

SPECIAL PRODUCTS TO MEET YOUR FILTER MEMBRANE CLEANING NEEDS



Nonfood Compounds Program Listed A1

COMPATIBLE WITH UF, RO AND NF SYSTEMS

Today's complex cleaning tasks make it difficult to find a consistently effective filter membrane cleaner. International Products Corporation offers a full line of products specially formulated to meet a wide variety of requirements.

The following products are aqueous concentrates sold in a variety of sizes. Each can deliver the critical/precision cleaning needed to meet the most rigorous specifications for cleanliness. They are all free of CFCs, ODCs, phosphates, silicates, borates, halogenated compounds, and phenols.



MATCH SOIL TO CLEANER—SOILS IN MAJOR INDUSTRIES

INDUSTRY	PRIMARY FOULANT	SECONDARY FOULANT	CLEANER(S) TYPE	IPC CLEANERS
Municipal Wastewater	Oils Greases	Metals	Alkaline	Micro-90 Micro Green Clean
Metalworking (Industrial Wastewater)	Oils Greases	Metals	Alkaline Acid	Micro-90 Micro Green Clean Micro A07
Pharmaceuticals	Proteins Oils	Oils Proteins	Enzyme Alkaline	Zymit Pro, Micro-90 Micro Green Clean
Dairy	Milkstone	Proteins	Acid Enzyme	Micro A07 Zymit Pro
Food	Oils Proteins	Proteins Oil	Alkaline Enzyme	Micro-90 Micro Green Clean Zymit Pro

Benefits

- NSF-registered USDA A1 cleaners
- "Green" chemistry - low VOCs, no phosphates, non-corrosive, no CFCs
- Fast, effective soil removal
- Economical concentrated liquid formulas for easy dilution
- On-site research laboratory support and technical assistance available

Put our products to the test. Request a FREE sample!

online: WWW.IPCOL.COM telephone: 609-386-8770 email: MKT@IPCOL.COM
International Products Corporation an ISO-Certified Company



International Products CORPORATION

Providing the Highest-Quality Laboratory and Industrial Cleaners Since 1923

HERE IS YOUR FREE CHANCE TO TEST OUR CLEANERS IN YOUR FILTER CLEANING APPLICATION!

International Products Corporation manufactures a complete line of cleaning solutions for use in manufacturing, food processing, laboratory, pharmaceutical and medical device applications. In addition, the environmental departments use them to defoul large filter membranes.

Whether you need to remove grease, oil, ink, flux, starch, or protein, our cleaners will do the job without harming the surface or posing a threat to workers. Use them on machinery, ceramic, metals, precision parts, labware and delicate filter membranes.

Seeing is believing...

Try a free sample of our cleaners in your most challenging application and see for yourself how well our products perform. Simply fill out the request form below and return it to us via fax or mail.

CONTACT US TODAY FOR A FREE SAMPLE



phone
609-386-8770



email
sample@ipcol.com



fax
609-386-8438



online
www.ipcol.com

Or Mail to: International Products Corporation • 201 Connecticut Drive • Burlington, New Jersey 08016-4105

FAX THIS FORM FOR A FREE SAMPLE – 609-386-8438

Please send me a sample of (select from below):

Send my no-obligation sample and MSDS to:

<input type="checkbox"/>	MICRO-90[®] Concentrated Cleaning Solution pH ~9.8 A unique formulation of chelants, ionic, and non-ionic ingredients that produce cleaning actions that include lifting, dispersing, emulsifying, sequestering, suspending and decomposing. Removes oil, grease, wax, tar, flux, particulates, hard water stains and biological debris.
<input type="checkbox"/>	MICRO[®] Green Clean Biodegradable Cleaner pH 9.8 A biodegradable cleaner outstanding for removing oil, grease and biological debris from filter membranes, labware, and equipment.
<input type="checkbox"/>	MICRO[®] A07 Citric Acid Cleaner pH 3.0 A powerful blend of chelating citric acid and anionic surfactants designed to remove milkstone, hard water scale, rust, mineral deposits and other inorganic soils from filter membranes, labware and process equipment. Micro A07 is biodegradable.
<input type="checkbox"/>	Zymit[®] Pro Enzyme Cleaner pH 7.5 A unique blend of protease enzymes, detergents and builders that work together to dissolve soils and wash them away. Target soils include 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.

