GMOs with Halogenated Compounds Disposal

This protocol describes the disposal of GMO material that has been in contact with halogenated compounds such as TFA or PFOA. The halogenated compounds are not destroyed by autoclaving and must not enter the drain, so everything that has touched them leaves the lab as chemical waste. The biological material is inactivated with Halamid and then goes to chemical waste.

Materials

- Halamid (chloramine-T)
- Water for rinsing

Equipment

- Labelled chemical waste container (jerrycan) with funnel
- Dedicated bin or tray for solid waste
- Dedicated beaker or tray for the Halamid step
- Nitrile gloves, lab coat and safety goggles

Liquid and Solid GMO Waste

1. Collect the waste in a dedicated container at the bench; keep it separate from the normal GMO waste stream.
2. Add Halamid to a final concentration of 1% w/v and mix.
3. Leave for at least 30 min to inactivate the organisms.
4. Route the treated waste by volume:
   (a) up to 50 mL: discard it with the solid halogenated waste, in a closed tube or container;
   (b) more than 50 mL: pour it into the liquid halogenated waste container.
5. Do not autoclave this waste and do not pour it down the sink.

Reusable Utensils and Equipment

6. Treat the item with Halamid as above.
7. Rinse it with water over a tray or basin so that no rinse water reaches the drain, and repeat the rinse once.
8. Pour all the collected rinse water into the liquid halogenated waste container, then autoclave and wash the item normally.