

## CLEANING DILUTION CHART

All of our cleaners are concentrates and should be diluted with water before use. The chart below is helpful in determining the amount of cleaner to be added to a tank. Note that adding water to the solution too quickly may cause some cleaners to foam. To avoid this, pour the water first, then add the cleaning solution.

U.S. Tank Sizes (concentration of cleaner)				
Tank Size	0.5%	1.0%	2.0%	5.0%
1 Quart	1/6 ounce	1/3 ounce	2/3 ounce	1 1/2 ounces
1 Gallon	2/3 ounce	1 1/4 ounces	2 3/4 ounces	6 1/2 ounces
3 Gallons	2 ounces	3 3/4 ounces	7 1/4 ounces	19 1/4 ounces
5 Gallons	3 1/4 ounces	6 1/2 ounces	12 3/4 ounces	1 quart
10 Gallons	6 1/2 ounces	12 3/4 ounces	25 1/2 ounces	2 quarts
25 Gallons	16 ounces	1 quart	2 quarts	1 1/4 gallons
50 Gallons	1 quart	2 quarts	1 gallon	2 1/2 gallons
100 Gallons	2 quarts	1 gallon	2 gallons	5 gallons

Metric Tank Sizes (concentration of cleaner)				
Tank Size	0.5%	1.0%	2.0%	5.0%
1 Liter	5 ml	10 ml	20 ml	50 ml
4 Liters	20 ml	40 ml	80 ml	200 ml
10 Liters	50 ml	100 ml	200 ml	500 ml
20 Liters	100 ml	200 ml	400 ml	1 liter
40 Liters	200 ml	400 ml	800 ml	2 liters
100 Liters	500 ml	1 liter	2 liters	5 liters
200 Liters	1 liter	2 liters	4 liters	10 liters
400 Liters	2 liters	4 liters	8 liters	20 liters

For information on maintaining the concentration of the solution, contact International Products Corporation at 609-386-8770 or visit the technical documents page of our website at [www.ipcol.com](http://www.ipcol.com).

## Also from International Products Corp:

### P-80® Temporary Rubber Lubricants

P-80 Temporary Rubber Lubricants are unique assembly aids. They are specially formulated to lubricate rubber so it is easy to install, remove or otherwise manipulate.

When wet, P-80 makes rubber slippery and easy to assemble. Once dry, the slipping action goes away and the part remains in place. P-80 products reduce the risk of damage to parts and injuries to workers by reducing the force needed for assembly.

P-80 is widely used in the automotive, appliance, and pump industries. Typical applications include the installation of o-rings, grommets, seals, bushings and hoses. P-80 is available in industrial and incidental food contact formulas.

- P-80 Emulsion Temporary Rubber Lubricant
- P-80 THIX Temporary Rubber Lubricant Gel
- P-80 Grip-it Quick-drying Temporary Rubber Lubricant
- P-80 RediLube Temporary Rubber Lubricant
- P-80 Emulsion IFC Temporary Rubber Lubricant
- P-80 THIX IFC Temporary Rubber Lubricant Gel

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Visit our website at [www.ipcol.com](http://www.ipcol.com) for:

- MSDS
- Free Product Samples
- Technical Documents
- Cleaning Validation Methods
- Global Distribution Contacts



## Aqueous Cleaner

### INSTRUCTION BOOKLET



### MICRO-90®

#### CONCENTRATED CLEANING SOLUTION

### MICRO® GREEN CLEAN

#### CONCENTRATED BIODEGRADABLE CLEANER

### LF2100®

#### LOW-FOAM CLEANER

### MICRO® A07

#### CITRIC ACID CLEANER

### SURFACE-CLEANSE/930®

#### NEUTRAL CLEANER

### ZYMIT®

#### LOW-FOAM ENZYME CLEANER

### ZYMIT® PRO

#### ENZYME CLEANER

PROVIDING SAFE, EFFECTIVE  
 AQUEOUS CLEANERS SINCE 1923

[WWW.IPCOL.COM](http://WWW.IPCOL.COM)

## SAFE, CONCENTRATED CLEANERS

### MICRO-90® CONCENTRATED CLEANING SOLUTION

Cleaning methods include CIP, Manual and Immersion Washing, Mild-Agitation, Ultrasonic. Typical pH (neat) 9.0 to 9.9. Five-year shelf life. A mild yet powerful multi-purpose cleaner that is effective in both industrial and critical cleaning applications. Its unique formulation of chelants, ionic, and non-ionic ingredients produces a variety of cleaning actions that include lifting, dispersing, emulsifying, sequestering, suspending and decomposing. Target soils include oil, grease, wax, tar, flux, particulates, hard water stains and biological debris. Outstanding for cleaning labware, ceramics, stainless steel, and defouling filter membranes.

