

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 cleaner.

U.S. Tank Sizes <i>(concentration of cleaner)</i>				
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 3/4 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 1/2 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 <i>(concentration of cleaner)</i>				
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

Contact us for information on maintaining the concentration of the solution. Some industries use less than our recommended amounts.



MADE IN THE USA

CLEANING APPLICATIONS

Cleaners are designed for a wide range of applications. They can be used to remove oil, grease, resin, tar, wax, biological material, insoluble oxides, fine particles, and many other soils. Excellent at cleaning metal, glass, ceramic, plastic, gemstone, and other surfaces. In addition, they are effective on cleaning many types of filter membranes.

Over the years, we've interviewed hundreds of people who use our products. Below is a list of their cleaning applications you may find useful.

Use to remove:

Acrylic Latex Paint	Lipids and Proteins
Blood	Metal Oxides
Carbon Buildup	Nutrient Media Residues
Dirt	Oils and Grease
Dyes	Organic Stains and Residues
Films left by rinsing agents	Pharmaceutical Serums
Fingerprints	Radioactive Material
Fish Residues	Resins, Asphalt and Tars
Inks	Silicon Grease
Lapping Compounds	Starches and Carbohydrates

Use to clean:

Ball Bearings	Labware
Beakers	Laser Parts
Biological Slides	Liquid Crystal Faces
BOD Bottles	Magnets
Bulbs	Medical Devices
Camera Lenses	Membranes
Ceramic Parts to be Plated	Metal Parts
Ceramic Substrates and Chips	Mirrors
Chromatograph Collectors	Nuclear Fuel Rods
Coins	Nylon Screens
Copper, Brass, Bronze fittings	Petri Dishes
Cylinders	Pharmaceutical Equipment
Dryers	Photoplates
Electron Tubes	Pipettes
Eyeglass Lenses	Plastics and Ceramics
Ferrite Parts	Pumps
Fiberglass Boats	Sewerage Collection Bottles
Filters	Shock Absorbers
Finishing Parts	Solar Panels
Firearms	Stainless & Cold Rolled Steel
Flasks	Syringes
Food & Beverage Equipment	Tanks and Vats
Glass	Test Tubes
Gun Barrels	Textiles
Homogenizers	Ultra Centrifuges
Ink Jet Printer Heads	Wafers for Semiconductors
Instrument Lenses	Water Recycling Equipment
Jewelry	



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

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SAFE, CONCENTRATED CLEANERS

MICRO-90® CONCENTRATED CLEANING SOLUTION

Typical pH (neat) 9.8. A mild, yet powerful, multi-purpose cleaner that is effective in both industrial and critical cleaning applications. Its unique formulation of chelants, ionic, and nonionic ingredients produce a variety of cleaning actions that lift, disperse, emulsify, sequester, suspend, and decompose soils. 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

Typical pH (neat) 9.8. 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

Typical pH (neat) 9.8. 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

Typical pH (neat) 3.0. Micro A07 is a powerful blend of 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

Typical pH (neat) 7. 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. Ideally suited for room temperature cleaning, and is effective in hard and soft water. Target soils include adhesive, oil, flux, and ink.

ZYMIT® LOW-FOAM ENZYME CLEANER

Typical pH (neat) 7.5. 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

Typical pH (neat) 7.5. A biodegradable formula with a unique blend of protease enzymes, detergents, and builders that work together to achieve broad cleaning powers. The enzymes break up 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. To prepare a 2% cleaning solution, mix 20 mL of cleaner per liter of water (2.5 oz. per gallon).
- 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 cleaners are non-toxic and do not contain solvents, phosphates, 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 all registered with the NSF as USDA 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 SDS.

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 SDS 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 changes 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.

RECOMMENDED PRODUCT BY

CLEANING METHOD:

CIP (Clean In Place), COP (Clean Out of 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 (36° – 109° F) in a cool, dry, well-ventilated area, except for Zymit LF & Zymit Pro, which should be stored at 2° – 25° C (36° – 78° F). 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 (yyymmdd) 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 CHEMICALS.**
7. For safety details, please refer to the appropriate Safety Data Sheet (SDS) which can be downloaded from our website: ColeParmer.com.

DISTRIBUTED BY

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