

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

April 23, 2018

Robert Chavez General Manager GO<sub>2</sub> International 6700 Caballero Blvd. Buena Park, CA 90620

Subject: Label Amendment – To add second page to system

Product Name: GO<sub>2</sub>

EPA Registration Number: 84912-2 Application Date: June 8, 2015 Decision Number: 530857

Dear Mr. Chavez:

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.

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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 with FIFRA section 6. If you have any questions, please contact Wanda Henson by phone at (703) 308-6345, or via email at <a href="mailto:henson.wanda@epa.gov">henson.wanda@epa.gov</a>

Sincerely,

Demson Fuller, Product Manager 32 Regulatory Management Branch II Antimicrobials Division (7510P) Office of Pesticide Programs

Enclosure

### ACCEPTED

04/23/2018

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 84912-2

# MANUFACTURED FOR:



#### DIRECTIONS FOR USE: IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH THE LABELING.

# DISINFECTANT **SANITIZER FUNGICIDE** DEODORIZER

# PRODUCT USE GUIDE DANGER PELIGRO

## KEEP OUT OF REACH OF CHILDREN FOR COMMERCIAL / INDUSTRIAL USE

When used as directed, as a disinfectant and sanitizer, this chlorine dioxide-generating product is proven effective against Pseudomonas aeruginosa (ATCC 15442), Staphylococcus aureus (ATCC 6538), Salmonella enterica (ATCC 10708), methicillinresistant S. aureus, "MRSA" (ATCC 33591), vancomycin-resistant Enterococcus faecalis, "VRE" (ATCC 51299), Klebsiella pneumoniae (ATCC 4352)

Component A and B only to be used with each other for production of GO<sub>2</sub> Chlorine Dioxide Concentrate 4,000 ppm Solution. Component "A" is sold and packaged together with Component B. Not sold separately. Concenterate Shelf life of 30 days.

MAXIMUM USE FOR POTABLE WATER 50MG/L

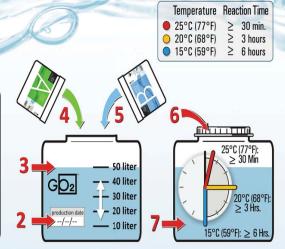
### Active Ingredient Component A: Sodium Chlorite: 52% 48% Other Ingredients: 1009 Total:

Precursor Component B: Sodium Bisulfate: 97% Anhydrous, globular Other Ingredients: 100% Total:

#### **DIRECTIONS FOR USE**

Creates a 0.4% oxidizing agent. Do not mix component powders together in dry form. Mix component powders only into water. Do not mix with vinegar, hydrochloric, nitric or acetic acid or cleaning agents. Wear a NIOSH/MHSA-approved respirator appropriate for chlorine dioxide. When mixing and loading wear a chemical-resistant apron and chemical-resistant gloves.

- 1. Always read the material safety data sheet (MSDS) and follow this label's safety instructions.
- 2. Write down the date of preparation of the 4,000 ppm concentrate stock solution on the label of the container. The container must be UVproof, sealable, dark and resistant to oxidation.
- 3. Fill the container with the exact amount of tap water shown on the label (1L, 5L, 10L, etc). NEVER USE LESS THAN THE AMOUNT OF WATER SHOWN ON THE LABEL OR EXCESS GAS PRESSURE COULD RESULT AND THE CONTAINER COULD BURST.
- 4. First add COMPONENT A to the container with water. NEVER ADD THE POWDER TO AN EMPTY CONTAINER. ALWAYS ADD IT TO WATER.
- 5. Follow by pouring COMPONENT B into the container.
- 6. Gently swirl the liquid and securely close the container.
- 7. Wait according to timetable below. Before use, verify concentration using chlorine dioxide test strips or a chlorine dioxide meter. If reading indicates lower than 4,000 ppm after reaction time has completed, refer to Product Use Guide for application solution concentration adjustment. 4,000 ppm is based on tap water at our production facility. \*Your results may vary with local water conditions.
- 8. GO2<sup>™</sup> 4,000 ppm Concentrate is ready for use.
- GO2<sup>™</sup> Concentrate has a shelf life of approximately 30 days.
- 10. Store in a cool and dark place.



#### FIRST AID INSTRUCTIONS

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 container or label with you when calling the poison control center or doctor, or going for treatment. You may also contact 1-800-535-5053 for emergency medical treatment information.

