DIRECTIONS FOR USE

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

For use in a closed feeding system.

Directions for use in the Mechanical or Electrolytic Generation of Chlorine Dioxide:

LegionGuard™ LG25 may be used in the mechanical or electrolytic generation of chlorine dioxide. LegionGuard™ LG25 is fed to chlorine dioxide generation equipment, which produces a aqueous solution of chlorine dioxide by one of the following methods of generation:

1. The chlorine method, which uses LegionGuard™ LG25 and chlorine gas;
2. The electrolytic method, which uses LegionGuard™ LG25 and a combination of a hypochlorite solution, and an acid;
3. The acid-chlorite method, which uses LegionGuard™ LG25 and an acid as the activating agent;
4. The electrolytic method which uses LegionGuard™ LG25 with sodium chloride added as needed.

Your Nalco Sales Engineer can guide you in the selection, installation and operation of generation systems. Consult the instructions on the chlorine dioxide generation system before LegionGuard™ LG25 is used for the first time.

FEED REQUIREMENTS

Feed rates of LegionGuard™ LG25 will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on generator type, LegionGuard™ LG25 may be diluted to a level of use to prepare a 3% to 7.5% active aqueous solution for use in chlorine dioxide generators. In all cases, generated chlorine dioxide solution should be used in a manner to provide adequate and minimal voluntary treatment. The water stream to be treated may be passed directly through the chlorine dioxide generator or treated via side stream injection point. The generation system should be in good working order and capable of achieving chlorine dioxide solutions free from chlorine contamination.

Because of the variability of demand in water and process systems, the dosage of chlorine dioxide required to achieve the target residuals is normally lower for continuous feed systems than for slug or timed feed applications. The minimum acceptable residual for chlorine dioxide, as determined by a certified procedure, is 0.6 ppm for a minimum one minute contact time. Residual determination procedures should be substantiated methods and should also be specific for chlorine dioxide or used in systems where no chlorine contamination is possible. Do not add LegionGuard™ LG25 directly to process water.

Your Nalco Sales Engineer can guide you in the application techniques.

User is responsible for compliance with applicable federal, state and local laws regarding proper use and disposal of the chlorine dioxide generated.

SECONDARY TREATMENT OF POTABLE WATER SYSTEMS:

Chlorine dioxide is used as an antimicrobial agent in drinking water treatment and can be used as part of an overall treatment program to reduce Legionella and other total bacterial counts. The required dosage will vary depending on application conditions and the degree of contamination present. For secondary treatment of potable water systems, a chlorine dioxide residual concentration of 0.09 – 0.75 ppm should be monitored and maintained through the system for antimicrobial treatment and suspended particulate control, risk mitigation from LDB or for the prevention of Legionnaires' disease.

Moni tore the system to ensure that the chlorine concentration does not exceed its maximum contaminant level (MCL) of 0.75 ppm and that chlorine dioxide does not exceed its maximum residual disinfection level (MRDL) of 0.8 ppm. Residual chemistry and byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141), EPA Safe Drinking Water Act, and state drinking water standards.

Chlorine dioxide can serve as an important part of the program for the reduction of Legionella bacteria in potable water systems. A residual concentration of 0.09 ppm is recommended for the reduction of Legionella pneumophila ATCC 33152 (strain Philadelphia-1) bacteria within 30 minutes following intermittent dosage. The use of this product is one component of a Legionella risk reduction strategy that may be included as part of an overall strategy for managing Legionella risk in building water systems, which is recommended by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and published in ASHRAE 188-2014, a program that establishes minimum legionelllosis risk management requirements for building water systems. Under actual operating conditions, chemical treatment alone may not be an effective approach for Legionella control, risk mitigation from LDB or for the prevention of Legionnaires disease.

CORROSIVE LIQUID, TOXIC, N.O.S. (Sodium Chlorite), 8, PG III

Associated with the following regulations:

* NSF Certified to NSF/ANSI 60

* MUL 22 mg/l

* ATCC 33152 (strain Philadelphia-1) bacteria

* Single 0.09 ppm dose

* EPA Reg. No. 1706-244

* EPA Est. No. 5382-KS-1

* EPA Est. No. 70547-IL-1

* NET CONTENTS: ______________ gal. (_______________ liters)

* SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

For use in a closed feeding system.
DIRECTIONS FOR USE

Preparation:

For use in a closed feeding system.

Directions for Use in the Mechanical or Electrolytic Generation of Chlorine Dioxide:
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2. The threhold method, which uses LegionGuard™ LG25 and a combination of a hypochlorite solution, and an acid;
3. The acid-chlorite method, which uses LegionGuard™ LG25 and an acid as the activating agent;
4. The electrolytic method which uses LegionGuard™ LG25 with sodium chloride added as needed.

Your Nalco Sales Engineer can guide you in the selection, installation and operation of generation systems. Consult the instructions on the chlorine dioxide generation system before LegionGuard™ LG25 is introduced.

FEED REQUIREMENTS

Feed rates of LegionGuard™ LG25 will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on the generator type, LegionGuard™ LG25 may be diluted at the point of use to prepare a 3% to 7.5% active aqueous solution for use in chlorine dioxide generators.

In all cases, generated chlorine dioxide solution should be applied in such a manner to ensure adequate mixing of the solution. The dose may either be obtained by delivering an aqueous solution of chlorine dioxide through the chlorine dioxide generator or treated via side injection point. The generation system employed should be in good working order and capable of achieving chlorine dioxide solutions free from contamination.

