



## **The Versatile AtmosBag™** *Inflatable Polyethylene Isolation Chamber*

AtmosBag is a flexible, inflatable polyethylene chamber with built-in gloves, that lets you work in a totally isolated and controlled environment.

We asked customers to tell us how they use AtmosBag in their laboratories. Here is a list of some of the many responses we received. If you have other applications for AtmosBag to share with Labware Notes readers, please contact us with your suggestions.

### **Anaerobic Chamber**

A continuous purge of dry inert gas prevents any traces of moisture or oxygen diffusion into AtmosBag.

### **Botany and Life Science**

Create a controlled environment for growing plants or seedlings, anesthesia studies, insect and pesticide studies, or use as an incubator for fetal studies and animal research.

### **Desiccating and Constant-humidity Chambers**

Use as a low-humidity desiccator for storing glassware, reagents, or bulky items by inflating Zipper-lock AtmosBag with dry nitrogen and placing a container of desiccant inside to absorb traces of moisture that may diffuse into the bag. For high-humidity chambers, place a saturated solution of salt and water inside AtmosBag. To work with different relative humidities, use a constant purge technique with T-connectors to blend dry nitrogen gas with moisturized nitrogen gas (via water bubbler) into AtmosBag.

### **Dust-free Environments**

Inflate AtmosBag with filtered air or inert gas to perform delicate operations typical in the electronics and aerospace industries.

### **Emergency Isolation**

AtmosBag assists in preventing the gross contamination of an environment when inspecting unknown or suspicious materials and for the temporary containment of leaking or odoriferous containers. Workers can quickly enclose, isolate, and seal a work area using AtmosBag.

### **Manipulation of Air and Moisture-sensitive Materials**

Operations such as material transfer and packaging, sampling, weighing, and even reactions can be conducted inside of



AtmosBag under a blanket of dry inert gas such as nitrogen, argon, or helium to prevent decomposition.

### **Microscopy**

Place a microscope inside AtmosBag and cut a port to accommodate the eyepiece, then seal with tape prior to purging.

### **Sample Preparation in the Lab**

Place grinding equipment such as mixers, blenders, mortars and pestles inside AtmosBag. This protects samples from the atmosphere during preparation and contains dusts and powdered materials, preventing them from infiltrating the laboratory.

### **Weighing Operations**

Analytical and top-loading balances may be placed inside AtmosBag for weighing air- and moisture-sensitive materials and odoriferous materials. AtmosBag permits weighing operations inside a fume hood. Air currents that would interfere with weighing are eliminated inside of AtmosBag.

For additional information about AtmosBag visit our Web site at [sigma-aldrich.com/atmosbag](http://sigma-aldrich.com/atmosbag).

## Paula's Pointers

Static in plastic glove bags can be a problem in many applications. The anti-static ionizer from Plas-Labs™ is an effective way to eliminate all static charges within 36 inches (90cm) of unit. Developed for use in glove boxes, the ionizer may also be used in glove bags. Snip-off AtmosBag gas ports to provide access for the power cable of the ionizer. Ionizer features include:

### Unit features include:

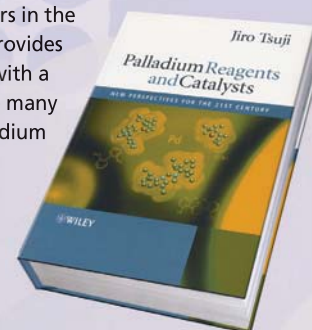
- Ion pulse rate adjustment from 1 to 5 pulses/second
- Ion balance adjustment
- Compact footprint



- Virtually maintenance free
  - CE and UL approved
- Z563064 AC input 120 V  
 Z563072 AC input 240 V, UK plug  
 Z563323 AC input 240 V, Euro plug

## Further Reading

Jiro Tsuji, one of the pioneers in the field of organic synthesis, provides synthetic organic chemists with a remarkable overview of the many applications of organopalladium chemistry. In *Palladium Reagents and Catalysts: New Perspectives for the 21st Century*, he discusses the recent developments in the field as well as the explosive growth over the last five years.



Z706027 Palladium Reagents and Catalysts: New Perspectives for the 21st Century

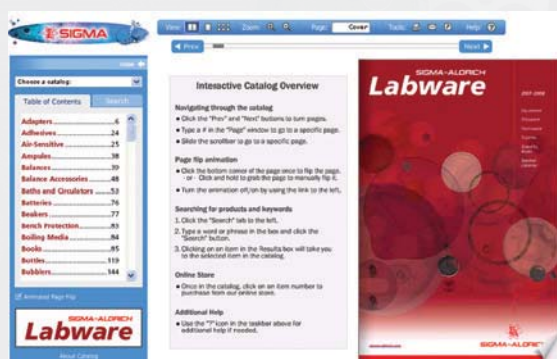
## Latest News

### The NEW Interactive Online Labware Catalog

The Labware Catalog is now virtual. With the look and feel of our print catalog, you have the ability to browse and flip through the pages, jump to a specific chapter, print or email specific pages, or do powerful keyword searches on product names, catalog numbers, brands, and more!

The interactive features allow you to view the catalog in multiple ways, and zoom in and out for a close-up look at the pictures. You may also attach your own personal notes to the catalog pages, so that you can keep track of products you find of interest. To check prices and availability or to place an order, just click on the product numbers.

Visit our Online Labware Catalog now at [sigma-aldrich.com/labwarecatalog](http://sigma-aldrich.com/labwarecatalog).



## Labware Listens

### Suba-Seal® Saved

Faced with closure of the Suba-Seal factory and liquidation of the manufacturing company, we recognized the popularity and high regard for Suba-Seal turn-over closures used by air-sensitive chemists. Production equipment and people moved to another factory, and manufacturing of Suba-Seal continues under our direction, using the same rubber formulation, molds, plant and skills that have made these best quality closures for many years. We listened to your need and saved the product range from extinction. If you have used Suba-Seal closures in the past, you can obtain them exclusively from Sigma-Aldrich and use again in the future.

For more information about Suba-Seal visit our Web site at [sigma-aldrich.com/subaseal](http://sigma-aldrich.com/subaseal).



		8					
3	2		6				4
					5		6
	5		3	2	1		
	4	1	5				
	9				6		8
					8	9	
4			1			6	3
1	6		9	4	3	2	

## Down Time

Sudoku was published by Nicoli in 1986. The name Sudoku is an abbreviation of the Japanese phrase "suji wa dokushin ni kagiru," meaning "digits must occur only once." Fill in all squares in the grid so that each row, each column and each of the 3x3 squares contain all digits from 1 to 9.

Answers can be found at [sigma-aldrich.com/labwarenotes](http://sigma-aldrich.com/labwarenotes).

## Labware Links

For more information on the products featured in this newsletter, protocols and many useful Labware Web links, please visit [sigma-aldrich.com/labwarenotes](http://sigma-aldrich.com/labwarenotes).

©2007 Sigma-Aldrich Co. All rights reserved.  
 SIGMA, SAFC, SIGMA-ALDRICH, ISOTEC, ALDRICH, FLUKA, and SUPELCO are trademarks belonging to Sigma-Aldrich Co. and its affiliate Sigma-Aldrich Biotechnology, L.P.  
 Riedel-de Haën® trademark under license from Riedel-de Haën GmbH. Suba-Seal is a registered trademark of Sigma-Aldrich Biotechnology LP. Plas-Labs is a registered trademark of Plas-Labs, Inc. Sigma brand products are sold through Sigma-Aldrich, Inc. Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.