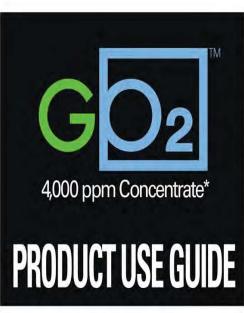
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

DANGER: HAZARDS TO HUMANS & DOMESTIC ANIMALS: 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.

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, sulfur-containing rubber, solvents and paints. Keep GO,™ solution from light and heat. Chlorine dioxide gas may concentrate in open space of container after both powders have been added to the starting water. Always dilute activated product in a well-ventilated area.

For use in the institutional or commercial applications discussed below. Not for residential use or where young children may be present



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 MERCHANTABLE. 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.

When used as directed, this product is an effective sanitizer, disinfectant, and general-purpose antimicrobial. For all applications, clean surfaces before using product. Apply by mop, sponge or sprayer, ensuring visible wetness for times specified for these applications, or apply through immersion or clean-in-place application. Wear MSHA/NIOSH approved 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." For overhead exposure wear chemical-resistant headqear.

SANITIZER FOR HARD, NON-POROUS, FOOD-CONTACT SURFACES: Effective food contact surface sanitizer at 15 ppm with an exposure time of 5 minute. Product may be used on previously cleaned food preparation surfaces; fountain drink and beverage dispensers; glassware, plates and eating utensils; food processing equipment, including beer processing equipment and lines, and food conveyor belts. Make up GO,™ using Components A and B per container label instructions to produce a 4,000 ppm Concentrate. Use a dilution device or sprayer to achieve a solution of 15 ppm. If diluting by hand, to create a 15 ppm solution, use 1 part GO,™ and dilute to 266 parts water.

DISINFECTANT FOR HARD, NON-POROUS SURFACES: Product may be used at 150 ppm with an exposure time of 10 minutes to disinfect hard surfaces in hotels, offices, ships, hospitals, schools, factories, unseries, sick rooms, laundry rooms, eating establishments, medical, veterinary clínics or any other location that may be contaminated. Make up GO,™ per label instructions to produce a 4,000 ppm Concentrate. Dilute as necessary to produce a 150 ppm working solution. To create a 150 ppm solution, use 1 part GO,™ and dilute to 26 parts water.

DISINFECTANT FOR CLEAN-IN-PLACE APPLICATIONS FOR POTABLE WATER SYSTEMS: Product may be used to disinfect lines used in fountain drink or other beverage preparation, storage, transfer and dispensing. Add Component A to container of tap water, followed with Component B. Let stand based on room temperature (see Chart). This creates a 4,000 Concentrate of GO2,<sup>™</sup>, use a dilution device with 1:40 dilution (one part Concentrate diluted to 40 parts water) to achieve a 100 ppm solution (10-minute exposure time). Maximum use for potable water 50 mg/L.

ANTIMICROBIAL AND GENERAL CLEANING APPLICATIONS FOR POTABLE WATER SYSTEMS: This product will reduce microbial population s in the potable water holding tanks and lines; and fountain drink or other beverage preparation, storage, transfer and dispensing lines and equipment. In addition, it will clean, eliminate odors, and remove organic matter. These uses must be followed by a potable water rinse. For 50 ppm, dilute the GO<sub>2</sub>™ Concentrate of 4,000 ppm 1:80 (dilute 1 part GO<sub>2</sub>™ to 80 parts water) using an appropriate dilution device. Maximum use for potable water 50 mg/l

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. Beginning with a 4,000 ppm Concentrate of GO₂™, use a dilution device with a 1:800 dilution (one part Concentrate to 800 parts water) to achieve a 5 ppm solution.

GENERAL DISINFECTANT, SANITIZER, ALGAECIDE AND FUNGICIDE FOR HORTICULTURAL AND GREENHOUSE APPLICATIONS: For horticultural applications, this product may be used to disinfect (100 ppm/10 minutes or 50 ppm/20 minutes) and sanitize (20 ppm/5 minutes) hard, non-porous surfaces; to treat, control, and prevent (50 ppm/12 hours-overnight) & inhibit re-emergence of organisms (0.25 ppm/continuous treatment) in irrigation and other non-potable water systems. Beginning with a 4,000 ppm Concentrate of  $GO_2^{\text{TM}}$ , use a dilution device or sprayer: for 100 ppm, use a dilution device or sprayer with a 1:40 dilution (dilute one part  $GO_2^{\text{TM}}$  to 80 parts water); for 50 ppm, use a 1:80 dilution (dilute 1 part  $GO_2^{\text{TM}}$  to 80 parts water); for 20 ppm, use a 1:800 dilution (dilute 1 part  $GO_2^{\text{TM}}$  to 800 parts water); for 5 ppm, use a 1:800 dilution (dilute 1 part  $GO_2^{\text{TM}}$  to 800 parts water); for 10.25 ppm, use a 1:16,000 dilution (dilute 1 part  $GO_2^{\text{TM}}$  to 800 parts water); for 0.25 ppm, use a 1:16,000 dilution (dilute 1 part  $GO_2^{\text{TM}}$  to 800 parts water).

