

Biomedical Waste Disposal Guide

Table 1

Biomedical Waste Disposal Guide for BSL1 & BSL2 Research Laboratories			
Waste Type	On-site Treatment Required	Primary Biohazard Waste Container	Transport Container Type
Stock cultures, isolates, concentrated pure cultures of human or animal pathogens	Autoclave or place in sharps container	Red bag [#]	Stericycle
Other microbial culture plates and tubes	N/A	Red bag [#]	Stericycle
Human/animal liquid cell culture waste	Autoclave or chemical disinfection	Sanitary Sewer	N/A
Human/animal solid cell culture waste	N/A	Red bag [#]	Stericycle
Vaccines-live and attenuated	Autoclave	Red bag [#]	Stericycle
Animal carcasses, body parts, solid waste	Follow AUSI	Red bag [#]	Label "Incinerate Only" Stericycle
Vials or tubes of blood or bloody body fluids	N/A	Sharps container → Red bag [#]	Stericycle
Sharps, needles, syringes, scalpel blades, (things that can puncture the red bag)	N/A	Sharps container → Red bag [#]	Stericycle
Contaminated* solid waste	N/A	Red bag [#]	Stericycle
Contaminated* disposable plasticware	N/A	Red bag [#]	Stericycle
Contaminated* lab clothing	N/A	Red bag [#]	Stericycle
Contaminated* disposable gloves	N/A	Red bag [#]	Stericycle
Contaminated* reusable glassware	Autoclave/chemical disinfection	Rigid, leak proof container with lid	N/A
Disposable lab clothing – no contamination	N/A	N/A	N/A
Disposable pipettes, tips – no contamination	Corrugated box	N/A	Regular waste
Disposable gloves – no contamination	N/A	N/A	Regular waste

*contaminated refers to waste containing bulk blood, microbes, infectious agents, or other biological agents

[#] Red bag liner must pass ASTM-D testing

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Biomedical Waste Disposal Guide for BSL3 or Special Medical Waste Categories			
Waste Type	On-site Decontamination Required	Primary Biohazard Waste Container	Transport Container Type
Mycobacterium tuberculosis (cultures & solid waste)	Autoclave	Red bag [#]	Stericycle
<u>Select Agents**</u>	Autoclave	Red bag [#]	UAB HMF
HIV research lab solid waste	Autoclave	Red bag [#]	Stericycle
HIV research lab liquid waste	Autoclave	Sanitary Sewer	N/A
<u>Category A Agents***</u> (i.e., Dengue, LCMV, Rift Valley Fever, Bacillus anthracis - Sterne)	Autoclave	Red bag [#]	Stericycle
Other Risk Group 3 microbial agents	Autoclave	Red bag [#]	Stericycle
Biological toxins	See Section 11.3 or Chemical Safety Manual	See Section 11.3 or Chemical Safety Manual	Label “Incinerate Only” Stericycle
CJD waste	N/A	Sharps container – Lab Red bag [#] - Surgery	Label CJD Incinerate Only UAB Red Barrel
Pathological specimens in ≤ 10% formalin	Dispose of formalin in sanitary sewer	Red bag [#]	Label “Incinerate Only” Stericycle
Medical waste containing radioactive or chemical wastes	Consult with OH&S	Consult with OH&S	Consult with OH&S

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Table 2. Biological Toxins

Toxins	Autoclave*	Chemical Inactivation			Comments
		2.5% NaO Cl + 0.25 N NaO H	2.5% NaO Cl	1.0% NaO Cl	
	1 hr at 121°C liquid cycle slow exhaust				See Chemical Safety Manual for handling, storing, or disposal of toxins.
Abrin	Yes	N/A	N/A	N/A	
Botulinum neurotoxins	Yes	Yes	Yes	Yes	
<i>Clostridium perfringens</i> epsilon toxin	Yes	N/A	N/A	N/A	<i>*Methods of decontamination for the epsilon toxin do not appear to have been published.</i>
Conotoxins	No	N/A	N/A	N/A	Inactivated by reactive disinfectants such as glutaraldehyde and formaldehyde.
Diacetoxyscirpenol	No	Yes	Yes		
Ricin	Yes	Yes	Yes	Yes	
Saxitoxin	No	Yes	Yes	Yes	
Shigatoxin and Shiga-like ribosome inactivating proteins	Yes	Yes	Yes	Yes	Inactivated by oxidizing agents such as bleach and reactive sterilants such as glutaraldehyde.
Staphylococcal enterotoxins	Yes	Yes	Yes	Yes	
Tetrodotoxin	No	Yes	Yes	Yes	
T-2 toxin	No	Yes	No	No	The trichothecenes are very stable and resist heat-and ultraviolet-light-induced inactivation.