ENVIRONMENTAL HEALTH AND SAFETY
University of Nebraska-Lincoln

Safe Operating Procedure

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BODY FLUID SPILL CLEAN-UP (NON-BBP)

Introduction

Body fluid spills including vomit, urine, feces, nasal secretions, saliva, sputum, sweat, and tears that are not visibly contaminated with blood are not considered other potentially infectious materials (OPIM) under the OSHA Bloodborne Pathogens (BBP) Standard. However, it is conservative and prudent to treat these materials similarly to OPIM.

Scope

The purpose of this document is to outline proper procedures for clean-up, decontamination, and disposal of a non-OPIM body fluid spill materials. These procedures should be followed by all individuals who are involved in the clean-up. Cleaning up spills described in this document does not require enrollment in the UNL Bloodborne Pathogens Program. If blood is visible in a body fluid spill, the spill should be cleaned up by an individual who is trained and authorized to clean up blood and other bloodborne pathogen-related spills. Large spills (e.g., sewer or toilet backup spills) are beyond the scope of this document and staff encountering those types of spills should contact custodial or other maintenance staff that are trained to clean up those type of spills.

Recommended Spill Clean-Up Kit Contents:

- A durable container to store the clean-up supplies
- Several dark trash bags
- Disinfectant – freshly-prepared 10% solution of household bleach (1 part bleach and 9 parts water; or add ~½ cup bleach to 1 quart of water) or other commercial chlorine or iodine based disinfectant. Disinfectants that work against non-enveloped viruses are recommended. *See Table 1, Liquid Disinfectant Comparison.*
- Inert absorbing material (e.g., diatomaceous earth, hy-dri, kitty litter, absorbent pads, paper towels)
- A small dust pan and hand brush or tongs
- Personal protective equipment, including several pairs of latex gloves, goggles, face shield, face masks, coveralls, and paper boots
- A heavy cardboard box or plastic bucket with lid
- Antiseptic wipes
- A sign indicating there is a spill to block off the area safely

Spill Clean-up Procedures

Follow these procedures if you are cleaning up a spill of non-OPIM body fluids (e.g, vomit, urine, feces, nasal secretions, saliva, sputum, sweat, and tears.)

- If skin is contaminated, wash with copious amounts of soap and warm water.
- Identify and mark the spill area so that others do not inadvertently enter the area until clean-up is complete.
- Spills on porous surfaces such as carpet or cloth furniture may require additional steps or removal of the contaminated material instead of using the procedures below. Contact your supervisor or custodial services if this situation occurs.
- If assistance is needed because the spill is unusually large, it involves additional hazards, or clean-up materials are not available, contact EHS at 402.472.4925
- Put on personal protective equipment before beginning clean-up. Minimal PPE consists of impervious gloves; goggles, mask or chin length face shield, if there is a splash hazard; and impervious coveralls or other disposable outer garment if the spill of a nature that outer clothing is likely to become soiled during clean-up.
- Gently place absorbent material (i.e., paper towels) over the spill.
    - If using a powdered absorbent, allow it to fully absorb and use a paper towel to compress the absorbent to ensure no liquid remains. Use appropriate, non-aggressive means to remove as much of the solid and semi-solid material as possible.
- Cover with appropriate disinfectant (i.e., freshly prepared 10% bleach). Pour disinfectant slowly to minimize aerosols. See EHS SOP, ***Chemical Disinfectants for Biohazardous Materials***.
- Allow disinfectant to soak area for 20 minutes.
- Using tongs to remove contaminated sharps (i.e., broken glass) from the spilled material and place in a rigid, puncture and leak proof container, if necessary.
- Carefully place the absorbent material into a dark trash bag. Place the first trash bag in a second trash bag to ensure any leaks are contained.
- Clean spill area again with disinfectant and add materials to trash bag.
- Remove PPE and place any disposable PPE in the trash bag.
- Reusable PPE (google, face shield) can be sprayed with disinfectant and reused.
- Secure bag by twisting top, folding the twisted portion back on itself then secure with twist ties, zip ties or tape (Figure 1).

