Laboratory

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Solution

High Purity Solvent Delivery Systems

As the demand for ever higher purity solvents continues to increase, often the most limiting factor in obtaining high purity is the container that the solvent comes in. In addition to supplying high purity solvents in bottles, MG Scientific has put in place and perfected an alternative-returnable pressure dispense containers. Some of the important factors to consider when evaluating the choice between bottles and returnable pressure dispense containers are: employee safety; maintaining product purity; packaging and disposal costs; storage space and compliance with government regulations.

SSPDS from Burdick & Jackson

The SSPDS is intended to handle large volumes of high purity solvents. The SSPDS from Burdick & Jackson is manufactured with 304 or 316 stainless steel and comes in 56L and 200L containers. The containers are completely reusable, generate no packaging waste, and meet OSHA standards for handling solvents. The containers dispense from a fully sealed, break-resistant system that reduces employee exposure and increases the shelf-life for contained solvents. One 200L SSPDS container eliminates 50 4L bottles, 13 boxes, and 13 Styrofoam inserts.

CYCLE-TAINER from Mallinckrodt Baker

JT Baker's CYCLE-TAINER system handles both large and small volumes. This delivery system is 100% reusable and returnable, closed, completely integrated, and comes in a variety of sizes. The containers are made of 304/316 stainless steel to dispense high-purity and reagent grade solvents. Two color coded, keyed Quick-Connects increase safety by preventing improper hook-ups; they automatically shut off solvent flow when disconnected. Other features include a pressure relief valve, pressure disc, and two secondary manual shut-off valves. Scale-up is also easy with many solvents available in 4, 18, 52, 215, and 1250 liter size containers.

The NOWPAK from Mallinckrodt Baker and Burdick & Jackson

Manufactured by both B&J and Mallinckrodt Baker, the NOWPAK is available in two different styles and is used for large quantities of solvent. When an order is processed, the high purity solvent is placed in an inert, specially cleaned liner inside rigid HDPE (NOWPAK) or 304 stainless steel overpack (NOWPAK II). The HDPE NOWPAK requires continuous pressurization of less than 10 psig and solvent is released through either an HPLC pump or a bottletop dispenser. The steel NOWPAK II requires a continuous pressure of less than 15 psig and can be used to connect directly to DNA and peptide synthesizers. With the NOWPAK system, your lab instruments can run 5 times longer without having to change solvent reservoirs. Once you're finished with the container, no need to triple-rinse, as long as you are using MG Scientific's NOWPAK container return program.

Call MG Scientific for a free evaluation of your facilities needs—our representatives will walk you through an approved rating system and cost analysis on bottles vs. returnable pressure dispense containers and present you with the results. Together we can determine which system is best for you.

Page 2 Eagle Picher Containers

Nhat's

Inside

invenTRAK

Page 3 BAKERBOND[™] Speedisk[®] Extraction Disks

Laboratory Tip

Did You Know?

Page 4 www.mgscientific.com Summer 2001

Eagle Picher Containers

MG Scientific is proud to be partnering with Eagle Picher to provide you with a wide variety of precleaned glassware and plasticware that meet the most stringent requirements. All products satisfy specifications in the current version of

"Specifications and Guidance for Contaminant-Free Sample Containers" published by the U.S. Environmental Protection Agency. Eagle Picher products are used by a wide variety of industries, such as environmental, pharmaceutical, biotech, and semiconductor, all of which depend on Eagle Picher for meticulous adherence to cleaning standards.

Cleaning Procedures

Eagle Picher processes glassware and plasticware according to one of four cleaning procedures. Each procedure guarantees that containers are certified to meet or exceed designated EPA standards. The glassware and plasticware are then prepared for shipment in one of three ways—to meet EPA quality assurance treatment, ready for your lab's cleaning procedures, or meeting custom specifications.

Glassware Line

Eagle Picher manufactures a wide variety of glassware in both amber and clear choices. Shapes include Boston rounds, French squares, jugs, wide mouth jars, and many types of vials. Each shape is available in several sizes.



Selected sizes are available with Second Skin[®] safety coating, which safely contains the contents of the bottle long enough for proper disposal in the event of breakage.

Plasticware Line

Eagle Picher also makes several container styles in durable HDPE (high density polyethylene) or Nalgene[™] plastics. These heavy-duty plastics are recommended when using cyanide, fluoride and metals. The three styles of Nalgene[™] bottles available have a patented seal and are guaranteed leak proof for life. LDPE (low density polyethylene) Cubitainers[™] are collapsible in 1 quart to 5 gallon sizes.

And More

Many different bottle accessories are also available, including various closures, chemical preservatives, labels, and seals.

We are eager to provide all your clean process sample containers through our alliance with Eagle Picher. Call or visit our website for details on any containers you need.



Most managers understand the value of a well run storeroom but . . . storeroom projects often fail or never even start because they are too cumbersome to manage. Stock levels are not maintained, inventory is not clearly labeled and organized, and chemicals may not be stored according to regulations. MG Scientific has developed a program called invenTRAK which is designed to simplify the process and keep your storeroom on track.

How does it work? Assessment

First, an MG Scientific representative meets with you to establish what products and quantities you need on hand. We'll determine your optimal delivery frequency, note shelf life of products and Tier II requirements, solve access difficulties, assess site suitability, and provide estimated cost savings for labor and materials.

Rollout

We'll identify any site improvements needed for hazardous material storage and inspect shelving and venting. Then, we'll develop blanket purchase orders after agreeing on stored items and establishing internal controls. Using our invenTRAK form, we'll take inventory, place the initial order and set up proper reserve inventory levels and stock requests.

