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AL-195

TechnicalBulletin

The Oxford/Sure-Seal™ Valve Cap

This adapter (Catalog number **Z40,626-0**) is designed for convenient and safe handling of air- and moisture-sensitive materials (e.g., organolithium and Grignard solutions) that are packaged in Aldrich Sure/Seal‰ bottles. The valve cap, when equipped with a septum on the top and a nitrogen bleed on the side arm, enables a scientist to conveniently remove desired amounts of liquid. Repeated use of the same Sure/Seal liner, when used in conjunction with the Oxford Sure/Seal Valve Cap, provides a longer shelf life for Aldrich's air- and moisture-sensitive products.

A step-by-step procedure for the use of the Oxford Sure/Seal Valve-cap is presented below.
NOTE: Read Technical Bulletin AL-134, Handling Air-Sensitive Reagents, to become completely familiar with syringe techniques.

Diagram 1.
The Sure/Seal Bottle System

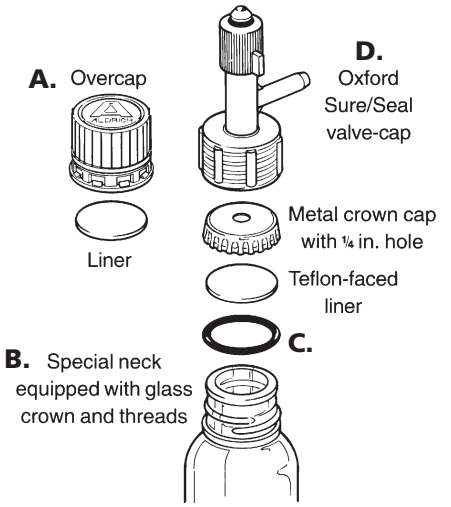
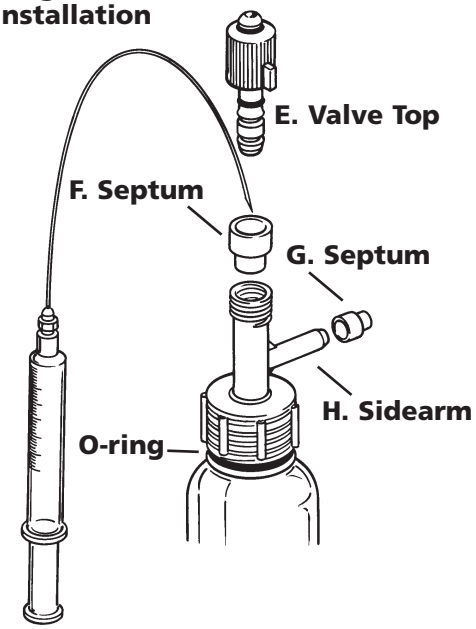


Diagram 1.
1. Remove the plastic overcap, **A**, from the Sure/Seal bottle, **B**.
2. Slip O-ring, **C** (supplied with the Oxford valve), firmly over the metal crown cap until it sits on top of the glass lip of the Sure/Seal bottle.
3. Securely screw the Oxford Sure/Seal Valve Cap, **D**, on top of the bottle, **B**, until it sits tightly against O-ring.

Diagram 2.
Installation



Note: O-ring sits firmly on top of the glass lip.

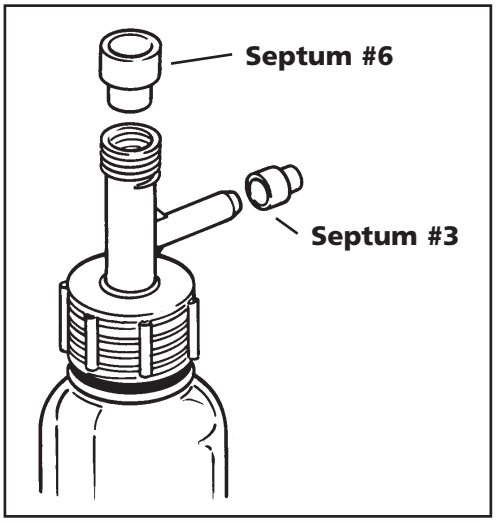
Diagram 2.
4. Remove the valve top, **E**, by turning counter-clockwise and replace with a septum, **F** (not included).
5. Place a septum, **G** (not included), on the side arm, **H**, of the Oxford Sure/Seal Valve.
6. Flush the system through septum, **G**, and out through septum, **F**, with dry nitrogen for 5 minutes.
7. While maintaining a static pressure of nitrogen through the side arm, **H**, use syringe techniques (described in Technical Bulletin AL-134) to remove the desired amount of liquid through the septum, **F**.
8. For extended storage, replace the top septum, **F**, with the valve top, **E**, saved from step 5, and hand-tighten the valve.
9. Repeat steps 4-6 the next time a sample of product is needed.

Accessories

(Also Use photo from Precision Seal Trifold)

Precision Seal Septa

# For use with:	White rubber	Red rubber
#3 Sidearm of Oxford Sure/Seal valve		
8-mm o.d. standard-wall glass tubing		
9-mm o.d. medium-wall glass tubing		
	Z55,391-3	**Z55,403-0**
#6 Valve top of Oxford Sure/Seal valve		
10/30 joints and small test tubes		
	Z55,395-6	**Z55,406-5**



A. Sure/Seal polypropylene overcap
Red plastic overcap protects metal crown cap. **Z40,631-7**

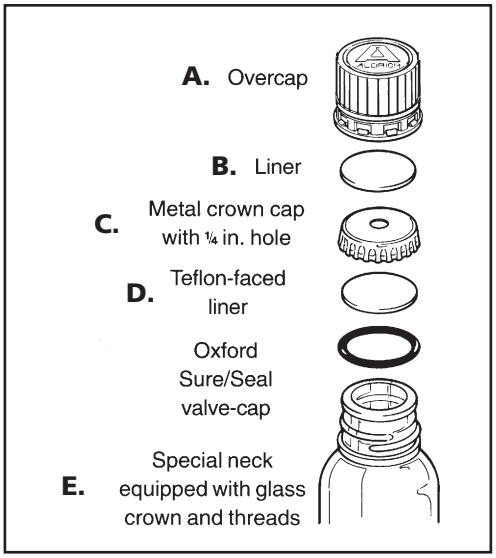
B. Natural-rubber liner- white
For Z10,807-3; 30mm diam.; 60mil. **Z10,808-1**

C. Steel crown cap
With 1/4in. hole. **Z10,214-8**

D. Teflon-faced liner
For use with steel crown cap. 26mm diam. **Z24,447-3**

E. Sure/Seal amber bottles

Capacity	Glass	Plastic-coated
125mL	**Z40,627-9**	**Z40,629-5**
1000mL	**Z40,628-7**	**Z40,630-9**



Transfer needles

12 gauge SS, double-ended with one deflecting tip and one flat-cut end. For fabrication of transfer lines with CHEM-FLEX™ 106 tubing.

6 inches long **Z11,639-4**
18 inches long **Z11,640-8**

CHEM-FLEX™ needle

Two 12gauge SS needles (6 and 18in.) connected to 30in. of CHEM-FLEX 106 tubing with nylon clamps, ready for use. Liquid comes in contact with Teflon and SS only during transfer.
Z23,102-9