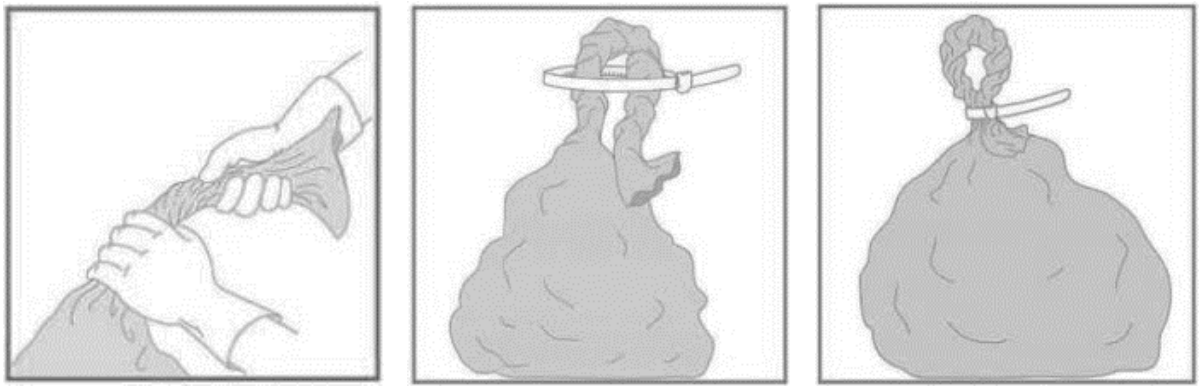

Figure 1 How to securely tie a waste bag

Final area clean-up

- Bagged waste can be disposed of directly into a dumpster. Disinfect reusable tools, equipment, and supplies.
- Thoroughly wash hands, arms, face and any other exposed body part with soap and water.
- After cleaning and disinfecting equipment, return it to the proper storage area. Replace consumed materials, such as PPE, bags, and other items so that they will be available for future use.
- Record the incident and report it to your supervisor.

Liquid Disinfectant Comparison Table 1

Disinfectant	Quaternary ammonium compounds	Phenolic compounds	Chlorine compounds [5]	Peroxygen Compounds (Virkon® S)	Alcohol (ethyl or isopropyl)	Formaldehyde (liquid) (*Formalin*)	Glutaraldehyde	Hydrogen peroxide (liquid)
Use Requirements								
Final Concentration for use	0.1-2%	0.2-5%	500-10000 ppm available chlorine	1-2%	70-85%	10% formalin solution	2%	6-30%
Contact Times								
Lipo viruses Only	10 min	10 min	10 min	10 min	2-10 min	10 min	15 min	10 min
Broad spectrum	**N/E**	**N/E**	30 min	10 min	**N/E**	30 min	30 min	60 min
Inactivates								
Vegetative bacteria	X	X	X	X	X	X	X	X
Enveloped viruses	X	X	X	X	X	X	X	X
Tubercle bacilli		X	X	X	X	X	X	X
Non-enveloped viruses		[1]	X	X	[1]	X	X	X
Bacterial spores			X, [6]			X	X	X
Important Characteristics								
Effective Shelf Life [2]	>1 year *See mfg label.*	up to 1 week	24h (5000 ppm); 14d (8000 ppm) 30d (10,000 ppm)	Solution: 7 days	Check with mfg. or 1-3 years	>1 week	14 days	5-7 days
Inactivated by organic matter	X		X		X			
Residual		X	X			X	X	
Corrosive		X	X	X				X
Flammable					X			
Irritant: Skin/eye/respiratory	X / X / X	X / X / X	X / X / X	X / X / X	* / X / *	X / X / X	X / X / X	X / X / X
Toxic	X	X	X		X	X	X	
Applications								
Work Surfaces	X	X	X	X	X	X	X	X
Equipment Surfaces	X	X	X & [4]	X	X	X	X	X
Lens Compatible [3]	X						X	
Other considerations	**[8]**	**[7], [8] Unpleasant odor**	**[7]**	**Can be used in foot baths**		**Carcinogen**	**[9]**	**[4] Oxidizer**

KEY:

N/A = Not applicable
N/E = Not effective
X = Effective disinfectant/characteristic
[1] = Variable results dependent on virus
[2] = When protected from light and air
[3] = Refers to microscope and camera lenses
[4] = Will corrode stainless steel and other metals
[5] = 10:1 dilution of 5.25% bleach = 5000 ppm
[6] = >2500 ppm
[7] = Effectiveness reduced by alkaline pH
[8] = Effectiveness influenced by hard water and detergents
[9] = Usable on plastics, rubber, lenses, and other items that cannot be autoclaved.

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