Maintenance

We'll replace items on a regular delivery schedule. An initial review after 30 days will quantify cost savings and identify revisions.

We'll provide usage reports and adjust stocked items and on hand quantities periodically.

We can either conduct physical inventories or we can set up a bar system to receive and remove items from inventory. With the bar code system, information is transmitted to MG Scientific on a regular basis, and we replenish your inventory automatically.

Why invenTRAK?

Saves time - Lab personnel will no longer need to spend time tracking inventory.

Saves money - Eliminate ghost inventories in individual labs. Keep on hand only what you need. Don't waste money on products that just sit on shelves and may even have expired usage dates. *Promotes safety* - Reduce the amount of hazardous materials on hand and make sure these materials are stored properly. *Reduces waste* - Eliminate packaging waste. We will store individual items on shelves and recycle waste for you.

Call today for your free invenTRAK analysis

EPA Approved

BAKERBOND[™] Speedisk[®] Extraction Disks

When it's important to save time in water sample preparation, reach for the BAKERBOND[™] Speedisk[®] family of laminar extraction disks. They are superior to liquid-liquid extraction, extraction membranes and other solid phase alternatives, allowing easier, faster, and more economical testing of all water sample types.

BAKERBOND[™] Speedisk[®] Oil & Grease Extraction Disk

The SSpeedisk® Oil & Grease extraction disk comes pre-assembled and ready to use. It is a 50 mm extraction disk, recommended for use with slightly polar to non-polar hydrocarbons. It is the correct choice for samples anywhere from 200 ml to 2L, when analyzing dirty aqueous samples containing the oil and grease family of analytes, such as those addressed by EPA method 1664, Rev.A.

Its laminar configuration gives filtration capacity and inlet characteristics that maximize access of analyte molecules to the microparticulate sorbent. Even when samples contain solids, the *Speedisk*[®] Oil & Grease disk resists clogging and exhibits high throughput rates.

The unique design of the *Speedisk®*'s Oil & Grease disk provides high capacity, recovery, and precision. The disks are ready to attach to J.T. Baker extraction stations. Inexpensive adapters are available to use with other extraction station brands, too.

Variety of Uses

The BAKERBOND[™] Speedisk[®] family of laminar extraction disks includes a variety of uses. Here is a sampling of what's available in addition to the BAKERBOND[™] Speedisk[®] Oil and Grease Extraction disk: BAKERBOND[™] Speedisk[®] C18 for use in EPA Methods 500 Series, 608, SW846/3535 and with slightly polar to non-polar industrial samples BAKERBOND[™] Speedisk[®] C18 XF for dirty samples, EPA Methods 608, 846, and slightly polar to non-polar industrial samples BAKERBOND[™] Speedisk[®] C8 for diquat, paraquat, EPA Method 549.1 BAKERBOND[™] Speedisk[®] SAX for EPA Method 552.1, haloacetic acids and Dalapon BAKERBOND[™] Speedisk[®] DVB for chlorinated acids, EPA Method 515.2 BAKERBOND[™] Speedisk[®] Polar Plus* C18 for extraction of slightly polar to moderately polar compounds such as sulfonylureas, phenols, chlorophenoxy acids and urones.

Choose BAKERBOND[™] Speedisk[®] extraction disks for manual or automated extraction stations.

Laboratory Tip

Barnstead Diamond Series

For the purest water in the tightest laboratory spaces, MG offers the NANOpure[®] DIamond[™] Reagent Grade Water system from Barnstead, the company that's been providing water purification systems

since 1878.

This system features a cartridge pack that uses semiconductor-grade ion-exchange resins for fast rinse and no leaching of impurities. The



system's ultrafilter ensures removal of pyrogens and produces water with less than 0.001 Eu/ml, exceeding all standards. Its compact design lets you mount it on a bench or wall.



Mini-Uniprep[™] Saves Time

With the Whatman Mini-Uniprep[™] you can prep HPLC samples **three times faster**! The Mini-Uniprep[™]

> syringeless filter is a filtration device, pre-assembled, to remove particulates from samples of 0.5ml or less. **First**, place the unfiltered sample in the chamber. **Second**, press the filter plunger through the chamber. Positive pressure forces the filtrate into the reservoir of the plunger. Air escapes through the vent hole until the locking ring engages, forming a water-tight seal. You

can use the device manually or with the new multi compressor that processes up to six samples at the same time. **Third**, the Mini-Uniprep[™] fits into an auto-sampler or the sample can be drawn off for manual injection by piercing the septum with a needle.

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The Latest MSDS



Log on to MG Scientific's web **MSL** site for the most up to the minute version of any MSDS you may need. Our MSDS's are linked directly to each manufacturer to insure that we are providing you the latest version of the MSDS available.

Other sites may store MSDS's in text files and update them only occasionally. On these sites, it is possible that you may not be viewing the most recent version of the MSDS. Only when the MSDS is provided by the manufacturer can you be sure it is the latest version. Make a habit of logging onto www.mgscientific.com for your MSDS needs.

On-Line Certificates of Analysis

We are in the process of adding a link for

Certificates of Analysis for every chemical on our web site. Look for these links throughout our site.

On-Line Receiving

When you order on-line, you can also log receipt of your shipment on-line. Enter how many of each item was received, who received each item and on what date the item was received. Once you've entered the information, print out and/or email a receiving report to send directly to your payables department or keep the report for your own records.

Full Specifications on Chemicals

Formula weights, CAS Numbers, Lot Analysis, Chemical Grades and Safety Ratings - MG Scientific provides everything you need to determine the correct chemical for your application.

