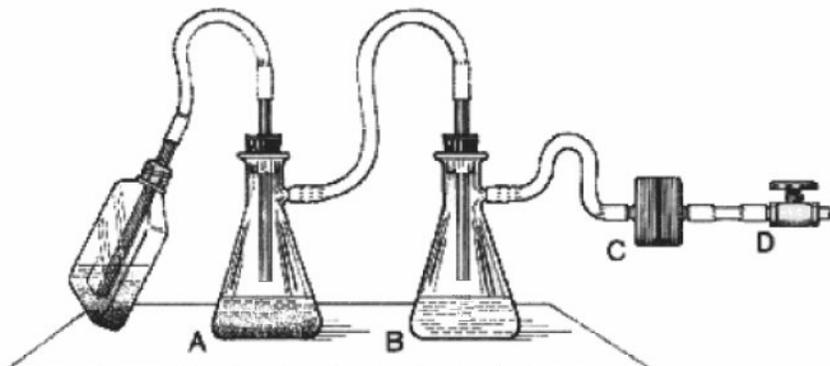


Liquid Waste Collection in a Biosafety Cabinet

Protection of Vacuum Systems Used in Tissue Culture Work

The recommended method to protect a house vacuum system during aspiration of infectious fluids is shown below. The left suction flask (A) is used to collect contaminated fluid into a suitable decontamination solution; the right flask serves as a fluid overflow collection vessel. Flask (B) also minimizes splatter in the vacuum line. An in-line HEPA filter (C) is used to protect the vacuum system (D) from aerosolized microorganisms.



This schematic is from Biosafety in Microbiological and Biomedical Laboratories, 5th edition, Office of Health and Safety, Centers for Disease Control and Prevention, 1600 Clifton Road N.E., Mail Stop F05 Atlanta, Georgia 30333, USA;
<http://www.cdc.gov/biosafety/publications/bmb15/>

<p>Example HEPA filter for vacuum line</p> 	<p>Whatman HEPA-Vent Filter Assure sterile air for mixing, filling, storing, fermenting, and transporting with this Whatman filter. Glass fiber filter is treated to be mildly hydrophobic; repels moisture, prevents bacterial growth; 0.3μm particle retention unaffected by autoclaving. Bidirectional flow. 16cm² filter area. Inlet/Outlet: 1/4-3/8 in. tapered hose barb Whatman No.: 6723-5000</p>	<p>Fisher Scientific: 09-744-79</p>
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If a glass flask is used at floor level, place it in a secondary plastic container to prevent breakage.

Bleach Disinfection of Contaminated Liquid Waste

You can treat most liquid waste with bleach. To treat liquid waste with a high organic load (blood, body fluids, spent cell culture media):

1. Mark 1000 ml accurately on the side of a 2000 ml Erlenmeyer vacuum flask
2. Add 100 ml of fresh household bleach to the flask
3. Collect contaminated liquids, swirl the flask periodically
4. When the 1000 ml mark is reached, stop adding material, swirl the flask, leave for at least 30 minutes or let sit overnight
5. Discard treated liquid in the sink and follow by flushing with at least four liters of rinse water. Discard treated liquid at least once a week.