

# Inactivating Liquid Media

## Don't Pour Potentially Infectious Liquids Directly Down the Drain...

Most liquid potentially infectious materials, including viral and bacterial cultures, blood, plasma, serum, BBPs, etc. are readily inactivated with a solution of 10% bleach and can undergo sink disposal with copious amounts of water following chemical decontamination. Exceptions include small quantities of blood or other potentially infectious liquids (<50 ml) in tightly capped tubes, which should be disposed into red bags.



*Columbia has a strict drain disposal policy*



### Antimicrobial Activity

It is crucial to inactivate potentially infectious liquids with an EPA- registered disinfectant that targets the specific microorganisms present. Columbia's Regulated Medical Waste Plan (QR code below) includes proper methods for the disposal of potentially infectious liquids and chemical inactivation. Bleach does fall short of disinfecting certain parasites and spores. Some examples include *C. difficile*, *Cryptosporidium*, *Giardia*, and Q fever. If you are uncertain on the proper method or disinfectant to use, please reach out to biosafety@columbia.edu.

### Is this Disinfectant Safe for Drain Disposal?

Bleach is a safe and compatible disinfectant for drain disposal, however, other disinfectants might harm aquatic life or pollute the environment if not adequately removed by treatment processes. It should be noted that full strength bleach should never be poured down the drain. If you are unsure about a specific disinfectant's environmental impact or toxicity, reach out to EH&S for guidance.

### Unintended Redox Chemistry

There may be times when chemicals in culture media react poorly with disinfectants. Review the product's SDS to ensure compatibility before mixing. These potential chemical reactions can generate harmful gases. If unsure about compatibility, don't hesitate to consult with EH&S.

### Fun FAQ!

Pay attention to the expiration date – bleach loses its potency after six months. Write the date on the container to track its effectiveness.



Have more questions? Reach out to EH&S at Labsafety@columbia.edu or give us a call

CUIMC: (212) 305 - 6780

Manhattanville/Morningside: (212) 854 - 8749



@Columbiaehs



<<< Bleach incompatibilities FAQ Sheet



Columbia University RMW Management Plan. >>>

# Inactivating Liquid Media

## Don't Pour potentially infectious liquids Down the Drain...

Disposing of potentially infectious liquids down the drain is a no-go! It is crucial to inactivate potentially infectious liquids with an EPA-registered disinfectant that targets the specific microorganisms present. This is because some microorganisms cannot be removed through municipal water treatment and can pollute the aquatic environment or persist in soil. Columbia's Regulated Medical Waste Plan (QR code below) includes proper methods for liquid potentially infectious liquids disposal and chemical inactivation.



Columbia has a strict no drain disposal policy



### Antimicrobial Activity

Most liquid potentially infectious liquids materials, including viral and bacterial cultures, blood, plasma, serum, BBPs, etc. are readily inactivated with a solution of 10% bleach and can undergo sink disposal following chemical decontamination. Bleach does fall short of disinfecting certain parasites and spores. Some examples include *C. difficile*, *Cryptosporidium*, *Giardia*, and Q fever. Small quantities of blood or other liquid potentially infectious liquids (150 ml) in tightly capped tubes



### Is this Disinfectant Safe for Drain Disposal?

Bleach is a safe and compatible disinfectant for drain disposal and mirrors the chlorination step in municipal wastewater treatment. However, other disinfectants might harm aquatic life or pollute the environment if not adequately removed by treatment processes. It should be noted that full strength bleach should never be poured down the drain. If you are unsure about a specific disinfectant's environmental impact or toxicity, reach out to EH&S for guidance.

### Fun FAQ!

When selecting bleach, make sure to choose one that targets the microorganisms used in the lab! After six months bleach loses its potency, so you will have to purchase more!



### Unintended Redox Chemistry

There may be times when chemicals in culture media react poorly with disinfectants. Review the product's SDS to ensure compatibility before mixing. These potential chemical reactions can generate harmful gases. If unsure about compatibility, don't hesitate to consult with EH&S.

Have more questions? Reach out to EH&S at [Labsafety@columbia.edu](mailto:Labsafety@columbia.edu) or give us a call

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Columbia University potentially infectious liquids Management Plan. >>>

To add concentrated bleach to a final volume of 10% of the liquid. Other liquid potentially infectious liquids (including bacterial cultures, tissue culture media) can also undergo sink disposal following chemical decontamination. Small quantities of blood or other liquid potentially infectious liquids (<50 ml) in tightly capped tubes should be disposed into the potentially infectious liquids stream (see Procedures; below)

Before choosing a bleach bottle, make sure to check the label. Pay attention to the expiration date – bleach loses its potency after six months. Write the date on the container to track its effectiveness.