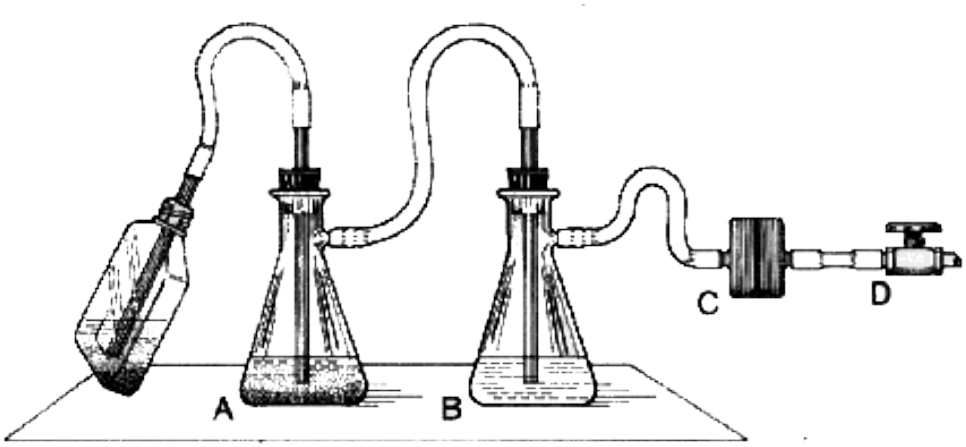
Filters

By Kathleen Joseph, Biosafety Officer

During visits to labs, the Biosafety Officers have noted a lack of hydrophobic filters for aspiration both on the lab bench and in the biosafety cabinet. We hope this information will help improve practices in the laboratory.

CDC and NIH have some guidance information in a document entitled *Primary Containment for Biohazards*
http://www.cdc.gov/od/ohs/biosfty/bsc/bsc.htm
The left suction flask (A) is used to collect the contaminated fluids into a suitable decontamination solution; the right flask serves as a fluid overflow collection vessel. A glass sparger in flask B minimizes splatter. An in-line HEPA filter (C) is used to protect the vacuum system (D) from aerosolized microorganisms.



Instead of using just a plain HEPA filter, the Biosafety Office recommends a hydrophobic filter that incorporates the HEPA. Keeping both the moisture and the agent out of the vacuum system or pump helps prolong their life, user safety and the safety of those who maintain the systems/pumps. One example of a hydrophobic filter is the Whatman Vacu-Guard. In the Lab Safety Supply catalog, there are 2 sets of 10 packs that will work; items 53274 or 99978. There are other filters that also do the same job including Vacushield® which is item Z268518 for Sigma-Aldrich and 55095-006 for VWR. The filters are said to have a 3 month life span. Most people find it's closer to 2. They really don't work once they become wet. The sparger must come down past the arm of the flask to prevent moisture and contamination in both the arm and the filter.

One real life example