Because of the variability of demand in water and process systems, the dosage of chlorine dioxide required to achieve the target residuals is normally lower for continuous fed systems than for slug or timed applications. The minimum acceptable residual for chlorine dioxide, as determined by a certified procedure, is 0.1 ppm for a maximum one minute contact time.

Residual determination procedures should be substantiated methods and should also be specific for chlorine dioxide or used in systems where no chlorine contamination is possible. Do not add LegionGuard™ LG25 to systems where chlorine contamination is present.

Your Nalco Sales Engineer can guide you in the application techniques.

User is responsible for compliance with applicable federal, state and local laws regarding proper use and disposal of the chlorine dioxide generated.

SECONDARY TREATMENT OF POTABLE WATER SYSTEMS:

Chlorine dioxide is used as an antimicrobial agent in drinking water treatment and can be used as part of an overall strategy for managing Legionella risk in... by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 141), EPA Safe Drinking Water Act, and state drinking water standards.

Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and rinse with water to reduce the chlorine dioxide for later use or disposal. Repeat this procedure two more times.

Pressure Rinsing as follows: Empty the remaining contents into application equipment or a mix tank and rinse with water to reduce the chlorine dioxide for later use or disposal. Rinse pressure washing equipment in the side of the container, and rinse out 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.

NOTE TO PHYSICIAN:

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.

If inhaled:
Do not give anything by mouth to an unconscious person.

If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Do not induce vomiting unless told to do so by the poison control center or doctor.

Call a poison control center or doctor for treatment advice.

If swallowed:
Do not give anything by mouth to an unconscious person.

Have a person drink a glass of water immediately if able to swallow.

Do not induce vomiting until told to do so by the poison control center or doctor.

Call a poison control center or doctor for further treatment advice.

Residual Chlorine or pH remain under control for secondary treatment of potable water systems.

If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Do not give anything by mouth to an unconscious person.

Call a poison control center or doctor immediately for treatment advice.

Call a poison control center or doctor for further treatment advice.

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Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.

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Do not give anything by mouth to an unconscious person.

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Do not induce vomiting until told to do so by the poison control center or doctor.

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Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.

If inhaled:
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If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Do not induce vomiting unless told to do so by the poison control center or doctor.

Call a poison control center or doctor immediately for treatment advice.

Call a poison control center or doctor for further treatment advice.
It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled. Harmful if absorbed through skin. Harmful if swallowed. Do not breathe vapor or spray mist. Wear protective eyewear such as splash-proof goggles, face shield, or safety glasses. Wear protective clothing and rubber gloves when handling this product. For product spills or conditions where significant misting or vapors may occur wear a respirator with an organic-vapor removing cartridge with a prefilter approved for organic-vapor removal, a NIOSH approval number prefix (TC- 25C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (SV) cartridge or canister with any N, R, P or HE prefilter. Do not get on eyes, in skin or clothing. 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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, marinas, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority. The permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewage systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

FIRST AID

In case of eye contact, rinse immediately with plenty of water for 15 to 20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing. Call a poison control center or doctor immediately for treatment advice.

If on skin:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. 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 swallowed:

Call a poison control center or doctor immediately for treatment advice.

Before you use LegionGuard™ LG25, read the entire label.

Chlorine dioxide is used as an antimicrobial agent in drinking water treatment and can be used as part of an overall program for the reduction of Legionella pneumophila. The required dosage will vary depending on application conditions and the degree of contamination present. For secondary treatment of potable water systems, a chlorine dioxide residual concentration of 0.09 – 0.75 ppm should be monitored and maintained through the system for antimicrobial treatment and suspended particle reduction. Monitor the system to ensure that the chlorite concentration does not exceed its maximum residual disinfection level (MBDL) of 0.8 ppm. Residual chemistry and byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141), EPA Safe Drinking Water Act, or state drinking water standards. Chlorine dioxide can serve as an important part of the program for the reduction of Legionella bacteria in potable water systems. A residual concentration of 0.09 ppm chlorine dioxide has been shown in laboratory testing to reduce Legionella pneumophila ATCC 33152 (strain Philadelphia-1) bacteria within 30 minutes following intermittent dosing. The use of this product is one component of a Legionella risk reduction strategy that may be included as part of an overall approach to managing Legionella risk in building water systems, which is recommended by the American Society of Hematologists, the American Society for Testing and Materials (ASTM) Standard E-155, a protocol standard that establishes minimum legionellosis risk management requirements for building water systems. Under actual operating conditions, chemical treatment will not be an effective approach for Legionella control, risk mitigation from LDB or for the prevention of Legionnaires disease.

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

For use in a closed feeding system:

Directions for Use in the Mechanical or Electrolytic Generation of Chlorine Dioxide:

LegionGuard™ LG25 may be used in the mechanical or electrolytic generation of chlorine dioxide. LegionGuard™ LG25 is fed to chlorine dioxide generation equipment, which produces an aqueous solution of chlorine dioxide by one of the following methods of generation:

1. The chlorine method, which uses LegionGuard™ LG25 and chlorine gas;
2. The acid-chlorite method, which uses LegionGuard™ LG25 and sodium chlorite; and
3. The acid-chlorite method, which uses LegionGuard™ LG25 and an acid as the activating agent;
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