# Purogene®

## premium-blend CHLORINE DIOXIDE

Purogene is a premium-blend chlorine dioxide solution crafted specifically to eliminate gram-positive and gram-negative bacteria, yeasts, mold and fungi, and is scientifically proven to be a powerful, broad-spectrum antimicrobial.

A pioneering product in specialty chlorine dioxide, Purogene is hailed as the best line of defense for disease management. With the outbreak of Phytophthora infestans (Late Blight), Purogene is not only effective in controlling this organism, but a wide-range of other tuber-related diseases and spoilage organisms. In addition to its powerful antimicrobial properties, Purogene also eliminates odors without affecting nutritional quality. Purogene's formulation is virtually odorless and environmentally friendly. Because of its stability, Purogene can be stored and transported with no special consideration.

Purogene is scientifically-proven to inhibit antimicrobial and enzymatic activity as well as eliminate odors without affecting nutritional quality. Used in misting applications and pre-storage rinse, Purogene controls many antimicrobial activities. Depending on conditions, Purogene is used at concentrations of between 200 and 400 ppm. Because Purogene is shipped as Sodium Chlorite - simply activate the solution with a small amount of foodgrade acid before applying. This activation produces Chlorine Dioxide, a highly-effective antimicrobial and enzymatic inhibitor.

Purogene's formulation is virtually an odorless, clear, stable solution, which can be stored, transported and used without special consideration.



Used properly Purogene is non-corrosive, easy to use and most importantly - Safe.

Purogene is classified as a non-hazardous compound and does not require any special USDOT permits.

Bio-Cide International Corporate Offices

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Bio-Cide International pioneered stored-potato pathogen control in the early 1970's, working with academians, government and industry.

Cooperative research and testing began with Michigan State University as well as The University of California, Berkeley to determine Purogene's effectiveness against potato bacteria and fungal pathogens. The positive results of that testing has resulted in the milestone accomplishments controlling disease that we see today.

Recent work performed by the USDA, Michigan State University, North Dakota State University and the University of Manitoba substantiated earlier studies as to Purogene's effectiveness. Not only does Purogene control the Late Blight organism but also controls other soft and black rot organisms which make conditions for Late Blight much worse. In addition, Bio-Cide donated resources to the construction of the University of Idaho experimental research station at Kimberly, ID to help advance a variety of potato research activities. Bio-Cide has also committed itself to accumulating the massive amount of technical data required to gain full Section 3 approval as dictated by new directives under the Food Quality Protection Act.

#### BIO-CIDE INTERNATIONAL PROFILE

For nearly 30 years, Bio-Cide International has been the market leader and the preferred source for stabilized chlorine dioxide. Based in Norman, Oklahoma, the United States-based corporation manufactures a versatile line of chemical disinfectants, sanitizers, deodorizers and preservatives.

Each product Bio-Cide produces is based on the corporation's signature solution, a proprietary chlorine dioxide formulation - Oxine®. The research-based solutions are effective on a broad spectrum of microorganisms, are proven safe and environmentally friendly.

Research has proven these products to be highly effective against a wide-variety of microorganisms in short contact times. The products have been tested for quality, effectiveness and toxicity. In addition, Bio-Cide has obtained numerous government approvals, and leads the industry in licenses and registrations for many industries. In addition, to ensure quality and authenticity and safety, each Bio-Cide product is either registered or approved by the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA) or the United States Department of Agriculture (USDA).

Bio-Cide's products are instrumental in the elimination of microorganisms found in medical professions, agriculture industry, water treatment, food processing plants, dairy and bottling plants, the seafood industry, air duct ventilation systems, the oil field industry, the pulp and paper industry and the animal health industry.

The Company's market presence is characterized by substantial penetration of selected industrial and consumer target markets, a strong and growing international distribution network, and a reputation for innovation and high quality products and service.

The technical advances from Bio-Cide's products have resulted in a virtually odorless, clear, stable formula which can be stored, transported and used without special consideration. These unique products from Bio-Cide offer the ability to eliminate harmful microorganisms encountered in the food products and processing equipment industry as well as certain specific applications in dental, hospital and laboratory environments.

As a pioneer in the chlorine dioxide arena, the initial applications were for water treatment, animal health environments as well as household and agricultural purposes. The success of these products encouraged expansion into larger commercial applications where product approvals have been granted by the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA).

#### APPLICATIONS:

Fogging Humidification

- Bin Piler
- Potato Barn

DIRECT POTATO
APPLICATIONS:

PRE-STORAGE RINSE

### **PUROGENE:**

- Proven Efficacy
- Low Corrosion
- Section 18 Approved
- User Friendly
- Non-flammable
- Non-explosive
- Very Stable
- Clear & Colorless



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