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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7510P)
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

EPA Reg. Number:

89492-1

Date of Issuance:

DEC 19 2013

Term of Issuance:

Unconditional

Name of Pesticide Product:

Dutrion Powder
Component A

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Dutrion North America LTD
P.O. Box 175
Ferintosh, Alberta
TOB IMO Canada

Note: Changes in labeling 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 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. Registration is in no way to be construed as an endorsement or recommendation of this product by the 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.

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec. 3(c)(5), provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. A one year study is required to satisfy the storage and stability and corrosion characteristics requirements (Guidelines 830.6317 and 830.6320). You have 18 months from the date of registration to provide these data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. You must submit one (1) 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 it's implementing regulation at 40 CFR 152.3.

Signature of Approving Official:

Demson Fuller
Product Manager Team 32
Regulatory Management Branch
Antimicrobials Division (7510P)

Date:

DEC 19 2013



DUTRION POWDER

Component A

To be used for generation of Dutrion Chlorine Dioxide 0.4% together with Dutrion Powder Component B in a ratio of 1:1

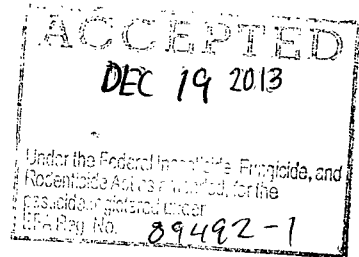
DEODORANT / FUNGISTATIC / ALGAESTATIC / MILDEWSTATIC

When used as directed, this 2-component chlorine dioxide generating product is proven effective as a deodorizer, fungistat, mildewstat, algaestat.

**KEEP OUT OF REACH OF CHILDREN
DANGER**

(see additional precautionary statement on back panel)

Active Ingredient:		
Sodium Chlorite	39 %	
Other Ingredients:	61 %	
Total:	100 %	



To be used for generation of Dutrion Chlorine Dioxide 0.4% together with Dutrion Powder Component B in a ratio of 1:1 (see mixing instructions). Prepare with clean water identified on package.

FIRST AID
If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for 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: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If Inhaled: Remove victim 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 treatment advice. Get medical attention.
Hot line number: Have the product packaging or label with you when calling the Poison Control Center or doctor, or going for treatment. You may contact +31 88 0333 003 for Emergency medical treatment information.

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

Precautionary Statements

HAZARDS TO HUMANS & DOMESTIC ANIMALS:

Danger: DRY ingredients. Corrosive. Causes irreversible eye damage and causes skin burns. Do not get in eyes or on clothing. May be fatal if swallowed. Wear chemical resistant gloves. Wear protective eyewear (goggles, face shield or safety glasses) when handling dry ingredients. Wear coveralls worn over long-sleeved shirt and long pants. Chemical-resistant footwear and socks must be worn. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ACTIVATED solution: May be fatal if swallowed. Do not get in the eyes or on clothing. Avoid contact with skin. Avoid breathing vapors. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. People must vacate the premises during any treatments; a one-hour restricted entry interval (REI) is required.

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 OR CHEMICAL HAZARDS: Dry sodium chlorite is incompatible with acids, reducing agents, combustible materials, sulphur-containing rubber, solvents and paints. Keep Dutton solution from light and heat. Chlorine dioxide gas may concentrate in open space of container after the 2 Dutton Powder Components A & B have been added to the starting water. Always dilute activated product in a well-ventilated area.

NOTE: For use in the institutional or commercial applications discussed below. Not for residential use.

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DIRECTIONS FOR USE:

Storage and disposal

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

Storage:

Store in original, tightly-closed container in area inaccessible to children or persons unfamiliar with use and away from food or feed. Keep tightly closed until ready to use. Store in original, unopened containers at or below 25 °C (77°F). This product has a minimum shelf life of 12 months after date of shipment.

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 the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Plastic Container Handling:

NON REFILLABLE PAIL OR JAR: Triple rinse as follows: Empty the remaining contents into application equipment of a mix tank. 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 later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Paper and Plastic Bag Handling:

DO NOT REUSE BAGS. Completely empty bag into application equipment. Discard bags in trash.

When used as directed, this product is an effective deodorant, fungistat, algastat, and mildewstat agent and general purpose antimicrobial. For all applications, clean surfaces before using product. Apply by mop, sponge, any dosing device or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear a NIOSH/MHSA approved respirator appropriate for chlorine dioxide when using a high-pressure sprayer.

It is a violation of Federal Law to use this product in a manner inconsistent with the labeling. Contains a 0.4% chlorine dioxide oxidizing agent. Add Dutton Powder components A & B to clean water only. Do not mix both Powder components with vinegar, hydrochloric, nitric or acetic acid or cleaning agents.

