

## Ice Machine Cleaning & Filtration

### DO YOU HAVE THESE ICE MACHINE PROBLEMS?

- LIME SCALE FORMATION
- SEDIMENT
- OBJECTIONABLE TASTES OR ODORS
- SLIME GROWTHS
- ROUGH FREEZING SURFACE
- CLOUDY OR MILKY ICE
- DIRTY COOLING COILS

## Reduce Service Calls On Major Water Problems Encountered In Ice Making Equipment

### Lime Scale Formation

Lime scale is a common problem in ice machines. Scale-forming minerals tend to concentrate in the water and precipitate on the freezing surfaces. The ice tends to stick to the scale and this jams the machine. Years of experience with ice making equipment have proven that the best way to solve this problem and reduce service calls is to prevent this scale formation by treating the water with the food-grade polyphosphate, Micromet®. Before the treatment is started, however, the machine should be cleaned, and possibly sanitized.

## Removing Scale Deposits

### Liquid Ice Machine Cleaner

Liquid Ice Machine Cleaner is a food-grade phosphoric acid that is fast acting yet safe to use. It has been formulated for removing scale deposits from ice machines and coffee urns, and does not give off any harsh fumes or contain chlorine or chlorides that would attack stainless steel. USDA Accepted.

8 fl. oz. (13.2 net wt.) bottle: 4207-47  
1 gallon bottle: 4207-08



### Nickel Safe Ice Machine Cleaner

Nickel-Safe Ice Machine Cleaner is a specially formulated food-grade product for removing scale deposits from ice machines having nickel-plated or tin-plated evaporators. It is acceptable for use in such machines made by Manitowoc and other manufacturers using nickel. It mixes to form a green solution which makes rinsing easier. USDA Accepted.

16 fl. oz. bottle: 4287-34  
1 gallon bottle: 4287-08



## Controlling Slime Growths

### Ice Guard™

The Ice Guard Slime Control System is a revolutionary product using patented technology that controls the growth of slime in commercial ice machines. The media is NSF-listed. The nontoxic product reduces downtime and maintenance costs while improving the taste and appearance of the ice. The system involves easy, one-step installation as well as easy and safe handling and disposal. One Ice Guard cylinder will protect a 1200 lb. ice machine for up to 6 months.

Ice Guard AP: 4209-06  
Mini Ice Guard AP: 4209-05



### IMS-II Sanitizing Concentrate

IMS-II is an EPA-registered sanitizing concentrate formulated exclusively to sanitize hard, non-porous surfaces to eliminate odors and slime growths. No rinsing is required when used as directed. Formulated for general use in ice machines, ice cream dispensing equipment and other hard surface equipment.

16 fl. oz. bottle: 4211-34



# Preventing Scale Deposits

Micromet is a slowly soluble food-grade polyphosphate that keeps scale-forming minerals in solution, preventing the formation of scale on the evaporator or freezing surface. There are two types of Micromet that may be used: Micromet Crystals which dissolve at the rate of about 25% per month and require monthly recharging, or 6R Micromet which dissolves about 3-5% per month and lasts up to 6 months between service calls. Both are NSF-listed and are USDA-accepted.

## Micromet® Crystals

This treatment has been used for more than 50 years to prevent scale formation in commercial and residential water systems. It dissolves at about 25% per month and should be used on larger commercial ice makers. For most waters, the initial charge is 1 ounce of Crystals for every 100 lbs. of ice made per day. Each month 25% of the initial charge should be added to the feeder.

5 lb. container: 4243-97

50 lb. pail: 4243-84



## 6R Micromet®

A food-grade phosphate specifically formulated for inhibiting scale in ice machines and other equipment using low volumes of water. 6R Micromet is available in 50 lb. pails and in self-contained cartridges for use in the NP Series housings and in the Micro-Plus® Treatment Systems. It requires replacement only once every 6 months. Typically the required dosage is 8 ounces for each 450 pounds of ice (50 gallons of water) per day.



