

FRESH PRODUCE ENHANCEMENT WITH CHLORINE DIOXIDE

- Broad spectrum antimicrobial activity
- Effective over a wide pH range
- Micro-organisms cannot develop immunity to chlorine dioxide
- Less corrosive than chlorine
- No hazardous residues
- Oxidizes iron and manganese
- Destroys sulfide and phenols

Fresh fruits and vegetables can carry surface flora of microorganisms consisting of harmless soil organisms, fungal spores and yeasts as well as potential pathogens. Superficial washing commonly is used to remove these contaminants. Often, minimally processed fruits and vegetables are transported via flumes through processing plants. Because of these numerous exposures to water, the potential for microbial cross contamination is high.

Bioslimes also form in rinse and flume systems that serve as a contaminant reservoir, potentially cross contaminating all of the produce. To ensure sanitary conditions within these systems, produce must be protected from contamination. Effective microbial control of process waters and rinses will result in less bacterial and microbial contamination, and a cleaner product, with excellent shelf life and no chloro-organic residues.

Efficient and Cost Effective

International Dioxide's chlorine dioxide can be used at much lower doses than typical halogen antimicrobials with far superior microbial control. Its aggressive attack on bioslimes ensures less fouling of piping and practically eliminates bacterial "seeding" of process waters. Chlorine dioxide doesn't produce halogenated organic by-products, which are serious problems associated with chlorine and bromine compounds. Typically, in the preparation of fresh produce, a 5ppm available chlorine dioxide dose added to rinse water, followed by a final potable water rinse, will reduce the total microbial loading by a factor of 10^2 or a 2 log reduction. As a result, the shelf life of the produce can be extended by several days.



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Fast and Easy Applications

International Dioxide's ANTHIUM DIOXCIDE[®], a 5% stabilized chlorine dioxide solution, can be utilized for small volume applications. For high volume applications, an International Dioxide OXYCHLOR[®] on-site generator is provided to safely and easily produce chlorine dioxide solution at the point of application, using ADOX[®] sodium chlorite precursor solutions.

Chlorine Dioxide Capabilities

Chlorine dioxide is an excellent choice for controlling microbial contamination in pasteurizers and hydrocoolers or when the product is further processed and transported by water flumes to be frozen or sealed in cans or jars.

EPA and FDA Approval

ANTHIUM DIOXCIDE[®] and ADOX[®] solutions are registered as terminal sanitizers for use on hard surfaces in production areas as well as in any CIP or COP systems that require routine sanitation or disinfection. FDA regulation 21 CFR 173.300 allows the addition of chlorine dioxide to wash fruits and vegetables.

Approved Applications

- Microbial control of flumes, processing waters, retort waters, cooling waters, such as hydrocoolers, cooling canals, warmers, and coolers.
- Fruit and vegetable rinses. Uncut and unpeeled, as well as cut and peeled. Potable rinse required.

- Food contact surface sanitizer for all processing equipment surfaces.
- Cooling towers for slime and odor control.
- Rendering systems for odor control.
- Whole plant potable water treatment.

Before using product, always read and follow label instructions.

More Information Available

International Dioxide, Inc. is a world-leading specialty chlorine dioxide company, supplying high-value biocidal products and related technology for disinfecting, sanitizing and controlling odors.

For additional information about International Dioxide Inc. ANTHIUM DIOXCIDE[®], ADOX[®], and OXYCHLOR[®] products, or their applications, please call our sales office.

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