### MICRO® GREEN CLEAN BIODEGRADABLE CLEANER

Cleaning methods include CIP, Manual and Immersion Washing, Mild-Agitation, Ultrasonic. Typical pH (neat) 9.7. One-year shelf life. A free-rinsing, biodegradable aqueous cleaner designed for use in a wide range of applications. Micro Green Clean is free of CDCs, ODCs, phosphates, silicates, borates, halogenated compounds, and phenols. Target soils include oil, grease and biological debris. Outstanding for cleaning equipment, labware, and filter membranes.

### LF2100® LOW-FOAM CLEANER

Cleaning methods include CIP, Manual and Immersion Washing, High-Agitation, Machine/Pressure Washing, Ultrasonic. Typical pH (neat) 9.0 to 9.9. Five-year shelf life. LF2100 is a powerful, low-foaming blend of chelants, non-ionic, and amphoteric ingredients formulated to remove a wide range of soils from many different surfaces. LF2100 is ideal for tanks with oil skimmers, and works well at room temperature or when heated. Target soils include oil, grease, wax, tar, flux and biological debris.

### MICRO® A07 CITRIC ACID CLEANER

Cleaning methods include CIP, Manual and Immersion Washing, Mild-Agitation, Ultrasonic. Typical pH (neat) 2.0 to 3.0. Two-year shelf life. Micro A07 is a powerful blend of chelating citric acid and anionic surfactants that is designed to remove milkstone, hard water scale, rust, mineral deposits and other inorganic soils from filter membranes, labware and process equipment. Micro A07 is a biodegradable, phosphate free, non-corrosive cleaner.

### SURFACE-CLEANSE/930® NEUTRAL CLEANER

Cleaning methods include CIP, Manual and Immersion Washing, Mild-Agitation, Ultrasonic. Typical pH (2% w/w) 7.0. Five-year shelf life. A gentle cleaner that delivers powerful action usually found only in much harsher products. Surface-Cleanse/930 has a neutral pH, which eliminates surface damage that may be caused by an acid or alkaline cleaner. It is a mixture of nonionic surfactants, and is safe for use on aluminum, zinc, and other delicate metals. The cleaner's low sodium content makes it ideal for use on electronic components and is effective in hard and soft water. Target soils include adhesive, oil, flux and ink.

### ZYMIT® LOW-FOAM ENZYME CLEANER

Cleaning methods include CIP, Manual and Immersion Washing, High-Agitation, Machine/Pressure Washing, Ultrasonic. Typical pH (neat) 6.9 to 8.4. Two-year shelf life. A synergistic dual-enzyme and detergent formula that removes protein- and starch-based soils. Zymit Low-Foam is used to clean diagnostic and surgical instruments, labware, photographic film equipment, hospital and daycare furnishings, and many other surfaces. Target soils include food, grass, blood, fat, sweat, mucous, tissue, feces and sebum.

### ZYMIT® PRO ENZYME CLEANER

Cleaning methods include CIP, Manual and Immersion Washing, Mild-Agitation, Ultrasonic. Typical pH (neat) 6.9 to 8.4. Two-year shelf life. A unique blend of protease enzymes, detergents and builders that work together to achieve broad cleaning powers. The enzymes dissolve the soils, and the detergents wash them away. Zymit Pro is designed to remove protein-based soils, such as gelatin, food debris, and milkstone. It is an effective filter membrane cleaner, especially when used with Micro-90 or Micro A07 in consecutive cleaning steps.

