



The Right Chemistry

SAFE-KOOL

The No-Flush Antifreeze!

INTRODUCTION:

SAFE-KOOL is a non-toxic, environmentally friendly revolutionary new anti-freeze product ideally suited for "winterization" of commercial and industrial chilled water coils. SAFE-KOOL eliminates risk of ice damage in seasonally drained coils. SAFE-KOOL, freeze protects without the risk of chilled water "souring" after coil reactivation. SAFE-KOOL is specifically marketed to replace ethylene or propylene glycol containing products traditionally used in winterization procedures. SAFE-KOOL avoids microbial breakdown of nutrient rich glycol unavoidably captured by system water after resumption of full system operation.

Winterization is a process of protecting seasonally deactivated cooling coils located in ventilation ducts potentially carrying sub-freezing winter air. Inactive coils can possibly rupture due to freezing at low spots of long, naturally sagging horizontal tubes. Common glycol based anti-freeze products have traditionally been used to provide needed freeze protection. These products while effective at freeze protection have historically resulted in safety & handling issues and system operational problems post start-up.

SAFE-KOOL improves safety & handling and avoids problems associated with trace glycol breakdown not removed from glycol protected coils prior to reactivation. These typically include on-site dilution, multiple samplings to assure protection, flushing, filtration, corrosion debris, microbiological fouling and severe odors. Subsequently personnel safety, system damage, inefficient heat exchange, contamination, poor flow rates, displaced tenants and environmental governance are just some of the problems system operators can encounter.

Where past glycol use has led to problems identified above SAFE-KOOL will not perpetuate further attack once basic system chemistry has been corrected.

BENEFITS:

- * Protects coils, chillers or idle HVAC components against ice damage
- * Environmentally friendly
- * Safe, non-toxic, containing only food grade components.
- * Offers freeze protection to minus 70 degrees F, if not diluted.
- * Mildly alkaline cannot acidify water.
- * Excellent corrosion protection of steel and mixed metallurgy systems
- * Provides pH buffering and reserve alkalinity to maintain pH values
- * No flushing required, can be diluted into system water after coil reactivation.
- * May be reclaimed & reused if not diluted
- * Stable, can not decompose to produce corrosive byproducts.
- * Less Handling

APPLICATION:

Proper lay-up requires effective coil isolation from pressurized portions of a recirculating water loop to minimize or eliminate in-leakage of water. Coils must be drained of as much water as possible. Use of high pressure air may be helpful in forcing out additional non-drainable water remaining after simple draining. A drum pump or pump/tank assembly is required along with hose from the pump to the bottom of the coil, and from the top of the coil back to the shipping container or tank. Drain valves are closed and the coil filled totally from bottom to top with undiluted Safe-Kool.

Pumping is continued until solution flows from the top of the coil back to the supply drum or holding tank. Circulation is continued for 15 to 30 minutes to insure full mixing and clearing of as much air as possible from the highest access point of the coil. Recirculation is then stopped, and Safe-Kool is drained or pumped back to its supply drum or appropriate recovery tank for reuse. Drain valves should be reopened to insure no accumulation of water should isolation valves leak. Coil low spots are now protected against freezing.

TYPICAL PROPERTIES:

Appearance	Light Colored Liquid
Odor	None
Density	11.8 lbs./gal.
Flash Point	None
Solubility in Water	Complete
pH	10.7
Flash Point	Not Applicable

PACKAGING:

55 - Gallon Drum	650 lbs. net.
30 - Gallon Drum	355 lbs. net.
15 - Gallon Carboy	175 lbs. net.
5 - Gallon Pail	48 lbs. net.

ADDITIONAL INFORMATION:

To place an order please call:

Corporate Office - Palatine, IL
(847) 358 7400
Wisconsin Office - Milwaukee, WI
(414) 421-2070
Michigan Office - Walled Lake (Detroit Area), MI
(248)-669-6667

To obtain further technical information please visit our homepage at
www.hohchemicals.com