FRUIT AND VEGETABLE WASH TO EXTEND FRESHNESS AND SHELF-LIFE: This product may be used at 5 ppm for 1 minute to reduce spoilage microorganisms on raw agricultural commodities ("RACs") in food processing facilities. Beginning with a 4,000 ppm solution of  $GO_2^{TM}$  Concentrate, use a dilution device or sprayer with a 1:800 dilution (dilute 1 part  $GO_2^{TM}$  to 800 parts water) to achieve a 5 ppm solution. Spray or dip RACs, and follow with a potable water rinse or by canning, blanchine, or cooking.

DIRECTIONS FOR USE IN CONTROLLING MICROBIAL POPULATION IN POULTRY PROCESSING WATER: GO,™ may be used as an antimicrobial agent in water used in poultry processing, provided that the residual concentration of GO,™ does not exceed 3 ppm, as determined by an appropriate method in accordance with 21CFR§173.300. For treatment of poultry chill water, maintain a residual concentration of up to 3 ppm GO,™ in the chiller water.

FOOD PLANT PROCESS WATER TREATMENT: GO,™ is effective for use in controlling microbiological growth in flume water and other food processing water systems such as chill water systems and hydro-coolers. The required dosages will vary with process conditions and the degree of contamination present. Depending on the requirements of the specific water system, GO,™ should be applied through a dosing pump to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm. Water containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities in accordance with 21CFR§173.300. Treatment of the fruits and vegetables with GO,™ must be followed by a potable water rinse, or by blanching, cooking or canning.

**INDUSTRIAL COOLING WATER TREATMENT:** For control of bacterial slime and algae in industrial recirculating and one-pass cooling systems, the required dosages will vary depending on the exact application and the degree of contamination present. The required  $GO_2^{\text{TM}}$  residual concentrations range between 0.1 and 5.0 ppm.  $GO_2^{\text{TM}}$  be applied either continuously or intermittently. The typical  $GO_2^{\text{TM}}$  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  $GO_2^{\text{TM}}$  is 0.1 ppm for a minimum one minute contact time.

POTABLE WATER TREATMENT: GO₂™ is used as both an oxidant and a disinfectant in drinking water treatment. The required dosages will vary with source water conditions and the degree of contamination present. For most municipal and public potable water systems, a GO₂™ residual concentration of up to 2 ppm is sufficient to provide adequate disinfection. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards. Maximum use for potable water 50 mg/l.

**BACTERIAL SLIME CONTROL IN PAPER MILLS:**  $GO_2^{TM}$  is effective for use in controlling microbiological growth in white water paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system,  $GO_2^{TM}$  must be applied continuously or intermittently through a dosing pump to achieve a  $GO_2^{TM}$  residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.

MOLLUSK CONTROL IN WATER SYSTEMS: GO<sub>2</sub>™ may be used for mollusk control in commercial and industrial re-circulating and one-pass cooling water systems. The required dosages will vary with the system type, system conditions, and the degree of water contamination present and the desired level of control. Depending on the extent of the infestation, GO<sub>2</sub>™ can be applied as to maintain a residual concentration:

- Veliger Control: Maintain a continuous GO,™ residual of 0.1 0.5 ppm.
- Intermittent Dose: Apply GO₂™ to obtain a residual concentration of 0.2 25 ppm. Repeat as necessary to maintain control.
- Continuous Dose: Maintain a GO,™ residual concentration of up to 2 ppm.

BACTERIAL CONTROL IN OIL WELLS AND PETROLEUM SYSTEMS: GO₂™ is effective in the remediation of bacterial and sulfide contamination commonly found in oilfield production, injection and disposal fluids. The required dosages will vary with process conditions. GO₂™ may be applied either continuously or intermittently through a dosing pump to oil well production water as it is separated from the oil, and before it is re-injected into the well. For continuous feeds, GO₂™ may be applied at dosages slightly higher than sulfide's oxidative demand as determined by a demand study. For intermittent treatment, GO₂™ should be applied at a shock dosage of 200 - 3000 ppm.