## INSTRUCTIONS FOR USE

Cleaning tasks tend to require individualized procedures that are developed empirically, however the following general points pertain to most applications:

- The cleaners are concentrates and should be diluted with water before use. A basic cleaning solution of 1.0% to 2.0% cleaner in water is recommended.
- The best way to determine your optimum cleaning cycle is to experiment with controllable variables including: the temperature of the solution, dwell time, the type of cleaning action, the concentrations of detergent in the solution and the type of water used. Temperature is the best way to speed up the cleaning action. The maximum suggested operating temperature varies by product.
- A thorough rinsing or flushing step should follow the cleaning. For critical cleaning applications use deionized or distilled water. Rinsing with ordinary water may introduce new contaminants. For food contact surfaces, rinse with potable water.
- While these cleaners are compatible with most materials, it is good practice to test for compatibility before using the cleaner on materials that cannot be replaced.

### ENVIRONMENTAL

All the cleaners are non-toxic and contain no CFC's, silicates, halogens, phenols, or heavy metals (a spectrographic analysis of trace elements is available upon request). All are non-corrosive, non-flammable, and have low VOC values when used at suggested dilutions. They are registered with NSF as category A1 cleaners for use in food processing areas.

### SAFETY

It is advisable to wear chemical-resistant gloves (neoprene, nitrile, vinyl or latex) while using our cleaners. It is also good practice to wear safety glasses when working with any chemical. For more information please refer to the appropriate MSDS.

### DISPOSAL

Unused, these cleaners are not hazardous wastes. However, once contaminated with soils through the cleaning process, it is the responsibility of the user to determine whether the waste is hazardous, and requires special disposal procedures. Please refer to the appropriate MSDS for details.

### EXHAUSTION OF CLEANING STRENGTH

These cleaning solutions are formulated with several different cleaning ingredients, and they will continue to clean until one or more of their ingredients is depleted. Cleaning tasks tend to exhaust different ingredients at different rates, therefore it is difficult to predict how long a solution will perform in a given application. A good rule of thumb is that if the pH of the cleaning solution decreases by one full pH unit, the solution may be weakening and should be changed or replenished.

### RESIDUE

When properly rinsed, these cleaners leave no residue. The simplest way to test for residue is to dip a glass slide into the rinse water and remove it. If the rinse water flows smoothly over the slide, there is no residue. If the water beads or streaks, more rinsing is required. Contact International Products Corporation for quantitative validation test methods or visit the technical documents page of our website at [www.ipcol.com](http://www.ipcol.com).

## RECOMMENDED PRODUCT BY

### CLEANING METHOD:

CIP (Clean In Place), Manual and Immersion Washing, Mild-Agitation Systems, Ultrasonic Baths: All products.

High-Agitation, or Pressure Washing Systems: LF2100, Zymit Low-Foam.

To help choose the right product for your application, the soil and surface cleaned should also be considered. Please call if you need assistance.

## STORAGE & HANDLING

1. Store between 2° — 43° C (32° — 110° F) in a cool, dry, well-ventilated area. Protect containers from sunlight and keep closed when not in use. Use only stainless steel, polyethylene, or plastic-lined containers for storage. Do not store Micro-90 or LF2100 in contact with aluminum, zinc, copper or their alloys.
2. Dilute before use. Typically a 1.0%—2.0% solution will be effective. Please refer to the "Cleaning Dilution Chart" on the back of this booklet.
3. For proper inventory control, it is best to use the oldest product first. Each container has a lot number that gives the date (yymmdd) that the material was produced. This will prevent using new material when older stock is available.
4. Compatible with most metals, plastics and other hard surfaces; however, users are encouraged to ensure their parts are compatible with these cleaners before they are put into production. Compatibility studies for common metals and plastics are available from the manufacturer.
5. Cleaning action may be improved by increasing temperature, dwell time, concentration and by using ultrasonics or agitation.
6. **DO NOT MIX CLEANERS WITH OTHER PRODUCTS.**
7. For safety details, please refer to the appropriate Materials Safety Data Sheet (MSDS) which can be downloaded from our website: [www.ipcol.com](http://www.ipcol.com), or requested by calling 609-386-8770.

## CONTACT US FOR FREE SAMPLES

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