WARRANTY STATEMENT

The Company warrants the product to be free from defects in material and workmanship. THE COMPANY MAKES NO WARRANTY THAT THE GOODS SHALL BE MERCHANTABILITY. THE COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, EXCEPT SUCH AS IS EXPRESSLY SET FORTH HEREIN. The Company shall not be liable for any incidental or consequential damages for any breach of warranty. The Company's liability for any breach of warranty shall be limited to the purchase price of the product.

Preparation of a Dutrion 4,000 ppm chlorine dioxide concentrate (= 0.4%)

Per 1000 ml of clean water use 20 gram of Dutrion Powder Component A and 20 gram of Dutrion Powder Component B. Prepare chlorine dioxide stock solution always with full packages of both components. Fill qualified container first with amount of clean water by multiplying weight of package Dutrion Powder Component A times 50.

Diluting ratio: 50 parts water X 1 part Dutrion Powder (50% A + 50 % B) (by weight)

Package Size	Clean Water Volume	Clean Water Volume	PPM Chlorine Dioxide
DUTRION	Metric	Standard	
2500 gram A + 2500 gram B	125 Liter	33.0 US Gallon	4000

Follow steps 1-3 from "*Mixing Instruction for Dutrion Powder*"

MIXING instructions for chlorine dioxide concentration 0.4% with DUTRION Powders A & B
Task: Producing a liquid chlorine dioxide solution from Dutrion Powder Component A & Dutrion Powder Component B. The Components A & B and the liquid solution must be handled with care and all procedures must be followed according to the product label and the MSDS.

General Safety Guidelines

- ▶ Read MSDS GUIDELINES of Component A and Component B first
- ▶ Be aware of off-gassing and never mix components in open containers or buckets
- ▶ Use safety gear (respirator, goggles and gloves)
- ▶ Maintain ventilation in room during preparation and storage
- ▶ Be sure to mix in potable water with a **maximum temperature** of 104° F (40° C)
- ▶ Ask questions to your supplier before opening the foils
- ▶ Follow the steps below to make the right amount of stock solution

Preparation of the stock solution

- ▶ Always read the MSDS of the components and stock solution and follow the safety instructions
- ▶ Write the date of production on the label of the container

Step 1:

- ▶ Fill qualified container for chlorine dioxide solution with exactly the amount of potable water
- ▶ Find the temperature of the water in the container (optimum is 68° F (20° C))

Step 2:

- ▶ First add slowly component A to the water in container; *Do not inhale above open foils*
- ▶ Next, add slowly component B to the water in the container; *Do not inhale above container*
- ▶ Close container quick and tightly
- ▶ Do not stir or mix the water or shake the container
- ▶ Wait according to timetable instructions:

WATER TEMPERATURE	FULL REACTION TIME	COMMENTS
40 °C / 104 °F	< 10 minutes	MAXIMUM TEMPERATURE
30 °C / 86 °F	< 20 minutes	-----
20 °C / 68 °F	< 30 minutes	OPTIMUM TEMPERATURE
10 °C / 50 °F	> 60 minutes (up to 6 hrs)	LONGER REACTION TIME

Step 3:

- ▶ After reaction time; shake small containers gently, or stir/mix larger containers slowly
- ▶ Always be aware of CLO2 fumes during this mixing
- ▶ Stock solution with liquid chlorine dioxide is now ready for dosing.
- ▶ Store in cool, dark and vented room

1. GENERAL ALGAESTAT AND FUNGISTAT FOR HORTICULTURAL AND GREENHOUSE APPLICATIONS:

For horticultural applications, this product may be used at (100ppm/10 minutes or 50 ppm/20 minutes or 20 ppm/30 minutes) on hard, non-porous surfaces; to treat, control, and prevent fungi (5ppm/1 hour) attendant slimes, rusts and leaf spot; and to remove slimes (50 ppm/12 hours-overnight) and inhibit re-emergence (max.1 ppm continuous treatment) in irrigation and other potable water systems. Beginning with a 4,000 ppm solution: for 100 ppm, use a dilution device or sprayer with a 1:40 dilution (or 1 part solution to 39 parts of water); for 50 ppm, use a 1:80 dilution (1 part solution to 79 parts water); for 20 ppm, use a 1:200 dilution (1 part solution to 200 parts water); for 5 ppm, use a 1:800 dilution (1 part solution to 800 parts water); for 1 ppm, use a 1:4,000 dilution (1 part solution to 4,000 parts water). Concentrations and contact times are application specific.

