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464-389

11/25/97

LABEL DRAFT
XD-1603L ANTIMICROBIAL
July 25, 1997
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XD-1603L Antimicrobial

Controls bacteria, fungi and yeasts in paper mills; controls bacteria in cooling towers and oil recovery operations.

Active Ingredients:

2,2-Dibromo-3-nitrilopropionamide 97.6%

Inert Ingredients: 2.4%

E.P.A. Registration No. 464-389
E.P.A. Est. No. 464-MI-1 , 68051-KR-1

KEEP OUT OF REACH OF CHILDREN

DANGER

PRECAUTIONARY STATEMENTS

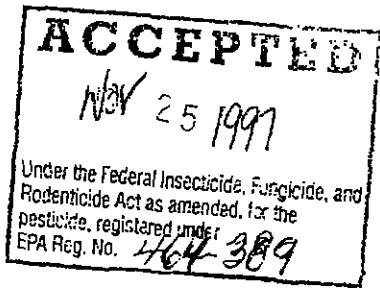
Hazards to Humans and Domestic Animals

CORROSIVE • CAUSES IRREVERSIBLE EYE DAMAGE • MAY BE FATAL IF SWALLOWED • CAUSES SKIN IRRITATION • HARMFUL IF ABSORBED THROUGH SKIN

Do Not Get in Eyes, on Skin, or on Clothing • Chemical Worker's Goggles Must Be Worn When Handling • Wash Thoroughly With Soap and Water After Handling • Remove Contaminated Clothing and Wash Clothing Before Reuse • Avoid Breathing Dust • Use With Adequate Ventilation

STATEMENTS OF PRACTICAL TREATMENT:

In Case Of Eye Contact, hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Get medical attention.
In Case of Skin Contact, wash with plenty of soap and water. Get medical attention.
If 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. If person is unconscious, never give anything by mouth and do not induce vomiting.



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ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public 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.

IN CASE OF EMERGENCY endangering life of property involving this product, call collect 517-636-4400

STORAGE AND DISPOSAL

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

Storage: To maintain product quality, store at temperatures below 60°C. Keep container tightly 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 the nearest EPA Regional Office for guidance.

Container Disposal: Do not reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

DIRECTIONS FOR USE

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

NOTE: ADD SOLUTIONS OF XD-1603L SEPARATELY TO THE SYSTEM. DO NOT MIX THEM WITH OTHER ADDITIVES, IN ORDER TO AVOID DECOMPOSITION OF XD-1603L DUE TO THE HIGH pH OF MANY ADDITIVE FORMULATIONS.

PAPER MILLS: For the control of bacterial, fungal, and yeast growths in pulp, paper, and paperboard mills, add a solution of XD-1603L at the rate of 0.03-0.10 lb. XD-1603L/ton of pulp or paper (dry basis). Addition may be continuous or intermittent, depending upon the type of system and the severity of contamination. It should be made with a metering pump at a location that will insure uniform distribution of XD-1603L 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 should be boiled out, then treated with 0.03-0.07 lb. XD-1603L/ton of paper (dry basis), as necessary for control.

ACCEPTED
NOV 25 1997
Under the Federal Insecticide, Fungicide, and
Rodenticide Act as amended, for the
pesticide, registered under
EPA Reg. No. 464-389

Moderately fouled systems should be treated continuously with 0.07-0.10 lb. XD-1603L/ton of paper (dry basis) until the slime accumulation is controlled. Addition rates can then be reduced to 0.03-0.07 lb. XD-1603L/ton of paper, on a continuous or intermittent basis, as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.

Slightly fouled systems should be treated continuously with 0.03-0.07 lb. XD-1603L/ton of paper (dry basis) until the slime is controlled, then added on an intermittent basis to maintain control.

COOLING TOWERS: For control of bacterial growths in cooling towers, add solutions of XD-1603L to the basin (or at any other point of uniform mixing). Add 0.002-0.020 lb. XD-1603L 1,000 gal of water in the system, depending on the severity of contamination. Addition should be made with a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the retention time in the system.

Intermittent or Slug Method

Initial Dose: When the system is noticeably fouled, add 0.01-0.02 lb. XD-1603L/1,000 gal water in the system. Repeat until control is achieved.

Subsequent Doses: When microbial control is evident, add 0.005-0.02 lb. XD-1603L 1,000 gal water in the system every 4 days, or as needed to maintain control.

Badly fouled systems must be cleaned before treatment.

Continuous Feed Method

Initial Dose: When the system is noticeably fouled, add 0.01-0.02 lb. of XD-1603L/1,000 gal of water in the system. Subsequently, maintain this treatment level by pumping a continuous feed of 0.001-0.010 lb. XD-1603L/1,000 gal of water lost by blowdown.

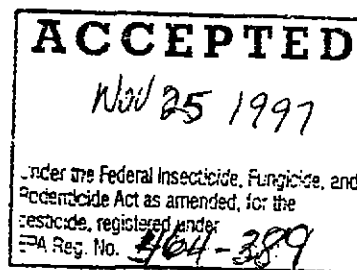
Badly fouled systems must be cleaned before treatment is begun.

Optimum performance with this product is attained by continuous or intermittent treatment. If "shock" treatment is used, the blowdown should be discontinued for 24-48 hr.

OIL FIELD APPLICATIONS: For reduction of bacterial contamination and degradation in oil recovery operations, add XD-1603L to the system at a rate of 6 to 54 ppm.

Fracturing Fluids

XD-1603L reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. XD-1603L should be added to the water storage tanks before gelling and circulated to ensure mixing. XD-1603L can be pre-dissolved in warm water and added at the well head for "on-the-fly" fracturing jobs. Use all pre-dissolved liquid within 24 hours. Frequency and Dose: XD-1603L should be added at a rate of 18 to 54 ppm (0.15-0.45 lbs per 1000 gal.) depending on water quality. Retreat after 48 hours if the frac job is delayed.



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Enhanced Oil Recovery (EOR) Fluids

XD-1603L reduces bacteria contamination and degradation of EOR polymers and gels. XD-1603L should be added to injection water before polymer addition. Frequency and Dose: XD-1603L should be added at a rate of 6 to 54 ppm (0.05-0.45 lbs per 1000 gal.). Dry XD-1603L should be added at a point to ensure proper dissolution and mixing.

Waterflood

XD-1603L can be used to control slime and corrosion causing bacteria in waters used for secondary oil and gas recovery. XD-1603L can be added as a dry product or pre-dissolved in warm water. Use all pre-dissolved liquid within 24 hours. If the system is heavily fouled, slug treat at the higher rate to remove biofilm. For maintenance, batch treat two to three times per week. Frequency and Dose: XD-1603L should be added at a rate of 6 to 54 ppm (0.05-0.45 lbs per 1000 gal.). Dry XD-1603L should be added at a point to ensure proper dissolution and mixing.

**KEEP CONTAINER TIGHTLY CLOSED
WHEN NOT IN USE.**

Notice: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

NOTICE

Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

NET

kg/

lb

The Dow Chemical Company
Midland, MI 48674 U.S.A.

ACCEPTED
Nov 25 1997
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Rodenticide Act as amended, for the
pesticide, registered under
EPA Reg. No. 464-389