

FAQ SELECTROCID[®]

Why does Highland Fresh Technologies require application of Selectroicide[®] high-purity chlorine dioxide in a brush washer process instead of a dump tank?

The primary function of a sanitizer used in a recycled water system like a dump tank is to kill the organisms that accumulate in the water. While Selectroicide biocide is effective in killing microbes in water, the dip or recycled dump tank method of application is not the best for actually reducing the levels of spoilage microbes on the fruit surface. Microorganisms attach themselves to fruit surfaces, and are thus very different than soil or leaf debris that may be sitting loosely upon the fruit. Brush washing to scrub the fruit surface helps expose organisms that are more firmly attached to the fruit. Through a combination of physical scrubbing action and Selectroicide biocide action, brush washing can provide a more consistent reduction of spoilage microbes on fruit surfaces. Another benefit of applying Selectroicide solution in the brush washing process is that the biocide is able to minimize the potential for cross-contamination in this step. Brushes can simultaneously remove and spread field contaminants that increase decay. Selectroicide high-purity chlorine dioxide minimizes the potential for brushes to increase decay through cross contamination.

Can I use Selectroicide solution in my tomato dump tank?

The State of Florida has recently adopted new rules governing the management of tomato dump tanks. These rules require the use of chlorine (typically chlorine bleach) within specific operating parameters whereby concentration, solution pH, and temperature of the water must be closely monitored. Highland Fresh Technologies believes the most beneficial and cost effective way to utilize Selectroicide solution is in the brush washing process, rather than the dump tank. In many instances, our customers utilize Selectroicide spray in the brush washer after the tomato dump tank.

Why do I have to sign a purchase agreement to use the Selectroicide application system?

The Highland Fresh Technologies purchase agreement defines warranty items for our patent pending application system. In a few cases, clients have modified the application system after installation and significantly altered the manner in which the unit operates and voided their warranty. The purchase agreement is necessary to ensure both parties understand the terms and conditions of sale.

How is Selectroicide high-purity chlorine dioxide different from bleach?

Selectroicide solution is a high-purity form of chlorine dioxide, a water soluble gas. Chlorine bleach is a different chemical, with different properties. Chlorine bleach must be used in a tightly controlled pH range to maintain a biocide effect, and it is known to be corrosive to equipment surfaces, including stainless steel. Selectroicide high purity chlorine dioxide is effective across a broad pH range and is compatible with most materials at the concentrations registered for use.

How does Selectroicide 12G improve my arrivals?

Selectroicide 12G is an EPA registered biocide that can be used to reduce the level of spoilage microbes on produce. By minimizing potential cross contamination in brush washing and reducing the level of spoilage organisms, Selectroicide biocide reduces the potential to increase spoilage during postharvest handling. Selectroicide solution cannot stop decay in produce that has been infected prior to or during harvest.

Does Selectroicide 12G kill food borne pathogens like Salmonella?

Selectroicide 12G is EPA registered as an equipment sanitizer against a broad range of microorganisms, including some food borne pathogens. There are, however, no EPA recognized standardized test protocols for testing sanitizer activity against food borne pathogens on produce surfaces. Thus, Highland Fresh Technologies cannot and does not make claims regarding Selectroicide biocide effects on food borne pathogens on produce.

Can Selectroicide high-purity chlorine dioxide eliminate decay?

Selectroicide biocide reduces the level of spoilage organisms on produce surfaces, but it cannot eliminate all decay. Any decay that begins with infections in the field or during harvest cannot be stopped by a sanitizer treatment, even one as effective as Selectroicide high-purity chlorine dioxide. The spread of decay inoculum in the postharvest handling process can be minimized by proper use of Selectroicide solution.

🌿 I've heard of something called stabilized chlorine dioxide, is that the same thing as Selectocide high-purity chlorine dioxide?

No, stabilized chlorine dioxide is a misnomer. Products described in this manner are actually formulations of a pre-cursor chemical that, when reacted with a second chemical (typically an acid), forms a small amount of chlorine dioxide and higher levels of other byproducts such as chlorite and chlorate salts. In contrast, Selectocide high-purity chlorine dioxide is a one step generation process requiring only potable water to produce a greater than 99% pure solution of chlorine dioxide.

🌿 Can I use Selectocide solution to sanitize my equipment?

Yes, Selectocide 12G is EPA registered as an equipment sanitizer, including applications to food contact surfaces. Selectocide solution does not have to be rinsed from food contact equipment surfaces when used according to label instructions.

🌿 If I have some boxes of Selectocide 12G left over at the end of the season, is it still OK to use next season? How long does it last?

A box of un-reacted Selectocide 12G has a 2 year shelf life from the date of manufacture when stored properly. Check the expiration date on the outside of the foil pouch to determine the expiration date of the product. Carrying over unopened Selectocide 12G in the foil pouch from one season to the next should not be an issue if it has been stored properly (store out of direct sunlight and below 122°F).

🌿 Another company told me their product doesn't have to be registered with EPA, and they say it kills all the microorganisms that I am concerned about. Why is Selectocide 12G EPA registered if this other product isn't?

EPA requires registration for any product being used on raw produce that makes performance claims as an antimicrobial. By definition, such compounds are designated as pesticides and fall under the jurisdiction of EPA. EPA reviews the toxicity and safety of such products and will issue a registration number for the product before it can legally be used on raw produce. Selectocide 12G is registered with the US EPA and all 50 states for use on raw agricultural commodities after harvest. The Selectocide 12G label carries an EPA registration number that is specific to the product. Products that make no antimicrobial claims, such as protective coatings used to control weight loss, are exempt from this EPA requirement. Such products must comply with FDA regulations for food additives. Check with your state department of agriculture for clarification if someone tries to sell you an unregistered product that they claim will reduce decay or kill microorganisms on raw produce.

Selectocide is a registered trademark and property of Selective Micro Technologies, Danvers, MA

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