DIRECTIONS FOR USE

This is a 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, or for Microorganism Control in Water and Wastewater Systems

AquaPrime® NeoKlor® may be used in the mechanical generation of chlorine dioxide for use in controlling microorganisms in water and wastewater systems. AquaPrime® NeoKlor® 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 AquaPrime® NeoKlor® and chlorine gas;
2. The hypochlorite method, which uses AquaPrime® NeoKlor® and a combination of a hypochlorite solution, and an acid;
3. The acid-chlorite method, which uses AquaPrime® NeoKlor® and an acid as the activating agent; or,
4. The electrolytic method which uses AquaPrime® NeoKlor®, with sodium chlorite added as needed

Your Neogen Corporation representative can guide you in the selection, installation and operation of generation systems. Consult the instructions on the chlorine dioxide generation system before using AquaPrime® NeoKlor®.

FEED REQUIREMENTS

Feed rates of AquaPrime® NeoKlor® 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 generation type, AquaPrime® NeoKlor® 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 as 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 be a systems where no chlorine contamination is possible. Do not add AquaPrime® NeoKlor® directly to process water.

APPLICATIONS

POULTRY 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 byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and any other applicable 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, hydrobacterial, beverage and brewery pasteurizers and bottle rinsing, apply AquaPrime® NeoKlor® 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 21 CFR § 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.

CHEMICAL HAZARDS

Dry sodium chlorite 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 particulate, dirt, organic matter, household products, chemicals, soap products, paint, products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

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 before wash.

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 aquatic bodies 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.

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Water, containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning. The chlorine dioxide method, which uses NeoKlor® and chlorine gas;

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