FORMULA 3007
CHLORINE DIOXIDE PRECURSOR FOR MICROBIAL
CONTROL IN WATER AND WASTEWATER

ACTIVE INGREDIENT:
Sodium Chlorite .......................... 7.5%
OTHER INGREDIENTS: .......................................................................................... 92.5%
TOTAL ............................................................................................... 100.0%

KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID

IF ON SKIN OR CLOTHING
• 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
• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
• If cough or difficulty in breathing develops, consult a physician immediately.
• If breathing is difficult, move to a fresh air.
• Do not give anything by mouth to an unconscious person.
• Remove contaminated clothing/PPE immediately after first 5 minutes.

IF IN EYES
• IF SWALLOWED
• IF INHALED
• Have person drink a glass of water immediately if able to swallow.
• Call a poison control center or doctor immediately for treatment advice.
• 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.
• Do not give anything by mouth to an unconscious person.
• Move person to fresh air and monitor for respiratory distress.
• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
• Do not give anything by mouth to an unconscious person.
• Do not give anything by mouth to an unconscious person.
• Call a poison control center or doctor immediately for further treatment advice.

Product have the container or label with you when calling a poison control center or doctor going for treatment.

FOR CHEMICAL EMERGENCY SPILL, LEAK, FIRE, EXPLOSION, OR AN ACCIDENT CALL CHEMTREC AT 1-800-424-9300. You may also call the Rocky Mountain Poison Control Center at 1-303-623-5716 for emergency medical treatment information.

NOTE TO PHYSICIAN
Probable mucosal damage may contraindicate the use of gastric lavage. Treat as a corrosive. Inhalation has the potential for delayed pulmonary edema. Ingestion of small amounts has been reported to cause methemoglobinemia, hemolysis, and glutathione depletion, followed by renal failure. This chemical acts similarly to its related compound chlorate, and produces a drug-induced G6PD deficiency. Methylene blue has not been reported as effective. Consult the Published Case Report PMID 22996135 for the case description and treatment utilized.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER: CORROSIVE. Causes irreversible eye damage. Avoid skin contact by wearing recommended personal protective equipment. Causes skin burns. Harmful if swallowed, inhaled, or absorbed through skin. Do not get in eyes, on skin, or clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Wear chemical safety goggles and use a face shield where splashing and spraying is possible. Wear appropriate chemical resistant gloves (neoprene is a protective material type). Wear protective clothing to minimize skin contact when handling. Wash hands thoroughly with soap and water after handling. Remove contaminated clothing/PPE immediately 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, 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 into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL HAZARDS
Dry sodium chloride is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with garbage, dirt, organic matter, household products, chemicals, soap products, paints, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

DIRECTIONS FOR USE
It is violation of Federal law to use this product in a manner inconsistent with its labeling.

DIRECTIONS FOR USE IN THE MECHANICAL OR ELECTROLYTIC GENERATION OF CHLORINE DIOXIDE AS A DISINFECTANT, FOR MICROORGANISM CONTROL IN WATER AND WASTEWATER SYSTEMS
FORMULA 3007 may be used in the mechanical generation of chlorine dioxide for use in controlling microorganisms in water and wastewater systems. FORMULA 3007 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 FORMULA 3007 and chlorine gas;
(2) The hypochlorite method, which uses FORMULA 3007 and a combination of a hypochlorite solution, and an acid;
(3) The acid-chlorite method, which uses FORMULA 3007 and an acid as the activating agent; or,
(4) The electrolytic method which uses FORMULA 3007, with sodium chloride added as needed.
Your Garratt-Callahan representative can guide you in the selection, installation and operation of generation systems. Consult the instructions on the chlorine dioxide generation system before using FORMULA 3007.

FEED REQUIREMENTS
Feed rates of FORMULA 3007 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, FORMULA 3007 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 must be applied in such a manner to ensure adequate mixing and minimal volatilization. The water stream to be treated may either be passed directly through the chlorine dioxide generator or treated via side stream injection point. The generation system employed must 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 verified procedure, is 0.1 ppm for a minimum one minute contact time.

Residual determination procedures must be substantiated methods and must also be specific for chlorine dioxide or used in systems where no chlorine contamination is possible. Do not add FORMULA 3007 directly to process water.

SOLD BY: GARRATT-CALLAHAN COMPANY

REV 10/8/2015
FORMULA 3007

APPLICATIONS

POTABLE WATER AND WASTEWATER DISINFECTION:
For most municipal and public potable water systems a chlorine dioxide residual concentration up to 2.0 ppm is sufficient to provide adequate disinfection. Residual disinfectant and disinfection by products must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards. For wastewater and sewage applications, residual chlorine dioxide concentrations up to 5.0 ppm are generally adequate.

FOOD PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS, AND BREWERIES:
For microbial control in typical food processing water systems, such as flume transport, chill water systems, hydrocoolers, beverage and brewery pasteurizers and bottle rinsing, apply FORMULA 3007 through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 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 chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

POULTRY PROCESSING WATER:
Use FORMULA 3007 to generate chlorine dioxide for use as an antimicrobial agent in water used in poultry processing in an amount not to exceed 3 ppm residual chlorine dioxide as determined by an appropriate method in accordance with 21CFR § 173.300.

AQUEOUS DISINFECTION SYSTEMS FOR CIP CLEANING:
If the concentration of chlorine dioxide generated from FORMULA 3007 exceeds 5.0 ppm, a potable water rinse must follow treatment. Care must be taken to ensure the biological and chemical quality of the potable water.

GENERAL INDUSTRIAL PROCESS WATER TREATMENT (OILFIELD INJECTION WATER, WHITE WATER PAPER MILL SYSTEMS, AND REcirculating COOLING TOWERS):
For control of microbial slime, these systems will require a chlorine dioxide residual concentration ranging between 0.25 and 5.0 ppm. The FORMULA 3007 dosage needed to achieve these levels will vary widely depending on the exact application.

Please consult your Garratt Callahan Company representative for assistance in determining the correct dosage level.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

Storage:
Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of spill, flood the area with large quantities of water.

Pesticide Wastes:
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: Nonrefillable Container.
Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple Rinse or Pressure Rinse container promptly after emptying.

Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.