1. BI Substance Policy

a. Substances are considered all hazardous or biological inventory items or samples in BI laboratories.
b. Any unauthorized or non-inventoried substances found in the BI laboratory will be disposed of or destroyed appropriately, with financial responsibility falling to the users and their respective supervisor.

1.1. Substance Labelling

a. Substance labeling will be in accordance with WHMIS 1988 & 2015 labeling standards to include supplier and McMaster workplace labels, as outlined in EOHSS WHMIS training modules.
b. McMaster workplace labels are available from Scientific stores, but in-house workplace labels are accepted provided they include the product name, handling precautions, date and a reference to the safety data sheet (SDS).
c. If applicable, write the BI identifier number on the substance label.
d. Labels on containers containing substances should not be removed or defaced, unless the container is empty, cleaned and ready for disposal.

1.1.1. Biological Labelling

a. Biological substances also require the biosafety level designation. Refer to the BI Biohazard Work Policy.

1.2. Substance Handling

a. Individuals that handle hazardous materials should be trained in the safe handling, separation, storage and disposal procedures for the specific hazardous materials used in BI laboratories. Refer to RMM #501: Hazardous Materials Management Systems Including WHMIS Program.
b. Refer to the respective SDS/PSDS prior to handling any substance.
c. Users should inspect substances prior to handling, to ensure the substance is not expired or unstable (e.g. peroxide former).
d. BI users may only use and/or handle substances for which they are authorized.
e. BI users should use the appropriate engineered system(s) when handling or transporting hazardous substances, to avoid exposure.
f. Transportation of Dangerous Goods should be in accordance with RMM #505: Transportation of Dangerous Goods.
g. Designated substances must be identified and accompanied by a written risk assessment, which must be approved by the health and safety authorities. Refer to RMM #500: Designated Substances Control Program.

1.2.1. Biological Handling

a. Biological agents must be handled according to the containment levels associated with its biosafety level. Refer to the BI Biohazard Work Policy.
b. Movement and/or transportation of biological materials within/outside the facility or labs should be performed using a labelled, leak-proof, and impact-resistant container. Refer to the BI Biohazard Work Policy.

1.3. Substance Inventory

a. All chemicals that are in the BI for greater than 24 hours must be logged in the BioELN, while ALL biological agent(s) and/or material(s), regardless of time in the BI, must be logged in the BioELN. Refer to the BI BioELN Policy.
b. All inventoried items must have a SDS/PSDS kept on file. This may be electronic (in BioELN enter CAS number or attach file) or printed.
c. When using or removing a substance, ensure to update the BioELN inventory.

1.4. Substances Storage

a. Substances must be stored in cool, dry, well ventilated areas, away from offices and emergency exits, and not in fume hoods.
b. Substance containers should be properly maintained, in good condition and properly labeled.
c. Stored chemicals should be separated according to compatibility (oxidizer, water reactive, flammables, acids, caustics/bases). Incompatible chemicals must be stored away from each other. Refer to the McMaster Laboratory Handbook.
d. Unopened peroxide formers, without inhibitors, should only be kept for one year.
e. Opened ethers (peroxide former) should be kept no longer than 6 months.

1.4.1. Biological Storage

a. Biological storage units will be labeled as biohazardous, with containment level.
b. Ensure biological agent(s) and/or material(s) are stored according to the appropriate containment levels and BI Biohazard Work Policy.
c. Access to storage units of BSL-2 materials will be restricted and only accessible by authorized BI users. Refer to the BI Biosecurity Policy.

1.5. Substance Documentation

a. Substance SDS/PSDS may be electronic (in BioELN enter CAS number or attach file) or printed and kept in the BI office, or in BI laboratory area where the substance is storage. SDS/PSDS will be updated as new information is available.

1.6. Substance Removal

a. Refer to the BI Waste Policy for disposal guidelines.