

Syringe loading creates aerosols primarily by introducing and expelling air, which can forcefully aerosolize liquids when bubbles are pushed through the needle. Other causes include a pressurized liquid being withdrawn from a stoppered vial or the separation of a needle from a syringe during use.

SYRINGE: Safety Practices

- Load syringes inside a biosafety cabinet or other containment equipment (e.g. fume hood) when working with biohazardous solutions/suspensions.
- When withdrawing a solution from a vial, discharge the air from the syringe before inserting the needle into the stopper.
- Fill syringes carefully. Avoid frothing or introducing air bubbles.



Removing air bubbles: With the needle connected to the vial, tap the barrel of the syringe so that trapped air bubbles move into the needle area. Next, push the air bubbles back into the vial.