Name _____

Title _____

Company _____

Address _____

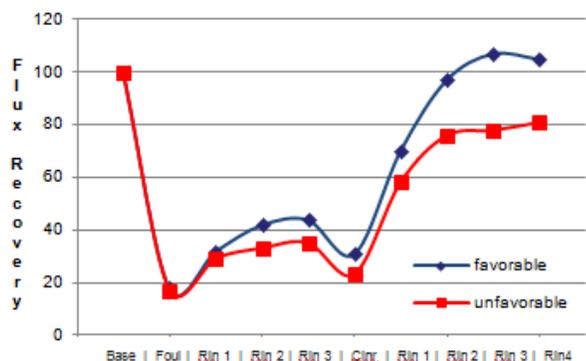
City / State / Zip _____

Phone _____

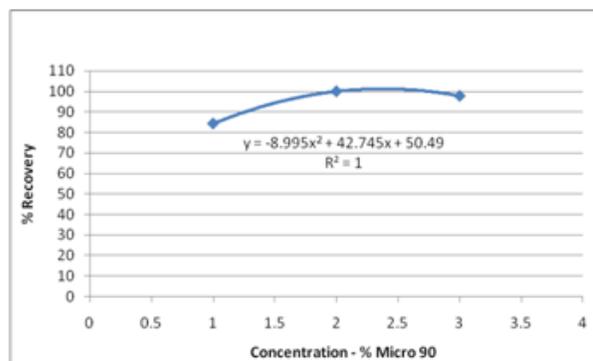
Email _____

Providing the Highest-Quality Laboratory and Industrial Cleaners Since 1923

Favorable vs. Unfavorable Cleaning Profile



Optimal Effect of M-90 on Flux Recovery



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. They are registered with NSF as category A1 cleaners for use in food processing areas.

SAFETY

Although our cleaners are non-toxic, it is advisable to wear chemical-resistant gloves (neoprene, nitrile, vinyl or latex). It is also good practice to wear safety glasses when working with any chemical. Do not mix cleaners with other products. For more information and safety details, please refer to the appropriate Materials Safety Data Sheet (MSDS) which can be downloaded from our website: www.ipcol.com, or requested by calling 609-386-8770.

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. 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.



Providing the Highest-Quality Laboratory and Industrial Cleaners Since 1923

FILTER MEMBRANE CLEANING Q&A

- 1. You don't discuss the use of phosphate cleaners, but they work great in our system. Any comments?**
Phosphate-based cleaners have many benefits. They are proven to be excellent detergents, they chelate, prevent scale formation, and provide protection from corrosion by forming a barrier coating over metals. Their main drawback is their effect on the environment. When released to ground water, phosphates cause eutrophication. This is when excessive nutrients enter water and cause rapid plant growth, like algae. The algae depletes all of the oxygen in the water so nothing else can live in it. In some areas, phosphates are either banned or limited in concentration, particularly in Europe. Some companies voluntarily prohibit their use.
- 2. We have always cleaned first with an alkaline cleaner followed with an acid cleaner. Do you think it's worth reversing them as a test?**
This is worth a lab test using the specific soil or foulant that is common to your system. The benefit of first using an alkaline cleaner is that it causes certain membrane polymers to swell slightly. If your foulant is an emulsion with a high oil content, first adding an acid could split the emulsion. The oil portion floats to the surface. That oil could further foul the membrane. Some accounts use this oil-split technique as a pretreatment process. So in this case, a test would be prudent before a plant trial.
- 3. Is a conductivity test enough to check permeate quality?**
It could be, if you know that heavy metals are not part of the foulant there should be no problem. Conductivity correlates to the overall ion concentration, not specific ions.
- 4. Can I substitute a cleaner with a disinfectant to remove biofilms?**
I suggest you use MICRO-90[®] first, followed by a disinfectant step. The MICRO-90[®] will begin to penetrate the biofilm making the foulant less dense and somewhat water soluble. After a rinse, you can use a disinfectant step which should then be able to better penetrate the biofilm and kill the bacteria.
- 5. We are working with very high chloride levels, and are using ceramic membranes in that application. We have experienced severe fouling issues. What recommendations do you have?**
First, I would try just MICRO[®] A07. The citric acid should remove the scale over time. As a second trial, you could try MICRO-90[®], followed by MICRO[®] A07. This extremely hard water may need both a chelant (Micro-90[®]) and an acid (Micro[®] A07) in series for optimum performance.

CONTACT US FOR A FREE SAMPLE AT WWW.IPCOL.COM OR MKT@IPCOL.COM

View our free 30-minute Filter Membrane Cleaning Webinar online at www.ipcol.com/webseries.htm

CONTACTS

For Sales and Service in the U.S.
International Products Corporation
An ISO-Certified Company
201 Connecticut Drive, Burlington, New Jersey 08016-4105
P. 609-386-8770 F. 609-386-8438
Email: mkt@ipcol.com

For Sales in Europe
International Products Corporation
Unit 5, Green Lane Business Park, 238 Green Lane
London SE9 3TL U.K.
P. 020-8857-5678 F. 020-8857-1313
Email: saleseurope@ipcol.com