50 lb. pail: 4265-84



Tested and Certified by NSF under Standard 61

# Prevents Scale, Removes Sediment & Objectionable Tastes And Odors

## MICRO-PLUS® IN-LINE FILTER *plus* FEEDER

The complete “in-line” treatment program for commercial ice makers, coffee urns and brewers, beverage makers and other water-using equipment such as humidifiers, steamers and residential refrigerator ice makers.

Micro-Plus is available in a variety of sizes, capable of treating capacities of 125 lbs. of ice (12.5 gallons) to 1,000 lbs. of ice (100 gallons) per day. They are designed and manufactured to eliminate or control the three primary water-related problems: lime scale, silt and sediment (down to 20 microns), and objectionable tastes and odors. When properly sized, Micro-Plus will last for six months.

All units are constructed of NSF-approved polypropylene, and are tapped on each end with 1/4” FPT connections for use with flare, compression or the MPQC Quick Connect fittings.

For taste and odor problems only on equipment using up to 50 gallons of water per day, use the Micro-Carbon 4.

### Micro-Plus Bracket

A mounting bracket using high impact plastic construction with FPT connections. Includes braided hose, gauge and all couplers. Allows for quick installation, easy service and will accommodate a single Micro-Plus unit. Brackets designed to hold two or three Micro-Plus units in parallel are also available on special order.

1 Each: 4619-0

### Micro-Plus “Quick Disconnect” Fittings

This is a convenient blister pack consisting of two female “quick-connect” couples and two male plugs... all you need to hook up a Micro-Plus easily and quickly. In addition, the couples incorporate John Guest fittings for easy installation without tools.

MPQC: 4619-22



Tested and Certified by NSF against ANSV NSF Standard 42 for odor and taste reduction, chlorine reduction

Part Number	Micro-Plus	TREATMENT CAPACITIES		
		Water gals/day Capacity	Ice Makers	Coffee Makers
4615-W3	MICRO-PLUS 2	12.5	125 lbs./day	25 lbs. ( 1,250 cups) coffee/wk.
4612-W3	MICRO-PLUS 4	25.0	250 lbs./day	50 lbs. ( 2,500 cups) coffee/wk.
4613-Y8	MICRO-PLUS 8	50.0	500 lbs./day	100 lbs. ( 5,000 cups) coffee/wk.
4614-Y8	MICRO-PLUS 16	100.0	1000 lbs./day	200 lbs. (10,000 cups) coffee/wk.
4617-24	MICRO-CARBON 4	50.0	500 lbs./day	100 lbs. (5000 cups) coffee/wk.

# Prevent Lime Scale, Sediment or Objectionable Tastes and Odors



NP24DD Housing: 4704-24  
NP48DD Housing: 4714-24

## NP Series

The NP Series is a complete, multi-functional treatment system, consisting of two different size housings, the NP24DD and the NP48DD, and a family of “problem-solving” cartridges.

The NP Series has been developed in order to permit the service technician or user to customize their installation to address a specific water-related problem or problems. There are six different cartridges for the control of scale, silt and sediment and for the removal of objectionable tastes and odors. And, the cartridges are available in sizes to fit both NP Housings.

The product line is also augmented by accessory items. Two different bracket assemblies are available to permit the installation in series of two or three NP Housings. By using the bracket assemblies, the installation can be customized to correct two or three water-related problems on larger equipment. Also, a gauge package is available for use where it is necessary to continually monitor the pressure of the water serving the ice machine, beverage machine, etc. This is often a recommended procedure when filtering water with a high level of silt or sediment.



Tested and Certified by NSF International under ANSI/NSF Standard 42 for materials only.

## Select the Appropriate NP Cartridge to Solve Your Particular Problem



### Carbon Block Cartridge

The NP24C Cartridge fits the NP24DD Housing while the NP48C fits the NP48DD. These carbon blocks will remove most objectionable tastes and odors and are rated down to 10 microns.

NP24C: 4701-87  
NP48C: 4711-87



### Sediment Cartridge

The NP24S (5”) and the NP48S (10”) are made from FDA-approved polypropylene construction and filter to 5 microns. In addition, the 10” as well as a 20” version are available in bulk packaging.

