

## The Aldrich Sure/Seal™

bulletin describing the Sure/Seal™ system for handling air-sensitive reagents

The polypropylene cap on a Sure/Seal bottle can be safely resealed because the crown cap and liner are already crimped in place. The reagent can then be dispensed using a syringe or double-tipped needle inserted through the hole in the metal cap (**Fig. 1**). We recommend only stainless-needle gauges (no larger than 18-gauge) be used and the polypropylene cap be replaced after each use. After the needle has been withdrawn from the bottle, the new elastomer liner provides outstanding resealing properties to protect the contents within from moisture and oxygen in the atmosphere.

Most of the techniques described in this bulletin were developed for handling various organoborane reagents. However, these methods are applicable to other air-sensitive reagents and reagents on a preparative laboratory scale.

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## Residue Cleanup

Clean-up of equipment that has been used to transfer air-sensitive reagents must not be taken lightly. Since many of these reagents react violently with water, fires are a potential hazard.

**For Sure/Seal bottles:** Remove the crown cap and liner of an empty Sure/Seal bottle should be carefully removed and the open bottle left in the hood to allow the last traces of reactive reagent to be slowly air-dried and oxidized. After at least a day, the inorganic residue can be rinsed out with water. Empty storage bottles and storage vials should be treated similarly. Air-drying in a hood is appropriate only for the last traces of material that remain after a Sure/Seal bottle has been emptied as completely as possible via syringe or double-ended needle transfer. The Aldrich Catalog/Handbook or material safety data sheets should be consulted for

## Lab ware - an line - en itje ent an ea ent

A wide range of Lab ware products are available from Sigma-Aldrich for performing the techniques referenced in this technical bulletin. A sampling of these products are listed below. For additional products and ordering information, see the Sigma-Aldrich Lab ware Catalog or visit our website at [sigma-aldrich.com/lab-ware](http://sigma-aldrich.com/lab-ware).

### B BBL

For safe pressure equalization during material transfers or reactions.

#### In-line bubbler

Use with oil or mercury, 5-7 L. For monitoring gas evolution rate or rate of flow, or for closing off a reaction vessel from the atmosphere.

**Cat. No. Z101214**

### TT A L

For transferring air-sensitive solvents and reagents.

#### Micro-Mate hypodermic syringes



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