

Treatment of Infectious Waste Cultures with Sodium Hypochlorite Solution – Intended To Comply with EPA Infectious Waste Regulations

This “use of chemical treatment with sodium hypochlorite solution for cultures is intended for those cultures either with surface colonies or in suspension as the chemical must come in direct contact with the cultures to effectively treat the microorganisms.” [Ohio Administrative Code 3745-37-32 (E)]

EPA Infectious Waste is defined on the [EPA website](#) and in the [Ohio University Biosafety Manual](#).

The following procedures for treatment of cultures and recordkeeping must be followed in order to maintain compliance with EPA regulations.

Treatment of Infectious Waste Cultures with Sodium Hypochlorite Solution

- 1) This treatment option may only be used on cultures at BSL 1 or BSL 2 that are either surface colonies or colonies in suspension, which will allow the sodium hypochlorite solution to come into direct contact with the colonies.
- 2) The sodium hypochlorite solution must be mixed immediately prior to each use and contain 15% by volume household bleach in water. This solution results in a hypochlorite concentration of 0.45-0.79% or 4500-7900ppm.
- 3) The cultures must be submerged in the hypochlorite solution for at least 20 minutes.
- 4) The hypochlorite solution must be decanted from any culture that is put into the solid non-hazardous waste. The hypochlorite solution must be discarded after use either by pouring into the sanitary sewer or placing it (double-bagged) into the infectious waste boxes for commercial pick-up.
- 5) The laboratory must ensure that all cultures and hypochlorite solutions are appropriate labeled and handled. Household bleach is corrosive, irritating and toxic.
- 6) Records must be kept of all infectious waste cultures treatments. Either the amount of infectious waste culture treatment must be indicated on the laboratory's Institutional Biosafety Committee approved Review Form (contact the Biosafety Officer for details) or records must be kept in the laboratory. If keeping records in the laboratory, the records must include the date of treatment and the number of cultures treated. The attached tracking sheet may be used or laboratories may develop their own sheet, as long as that sheet includes the same information. These records must be maintained for three years after the latest treatment date recorded on the sheet.



