

3.12. Autoclave Monitoring and Validation

Autoclaves used to decontaminate laboratory waste should be tested periodically to assure effectiveness. As an institutional practice, IUEHS Biosafety advises semi-annually or quarterly QA testing of autoclaves. Two types of tests are used: 1) a chemical indicator that fuses when the temperature reaches 121°C, and 2) heat-resistant spores (*Bacillus stearothermophilis*) that are killed by exposure to 121°C for approximately 15 minutes. Both types of tests should be placed well down in the center of the bag or container of waste, at the point slowest to heat.



The chemical test should be used first to determine that the temperature in the center of the container reaches 121°C.

Ampules of heat-resistant spores should be used in subsequent test runs to determine the length of time necessary to achieve sterilization.

If you need assistance, contact the IUEHS Biosafety for your respective campus.