

Chemicals for Cleaning and Sanitizing an Ice-O-Matic Commercial Ice Machine

The cleaning and sanitizing of any commercial ice machine are important procedures all operators need to have in their preventive maintenance protocol. While similar, these two procedures are uniquely different and accomplish different things. Cleaning or de-liming, dissolves the mineral deposits on the evaporator and removes scale, calcium and other mineral buildup. Sanitizing disinfects the machine and removes microbial growth including mold and slime.

In either case, it is important to use solutions that do not harm the ice machine. Never use cleaning or sanitizing solutions that contain Nitric Acid, Sulfuric Acid, Hydrochloric Acid, Carboric Acid, Acetic Acid, diluted Acetic Acid or non-food-grade vinegar (concentration of acetic acid greater than 6% and does not contain enzymes created in processing) or any chlorine-based solution such as bleach, chlorine dioxide or any type of salts such as potassium chloride (potassium salts) or sodium chloride. Check the label or the manufacturer's Material Safety Data Sheet (MSDS) to be sure. These chemicals can attack the surface of the evaporator as well as other metal components causing corrosion and flaking. Reverse Osmosis (RO) water can be very acidic and can attack the evaporator and other metal in the ice machine. Because the RO process removes all minerals and metals from the water it can promote the faster growth of microbial, mold and slime. If RO water is used, then Ice-O-Matic recommends the water pH is verified to be a neutral 7.0 to minimize the corrosive effects. Incorrect cleaners, sanitizers, and RO water that does not have a neutral pH could void the machine's warranty.

Ice-O-Matic Ice Machine Cleaning

Cleaning or de-liming an ice machine refers to the process of removing mineral buildup and scale from the evaporator and other components. Ice-O-Matic recommends cleaning the ice machine every 6 months, but no more than once per month to avoid potential damage to the machine. Frequency of cleaning may depend on water quality and filtration system used. It is the responsibility of the operator to determine the optimal frequency for their particular environment. Cleaning will not remove microbial, mold, or slime. The machine should always be sanitized after cleaning, and chemicals used for cleaning must be thoroughly purged and rinsed prior to sanitizing.

Ice-O-Matic requires a "nickel-safe" cleaner such as Nu-Calgon Nickel-Safe Ice Machine Cleaner. Typically the chemical composition is as follows:

- Water 53% to 82%
- Phosphoric Acid 15% to 40%
- Citric Acid 3% to 7%

In addition, for CIM models revision 4 and higher, Kay Delimer may also be used. At dilution, the chemical composition is citric acid 5-10%.

Ice-O-Matic recommends cleaning be done by a trained technician and that they follow detailed steps as prescribed in the Installation and Service Manuals.

Ice-O-Matic Ice Machine Sanitizing

Ice-O-Matic recommends sanitizing or disinfecting an ice maker a minimum of every six months, but no more than once per month to avoid potential damage to the machine. Frequency of sanitizing may depend on whether the machine is in a high yeast environment or if RO water is being used. It is the responsibility of the operator to determine the optimal frequency for their particular environment.

Ice-O-Matic requires a "nickel-safe" sanitizer such as Nu-Calgon IMS-III. Sanitizing is a simple matter of running the approved sanitizer through the ice machine and wiping down surfaces with the sanitizer. In addition, for CIM models revision 4 and higher, Kay-5 Sanitizer may also be used.

If being done at the same time as the cleaning process, sanitizing must be done after the cleaning process. Chemicals used for sanitizing must be thoroughly purged and rinsed after use. Follow the process as prescribed in the Installation and Service Manuals.

Note: this process requires the ice be removed from the bin.