



HOSHIZAKI



EcO₃Ice™

Ice Machine Sanitation

FAQs

Q: How does EcO₃Ice work?

A: EcO₃Ice easily connects to the incoming ice machine water line, generating dissolved ozone. The treated water sanitizes the ice machine. Ice made from the ozone-treated water effectively sanitizes surfaces in the ice machine, bin, and related parts.

Q: How is the ozone created in the water?

A: With EcO₃Ice, a small amount of ozone is created by electrolysis directly in the water as it flows through a cell equipped with electrodes made of patented, long-lasting, boron-doped solid synthetic diamond.

Q: When it is frozen, is the ozone inside or outside of the cube?

A: The ozone is present throughout the ice cube, with a higher concentration in the outermost layer. The actual amount of ozone contained in the ice cube is very small.

Q Does the ozone end up in the customer's beverage? Is it safe?

A: Ozone is FDA-approved as a food and water additive. However, the amount of residual ozone in cubes from EcO₃Ice-treated machines is well below levels of detection by the average person and does not have any effect on the taste.

Q: Will the ozone in the ice impart any adverse effect on beverage taste?

A: To the contrary, it is important to note that ozone is recognized to be an effective oxidant used to reduce unpleasant taste and odors in drinking water. The EPA Guidance Manual, *Alternative Disinfectants and Oxidants*, specifies ozone for unpleasant taste and odor removal.

Q: How long does the ozone created remain effective?

A: Ozone is well preserved in ice and dissipates gradually and safely in the ice bin as the ice melts. In practical terms, the ozone remains effective for the entire period between freezing, storage and transportation, until it is dispensed and served, at which time it dissipates harmlessly.

Q: What happens to ice sitting at the bottom of the ice bin for an extended period of time?

A: The ice gradually melts and the resulting water drains from the bin. The “ice melt” contributes to the ozone’s ability to sanitize bin surfaces, as well as the drain fixture and line.

Q: Does the device work with any size machine or ice bin?

A: EcO₃Ice works with all Hoshizaki cuber and flaker ice machines with ice production up to 2600 lbs per day, but should not be used on ice and water dispensers. The device is effective with standard size storage bins.

Q: How does operator know when to replace the cartridge?

A: EcO₃Ice’s user-friendly design includes easy-to-understand indicator lights to tell the operator when it’s almost time to change and when it’s time to change the cartridge. There are also indicators to show that the unit is producing ozone correctly, or that it requires service.

Q: How often will I have to replace the cartridge?

A: The cartridge needs to be renewed, on average, every 6 to 12 months, depending upon several factors including ice machine model, ice-making volume, water quality, ambient temperature or other environment specific factors.

Q: Is ozone gas released in an ice machine a possible inhalation hazard?

A: The electrolytic method of producing ozone from-water in-water has been optimized for compact spaces. It kills bacteria and other microorganisms within the ice bin, while keeping ozone gas levels safely below OSHA PEL (permissible exposure limits) standards for safety. Using ozone gas is harder to control and may raise worker exposure issues.

Q: Does the ozone degrade materials like polymers and metals in the machine?

A: The method of producing ozone from-water in-water gradually releases ozone in a dissolved liquid form within the ice storage bin, thus avoiding high concentrations of ozone gas that can have adverse effects on the ice machine materials.

Q: Does the EcO₃Ice have independent laboratory validation of the sanitation claims?

A: Efficacy of the Franke EcO₃Ice device on biofilm has been verified by an independent lab. Results for one type of bacteria—*e. coli*—clearly indicate the device achieved a total kill (5-log). Testing for other types of microorganisms is ongoing. Meanwhile, field-testing has clearly demonstrated dramatic reduction in reappearance and growth of microorganisms.