NP24S: 4702-87  
NP48S: 4712-87  
20” Bulk: 4621-43



### 6R Micromet® Cartridge

The NP246R Micromet Cartridge contains 1 pound of 6R Micromet, and it fits the NP24DD Housing. The NP486R Cartridge contains 2 pounds of 6R and fits the NP48DD Housing.

NP246R: 4705-87  
NP486R: 4715-87



### Micromet/Carbon Cartridge

A custom cartridge, combining 6R Micromet for scale-control and a carbon block for sediment (10 microns) and taste and odor control.

NP24PC: 4706-87  
NP48PC: 4716-87



### 6R Micromet/Sediment Cartridge

Another custom cartridge within the NP Series, consisting of polypropylene for filtration (5 microns) and phosphate for scale-control.

NP24PS: 4707-87  
NP48PS: 4717-87

See Cartridge Selection Chart on Next Page

# SELECTION CHART FOR NP SERIES

Cartridge Type	Problem to Solve			Daily Capacities	
	Sediment	Taste & Odor	Scale	"24's"	"48's"
"S" Cartridges	✓			1800 lbs. (200 gal.)	3600 lbs. (400 gal.)
"C" Cartridges	✓	✓		1800 lbs. (200 gal.)	3600 lbs. (400 gal.)
"6R" Cartridges	✓		✓	900 lbs. (100 gal.)	1800 lbs. (200 gal.)
"PC" Cartridges	✓	✓	✓	600 lbs. (65 gal.)	1200 lbs. (135 gal.)
"PS" Cartridges	✓		✓	250 lbs. (27 gal.)	550 lbs. (60 gal.)

Select the appropriate housing according to the cartridge to be used. Replace cartridges every six months. For coffee makers, the NP246R will treat urns using up to 200 lbs. of coffee (10,000 5 oz. cups) per week for 6 months for scale control.

## OEM Replacement Products



**CTL Series... the replacement for Manitowoc® Tri-Liminator® Series**  
**Service existing Tri-Liminator installations and set up new installations.**  
**The CTL Series is fully compatible.**

Nu-Calgon has developed the CTL Series filtration system to simulate and be compatible with the Tri-Liminator water filters. The CTL Series contains a matching product for each of the Tri-Liminator models, and the specifications are nearly identical. In addition, the CTL's Primary Cartridge (C0070) will replace both the K00070 and K00174 cartridges, and it has more scale control ability than either Tri-Liminator cartridge. Part numbers are easily crossed over: the CTL05 replaces the Tri-L-05, the CTL10 replaces the Tri-L10, etc.

- Prefilter EC210 4610-20
- Single Cartridge System 4610-21
- Double Cartridge System 4610-23
- Primary Cartridge\*\* 4610-26

\*\*Fits old and new Tri-Liminator systems.

## Other Ice Machine Maintenance Products

### Food-Grade Silicone

Sprays a perfect non-stick surface on ice machine surfaces, vending machines, coin slots, hot plates, slicing machines, and other food processing and packaging equipment. An excellent lubricant that prevents binding and sticking. Contains ingredients approved by the FDA for food contact use. USDA Approved.

10 3/4 oz. aerosol can:  
4084-03



### CalClean®

Does not contain fluorocarbons. A heavy duty detergent formulation of surfactants, grease solvents, alkaline cleaners, corrosion inhibitors and water conditioners. Ideal for cleaning window units as well as small evaporator coils, air cooled condenser coils, metal filters, fan blades and other surfaces soiled with greasy dust and dirt. USDA Approved.

20 oz. aerosol can:  
4081-75



### Nu-Blast® Condenser Coil Cleaner

A "no rinse required" condenser coil cleaner in a convenient aerosol package. Double action of high pressure blast and solvent cleaning restores design efficiency of condenser coils quickly and easily. Pleasant odor, non-flammable and non-conductive. No rinse required, cleaning solvent evaporates completely.

18 oz. aerosol can:  
4290-75

