Aerosol Exposure Control - Vacuum Flask

Certain procedures that utilize a lab vacuum system, particularly the aspiration of liquids, are known to generate aerosols due to the physics of fluid dynamics and air pressure.

When the aspirated liquid collects in a vacuum trap flask, air bubbles expand and burst at the surface. This action effectively ejects a mist of fine liquid droplets into the air inside the flask.

VACUUM FLASK: Safety Practices

- Place the vacuum flask equipment inside a biosafety cabinet or other containment equipment (e.g. fume hood).
- Use non-glass flasks, which are less likely to break and can be more contained.
- Release the vacuum slowly and carefully, especially when dealing with liquids or powders. Avoid sudden movements or drops that could cause aerosolization.

- Traps (containing a disinfectant like bleach) and in-line HEPA filters are essential to prevent aerosols from contaminating the central house vacuum system.

Click to learn how to make a trap