WASTEWATER TREATMENT: GO₂™ is effective as both a disinfectant and an oxidant in wastewater treatment. The required dosages will vary with water conditions and the degree of contamination present. For most municipal and other wastewater systems, a residual concentration of up to 5 ppm is sufficient to provide adequate disinfection. For sulfide odor control, between pH 5-9, a minimum of 5.2 ppm (wt) of GO₂™ should be applied to oxidize 1 ppm of sulfide (measured as sulfide ion). For phenol destruction, at pH less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol; at pH greater than 10, 3.3 ppm GO₂™ will oxidize 1 ppm phenol.

# TO CREATE THIS CONCENTRATON USE 1 PART OF GO<sub>2</sub> AND DILUTE TO FOLLOWING PARTS OF WATER

Concentration	Parts of Water	Concentration	Parts of Water	Concentration	Parts of Water
0.10 PPM	⇔ 40,000	2.0 PPM	⇒ 2,000	15.0 PPM	⇒ 266
0.25 PPM	⇔ 16,000	2.5 PPM	<b>⇒ 1,600</b>	20.0 PPM	⇒ 200
0.50 PPM	⇔ 8,000	3.0 PPM	<b>⇒ 1,333</b>	25.0 PPM	<b>⇒</b> 160
1.0 PPM	⇔ 4,000	5.0 PPM	⇒ 800		
1.5 PPM	⇒ 2,666	10.0 PPM	⇒ 400		

STORAGE: DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE AND DISPOSAL. STORE IN COOL, DRY, VENTILATED AREA. STORE BELOW 50° C (122° F). DO NOT FREEZE. KEEP PRODUCT OUT OF DIRECT SUNLIGHT. STORE SEPARATELY FROM WATER AND ACIDS. IF THIS PRODUCT CANNOT BE USED ACCORDING TO LABEL INSTRUCTIONS, CONTACT YOUR STATE PESTICIDE OR ENVIRONMENTAL CONTROL AGENCY, OR THE HAZARDOUS WASTE REPRESENTATIVE AT THE NEAREST EPA REGIONAL OFFICE FOR GILIDANCE

**CONTAINER DISPOSAL:** NON-REFILLABLE CONTAINER: Do not reuse or refill this container. Refer to the following Recycling Statements for proper disposal. Offer for recycling, if available.

**RESIDUE REMOVAL:** TRIPLE RINSE CONTAINER PROMPTLY AFTER EMPTYING. See below.

RECYCLING STATEMENTS: For containers 50 lbs or less: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¾ 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.

For containers greater than 50 lbs: 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. Turn the container over onto its other 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.

- EMERGENCY HANDLING DIRECTIONS: In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well ventilated area. Flood with large volumes of water. If fire occurs, extinguish fire by applying large quantities of water. Any unopened drums near the fire should be cooled by spraying with water.
- ACCIDENTAL SPILL OR RELEASE PROCEDURES: Wear coveralls worn over long-sleeved shirt and long pants. Chemical-resistant footwear and socks must be worn. Recover product and place in an appropriate airtight container. Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Ventilate and clean the spill area with equipment. Avoid formation of dust. Rinse spill residue with soda solution and plenty of water.
- PESTICIDE DISPOSAL DIRECTIONS: 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. ■

#### APPLICATION SOLUTION ADJUSTMENT

IF CHLORINE DIOXIDE TEST STRIP OR CHLORINE DIOXIDE METER INDICATE CONCENTRATION (PPM) OF GO, CONCENTRATION LOWER THAN DESIRED:

- Check expiration date on test strip container. If expired, then recheck using fresh
  test strip from a container that has not reached its expiration date. If expired,
  recheck using a fresh reagent packet.
- If the original test strip container (or reagent packet if using a meter) has not expired OR if the recheck with fresh test strip or chlorine dioxide meter with a fresh reagent packet indicates a lower-than-desired concentration, then do the following:
- After diluting GO<sub>2</sub> Concentrate to the desired final Application Solution concentration, add small amounts of GO<sub>2</sub> Concentrate to the Application Solution about 10% of the volume of the Application Solution at a time- until the test strip or chlorine dioxide meter indicates the desired concentration. Stir or mix the solution gently after each addition. Use a fresh test strip or fresh reagent packet if using a meter for each test.