorination should result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level) Addition should be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. MERGAL®530 must be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

Equipment Cleaning:
MERGAL®530 can be used to kill microorganisms present in solution or growing on the surfaces of process equipment such as reaction vessels, storage tanks and containers, piping and hoses. MERGAL®530 cannot be used for cleaning food/beverage processing equipment. For standard cleaning of equipment, add 50 to 250 ppm by weight MERGAL®530 in an aqueous solution, to process piping and equipment. Heavily fouled solutions or equipment may be treated with up to 2000 ppm of MERGAL®530. After treating process equipment with MERGAL®530, allow the MERGAL®530 solution to be in contact with surfaces for up to four hours. If bleach is being used for cleaning purposes at 50-250 ppm available chlorine, MERGAL®530 can be used as part of a dual treatment program at a 50-100 ppm by weight, in combination with sodium
hypochlorite. Treat process equipment with chlorine first. Follow this treatment with this MERGAL®530. Do not combine concentrated sodium hypochlorite solution with MERGAL®530.