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PRESS RELEASE**



How to Inhibit Corrosion in Ice Rink Cooling Systems

In winter, more ice rinks are in operation than usual. Some are chilled simply by subzero outdoor temperatures. Others—sometimes even in very cold climates—are cooled with chiller systems to ensure good ice even during warm spells. Still other ice arenas at universities or sports facilities are open year-round and cannot operate without refrigeration in an indoor environment.



Unfortunately, corrosion problems can lead to premature repairs and replacements in the cooling system. Cortec® offers the following suggestions to avoid these maintenance headaches.

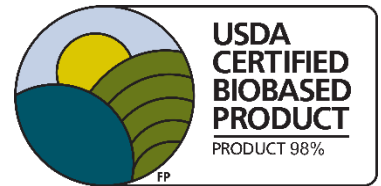
Why Corrosion in Ice Rink Chillers?

Brine is the key to keeping rinks below the freezing point without freezing the coolant itself. Calcium chloride or sodium chloride are often used for these antifreeze properties. Unfortunately, saltwater solutions are highly

corrosive and can eat away at piping walls until they eventually leak. At that point, not only does the system need to be repaired—the leak can lead to corrosion on external metal components where the brine drips. The addition of a corrosion inhibitor additive to brine water should therefore be an essential part of rink maintenance when seeking continuous service and maximum equipment service life.

Corrosion Inhibitor Additives for Brine

Cortec® [M-605 Series additives](#), which are primarily thought of as corrosion inhibitors for deicing salts, can also be used in closed loop systems with brine. M-605 is a powder designed to suppress corrosion in the presence of NaCl, while M-605 PS is a powder most effective in CaCl₂ solutions and protects aluminum-based alloys as well as ferrous metals. Those with an eye to sustainability will appreciate the fact that M-605 PS is also a USDA Certified Biobased Product. Neither additive contains chromate, nitrite, or phosphate inhibitors.



M-605 PS

Reducing Corrosion at a University Ice Arena

The benefits of M-605 PS can be seen in the case of a university ice arena that used a 30% CaCl₂ solution in its cooling system. The brine was causing high corrosion rates on carbon steel components. However, after M-605 PS was added to the brine at 0.5%, corrosion came down to an acceptable level.



Don't Miss This Part of Ice Rink Maintenance!

While the addition of a corrosion inhibitor may not end all corrosion in an ice rink chiller, it can greatly reduce the corrosive effects of brine, minimizing corrosion complications and fostering the longevity of the closed loop system. In so doing, corrosion control plays an important role in ice rink maintenance that could save time and money in the long run. [Contact Cortec® to learn more about corrosion control in your ice rink cooling system.](#)

Keywords: ice rink corrosion, ice rink cooling systems, closed loop corrosion, corrosion inhibitors, corrosion inhibitors for brine, ice arena maintenance, Cortec, how to inhibit corrosion in ice rinks, corrosion inhibitors for deicing salts, brine corrosion

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