

Lyophilizers (freeze dryers) pose aerosol risks because processes like loading/unloading, vial breakage, and even normal operation under vacuum can generate aerosols contaminating surfaces, equipment, and personnel, especially during manual handling or if equipment fails.

LYOPHILIZER: Safety Practices

- Seal samples in appropriate containers (e.g., vials with septa) before lyophilization.
- Avoid overfilling containers to prevent boil-over and splashing.
- Place the lyophilizer inside a biosafety cabinet or use a secondary containment enclosure when handling biohazardous materials.



- Install HEPA filters on the vacuum exhaust line of the lyophilizer.
- After lyophilization is completed, disinfect all surfaces of the unit that have been exposed to the agent. If the lyophilizer is equipped with a removable chamber, close it off and move it to a BSC for unloading and decontamination.