2. ANTIMICROBIAL APPLICATIONS FOR NON-POTABLE WATER SYSTEMS IN HORTICULTURAL SETTINGS:

This product may be used to reduce microbial populations in non-potable water used with cut flowers to minimize microbial transfer from water to flower, thereby maintaining freshness and extending shelf-life of cut flowers. Make up Dutrion per label instructions to produce a 4,000 concentrate. To create a 5 ppm solution, use 1 part Dutrion concentrate and 800 parts clean water.

3. INDUSTRIAL COOLING TOWER WATER TREATMENT

For control of bacterial slime and algae in industrial re-circulating cooling systems, the required dosages will vary depending on the exact application and degree of contamination present. The required Dutrion residual concentrations range between 0.1 and 5.0 ppm. Dutrion may be applied either continuously or intermittently. The typical Dutrion residual concentration range is 0.1 – 1.0 ppm for continuous doses, and 0.1 – 5.0 ppm for intermittent doses. The minimum acceptable residual concentration of Dutrion is 0.1 ppm for a minimum one minute contact time.

4. DIRECTION FOR USE IN WATER DISTRIBUTION SYSTEM

Flush the water distribution system with Dutrion to wash off organic matter and algae. Back wash the water distribution system to increase yield and reduce turbidity. Use a Dutrion solution of 20 ppm as the backwash. After treating the water distribution system and completing the backwash add sufficient Dutrion solution to maintain a residual of up to 2.0 ppm. Use a chlorine dioxide test kit to monitor the residual level. Re-treat water distribution system if water samples are becoming biologically unacceptable. Begin by making up Dutrion as per the label instructions to produce a 4,000 ppm concentrate. Dilute Dutrion down to the required level between 20 ppm (1:200) and 1.0 to 2.0 ppm (1:4,000 to 1:2,000) to create a working solution. Residual disinfectant and disinfection by products must be monitored as required by the National Primary Drinking Water Regulations (40CFR Part 141) and State Drinking Water Standards.

5. OIL & GAS INDUSTRY APPLICATIONS

Dutrion is effective in the elimination of bacterial and sulphide contamination commonly found in down hole wells, oil field production, injection and disposal fluids, separators and pipelines. Eliminates odors caused by bacteria such as "iron eating" bacteria and bacteria that cause odor problems associated with hydrogen sulphide gas. The required dosage levels will vary according to site-specific conditions. Dutrion may be applied intermittently or continuously to oil well production water at the point where it is separated from oil, and prior to re-injection back into the well. For continuous feed, for oxidation of sulphides to sulphates and for biological control, apply Dutrion at a dosage level slightly higher than the oxidative demand as determined by a demand study. For intermittent treatment, a dosage rate of 200 to 2,000 ppm. Begin by making up Dutrion as per label instructions to produce a 4,000 ppm stock solution. Dilute Dutrion down to the required level between 2,000 and 200 ppm to create a final working solution.

6. DEODORIZING GARBAGE CANS, DIAPER PAILS AND WASTE BINS

Make up Dutral as per label instructions to produce a 4,000 ppm stock solution. Dilute as necessary to make up a working solution of 200 ppm. If diluting by hand, use 1 part Dutral to 19 parts clean water. Clean before deodorizing garbage can, diaper pail, pet place or waste bin and rinse with potable water. Drain. Spray in working solution Dutral. Allow to stand for 2 minutes. Air dry. Repeat as necessary.

7. FOAM SOLUTION

To eliminate algae and odors caused by mold and mildew on surfaces in dark damp areas. Begin by making up Dutral as per the label instructions to produce a 4,000 ppm concentrate. Dilute Dutral down to a level of 100 to 200 ppm depending on the degree of odor control required to create a working solution. Add 1 part Dutral to 39 part clean water to produce a 100 ppm working solution; add 1 part Dutral to 19 parts water to produce a 200 ppm working solution.

8. FOR USE IN INCUBATOR HUMIDIFICATION SYSTEMS

Make up Dutral concentrate per label instructions of 4,000 ppm. For manual dilution: Dilute to a solution of 1.0 ppm by adding 1 part Dutral to 4,000 parts water. For automated dilution: use dosing pump at 1:4,000 to inject Dutral into humidification water supply.

9. IRON AND MANGANESE REMOVAL

Begin by making up Dutral as per the label instructions to produce a 4,000 ppm concentrate. Dilute Dutral down to the required concentration depending on the measured pH levels and remaining within the limits of all local, state and Federal Regulations for discharge. Precipitate both elements according to the following: inorganic compounds in a soluble state - 1.0 ppm manganese removed for every 2.45 ppm of Dutral above pH 7. 1.0 ppm iron removal for every 1.2 ppm of Dutral above pH 5.

