

BSL-1/BSL-2 Biohazardous Waste Disposal General Guidelines Texas A&M University Biosafety Program

	Solids	Liquids	Sharps	Animal Materials	Transgenic Drosophila	Transgenic Plant Material
Description	Any of the following - Petri dishes, culture flasks, centrifuge tubes, gloves, bench paper, etc. - contaminated with biohazardous materials including: bacteria, fungi, parasites, viruses, rDNA, human or non-human primate cells, cell lines or bodily fluids.	Liquid waste contaminated with biohazardous materials including: bacteria, fungi, parasites, viruses, rDNA, human or non-human primate cells, cell lines or bodily fluids.	Any of the following – Needles, scalpel blades, razor blades, broken glass, pipette tips, Pasteur pipettes - contaminated with biohazardous materials including: bacteria, fungi, parasites, viruses, rDNA, human or non-human primate cells, cell lines or bodily fluids.	Animal carcasses and body parts if the animal has been exposed to biohazardous materials including: bacteria, fungi, parasites, viruses, rDNA, human or non-human primate cells, cell lines or bodily fluids & including transgenic animals .	Genetically modified Drosophila (flies, larvae, and eggs).	Genetically modified plants (including flowers, seeds, stems, leaves, roots, and any material capable of propagation).
Storage	Collect solid waste in red or orange biohazard bags placed in a leak proof container with a tight-fitting lid. Volume of waste should not exceed ¾ of the capacity of the container.	Collect liquid waste in a leak proof container with a lid. Volume of waste should not exceed ¾ of the capacity of the container.	For needles, razors, and scalpel blades: use an approved autoclavable sharps container. For broken glass¹, pipette tips and serological pipettes: Container must be rigid, leak proof, and puncture resistant. Volume of waste should not exceed ¾ of the capacity of the container.	Collect carcasses in a biohazard bag placed in another sealed, leak proof bag or container. Store closed bag in freezer until they can be transported in secondary containment to incinerator.	Collect flies, larvae and eggs in vials or bottles. Store in red or orange biohazard bags placed in a leak proof container with a tight-fitting lid. Volume of waste should not exceed ¾ of the capacity of the container.	Collect solid waste, including soil, in red or orange biohazard bag placed in a leak proof container with a tight-fitting lid. Volume of waste should not exceed ¾ of the capacity of the container.
Labeling	Label the bag or container with name of PI, building and room number.	Label the container with the name of the PI, building, and room number.	Label the container with the name of the PI, building, and room number.	Label the bag or container with the name of the PI and its contents.	Label the bag or container with name of PI, building and room number.	Label the bag or container with the name of the PI, building, and room number.
Treatment	Deface biohazard symbol with autoclave tape. Place bag in a tub and steam sterilize in the autoclave using the gravity cycle. ²	Treat with household bleach (10% final volume) for 30 minutes ⁷ OR Steam sterilize in the autoclave using the liquid cycle. ² Liquids treated with Bleach must never be autoclaved.	Steam sterilize in the autoclave using the gravity cycle. ²	Incineration OR Biodigestion	Deface biohazard symbol with autoclave tape. Place bag in a tub and steam sterilize in the autoclave using the gravity cycle. ^{2,3}	Autoclave ² or bake materials at 65°C. Field materials may be burned or devitalized in accordance with USDA-APHIS permit requirements. ⁴
Disposal	Apply treatment sticker to cooled biohazard bag and place into black trash bag before disposing in the dumpster. ^{5,6}	Disinfected liquids may be disposed of down the laboratory sink.	Apply treatment sticker to the container and place into black trash bag before disposing in the dumpster. ^{5,6}	N/A	Apply treatment sticker to cooled bag and place into black trash bag before disposing in the dumpster.	Apply treatment sticker to cooled bag, place in secondary black bag and dispose of treated waste in the dumpster. Field materials can be incorporated into the soil.

¹ Contaminated broken glass must be decontaminated prior to disposal. Contaminated broken glass may be decontaminated by applying 10% bleach for 30 minutes.

² Autoclave cycles must be initially validated and routinely verified using biological indicators. Verification must be performed monthly on autoclaves used to sterilize BL1 waste and biweekly on autoclaves used to sterilize BSL-2 waste. A treatment log must be maintained to document autoclave cycle parameters used for biohazardous waste treatment as well as frequency of autoclave testing using biological indicators.

³ Contact the Office of Biosafety (biosafety@tamu.edu or 979-862-4549) for alternative IBC approved methods for disposal of transgenic flies.

⁴ Methods for devitalization may include composting, desiccation, or chopping followed by tilling into the soil.

⁵ Contact the Office of Biosafety (biosafety@tamu.edu or 979-862-4549) to replenish treatment stickers.

⁶ Alternatively, a third-party vendor may be contracted to pick up biohazardous wastes.

⁷ Always ensure that chemical disinfectants are appropriate for the agent being treated.