



## 6. Waste Management

### BACKGROUND

The UBC Okanagan Campus has programs in place to ensure that the safe disposal of hazardous and non-hazardous wastes has a limited impact on the environment. In order for these waste streams to work effectively, the waste must be properly segregated by each user.

### NON-HAZARDOUS WASTE

For the latest information on recycling and disposing of non-hazardous wastes, visit <https://sustain.ok.ubc.ca/initiatives/>. For E-wastes, please visit <https://hse.ok.ubc.ca/environment/small-e-waste/>. In order for materials to be put into the non-hazardous waste stream they **cannot** have ever contained or have come in contact with any hazardous materials.

### HAZARDOUS WASTE

More information on the packaging, storage, handling and removal of hazardous wastes can be found in the [Pollution Prevention Manual](#) and on the HSE webpage for [hazardous materials management](#). The [Hazardous Waste Management Course](#) is **required** for anyone who produces, handles or submits hazardous wastes. In addition to the information presented below, a general waste flow chart and hazardous waste disposal procedures are found in section IV. *Resources* of this manual. All hazardous wastes, except large e-wastes, are handled and managed by Health, Safety and Environment.

#### Chemical Wastes

Proper segregation of wastes helps prevent mixing of incompatible chemicals, reduces disposal costs and helps to identify new streams for future recycling programs. All containers holding hazardous wastes should be kept capped at all times unless being filled. All hazardous wastes should be labelled:

- Using a hazardous waste tag
- With the percent composition and chemical name.

In this laboratory, hazardous chemical wastes are stored: [REDACTED]

Flammable materials are restricted in the lab to 25 L (container size) outside of a ULC approved flammable cabinet. Flammable chemicals are marked as flammable on their SDS. A designation of flammability is given when the flash point of a compound is below 37.8°C.

#### Biological Wastes

If your lab uses any of the following biological materials in the lab for experimentation, see [HSE Hazardous Materials Management](#) website for more detailed waste procedures

- |                                      |                           |
|--------------------------------------|---------------------------|
| • DNA                                | • Blood (human or animal) |
| • Bacteria                           | • Human bodily fluids     |
| • Plants                             | • Animal bodily fluids    |
| • Fungi                              | • Cell lines              |
| • Animals (preserved or unpreserved) |                           |



### GUIDELINES FOR HAZARDOUS WASTE

In order for workers to safely pick up hazardous materials, they must meet the following guidelines:

1. Bottles must be clean (outside)
2. Lids must fit tightly
3. 20% of the bottle should be empty 'headspace'
4. Materials should be stored according to their compatibility
5. Percentages of components should total 100% and should match that submitted through the electronic hazardous waste inventory system (HWIS)

### REFUSAL OF HAZARDOUS WASTE

For the safety of workers, HSE staff may refuse to transport hazardous waste unless it meets the above guidelines. When waste is refused, the generator will receive an email indicating the reason for the refusal. In most cases, the waste will automatically be included in the next waste pick up (usually 1 week).

### WASTE PACKAGING

*See next page*

**WASTE PACKAGING**

While the flow chart for handling hazardous waste outlines the packaging requirements for hazardous materials (chemical and biological), this document is meant to quickly differentiate between the different types of waste packaging, and indicate where to obtain resources to package wastes.

Type of Waste	Type of Packing	Storage location in the lab:	How to Obtain More Packaging
Sharps	Impervious sharps boxes		Order from Supplier (VWR, Fisher, etc)
Risk Group 1 Materials	Double bagged in clear autoclave bags <b>without</b> biohazard symbols		
Risk Group 2 Materials	Orange autoclave bags with biohazard symbols. Double bagged to prevent leaks		
Used slides – Risk Group 2	Red buckets		Contact Health, Safety & Environment by visiting the Hazardous Materials webpage at <a href="http://www.hse.ca/okanagan/hse/Environment/hazardousmaterials.html">www.hse.ca/okanagan/hse/Environment/hazardousmaterials.html</a>
Biomedical Waste (blood, bodily fluids)	Red buckets		
Uncontaminated lab plastics	Fisher/Corning Lab plastics Recycling program		
Wet Pathological Material (animals)	Red buckets		
Dry Pathological Material (animals)	Red bucket lined with clear bags		
Solvents / Chemicals	Used solvent bottles, or small jerry cans		