10. PHENOL DESTRUCTION

Must stay within all local, state and Federal Regulations for discharge. 1.0 ppm of phenol removed for 1.5 ppm of Dutral above pH 10 to Benzoquinone. 1.0 ppm of phenol removed for 3.3 ppm of Dutral below pH 10 to Carboxylic Acids. Begin by making up Dutral as per the label instructions depending on the measured pH levels.

11. CYANIDE DESTRUCTION

Must stay within all local, state and Federal Regulations for discharge. 1.0 ppm of Cyanide Ion removed for 2.5 ppm Dutral below pH 10 to Cyanate. Continuous treatment rate at 0.1 to 1.0 ppm. Intermittent treatment rate at 0.1 - 5.0 ppm. System dependant. Begin by making up Dutral as per the label instructions to produce a 4,000 ppm concentrate. Dilute Dutral down to the required concentration depending on the measured pH levels.

12. SLIME CONTROL IN PAPER MILLS

Dutral is effective for use in controlling microbiological growth in water used in paper mills. Dosages may vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, apply Dutral continuously or intermittently to achieve a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Repeat intermittent treatments as required to maintain control. Must stay within all local, state and Federal Regulations for discharge. 1.0 ppm of Aliphatic Amines removed for 10.0 ppm of Dutral at pH 4.5 to 9.0. 1.0 ppm of secondary aliphatic Amines removed for 5.0 ppm of Dutral above a pH of 7.0. Begin by making up Dutral as per the label instructions to produce a 4,000 concentrate. Dilute Dutral down to the required concentration level depending on the measured pH levels.

13. AGRICULTURAL IRRIGATION AND FUNGICIDE

Dutral is used in the irrigation system as algaestat and fungistat in horticultural and viticulture applications. Make up Dutral per label instructions to create a 4,000 ppm concentrate. Dilute Dutral concentrate (1:20,000 - 1:40,000) to prepare 0.1 - 0.2 ppm working solution and apply in the irrigation water.

14. WELL WATER TREATMENT

Flush the well casing with Dutrion to wash off organic matter and algae. Back wash the well to increase yield and reduce turbidity. Use Dutrion solution of 20 ppm as the backwash. After treating the casing and completing the backwash add sufficient Dutrion solution to maintain a residual of up to 2.0 ppm. Use a chlorine dioxide test kit to monitor the residual level. Re-treat well if water samples are becoming biologically unacceptable. Begin by making up Dutrion as per the label instructions to produce a 4,000 ppm concentrate. Dilute Dutrion down to the required level between 20 ppm (1:200) and 1.0 to 2.0 ppm (1:4,000 to 1:2,000) to create a working solution. Residual disinfectant and disinfection by products must be monitored as required by the National Primary Drinking Water Regulations (40CFR Part 141) and State Drinking Water Standards.

15. HYDROGEN SULPHIDE SCAVENGING WELL WATER TREATMENT

Dutrion is an effective scavenger of hydrogen sulphide, whether the hydrogen sulphide is in a gaseous state or dissolved in water. Dutrion is also a powerful scavenger of inorganic or organic sulfides. Dutrion can be used in low temperature applications and in high temperatures (max. 160 °F). It is non corrosive to equipment and does not form chlorinated hydrocarbons. The dosage rate varies with each location and local criteria. Determination of the optimum dosage level requires site-specific trials. The average dosage rate is approximately 2.0 ppm. Make up Dutrion as per label instructions to create a 4,000 ppm concentrate. Dilute (1:2,000) to 2.0 ppm in the target water.

16. NOX REDUCTION AND EMISSION SCRUBBING

NOX is a precursor to ozone in the atmosphere, and is believed to be a major contributor to acidic deposition (acid rain). NOX is produced in a variety of different processes, including combustion equipment, gas turbines, incinerators, kilns and power plants. Dutrion can be used in a wet removal (stack rubber) process. The use of stoichiometric amounts of chlorine dioxide eliminates approximately 95% of the NO in the gas, in concentrations of up to at least 24 ppm in short time. Make up Dutrion per label instructions to create a 4,000 ppm concentrate. Dilute to the required dosage level in the scrubber system water for the specific application as per manufacturer's instructions.

Directions for Use for Farm Premises

1. Do not use in milking stalls, milking parlors, or milk houses Remove all animals and feed from premises, vehicles, and enclosures.
2. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities and fixtures occupied or traversed by animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate all surfaces with the recommended disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

EPA Registrant information:

Dutrion North America Ltd,
PO Box 175,
Ferintosh, AB, T0B 1M0,
Canada
Phone: +1 780 361 2114
Fax: +1 780 361 2115
Email: info@dutrition.com