

# Toxins

**Safe working practices to minimize exposure via ingestion, inhalation, mucous membrane contact, and absorption or penetration through the skin.**

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## **BL2 Work Practices**

- ◆ Label toxin work areas within lab
- ◆ Cover work surface with plastic backed absorbent paper
- ◆ Avoid generating aerosols; handle the powdered form carefully
- ◆ Use a chemical fume hood or biosafety cabinet when feasible
- ◆ Avoid the use of needles or Pasteur pipettes
- ◆ Substitute plastic for glass wherever possible
- ◆ Decontaminate work surfaces with 25% household bleach or 0.25N sodium hydroxide
- ◆ Treat liquid waste with 50% household bleach or 0.25N NaOH (soak overnight). For T-2 mycotoxin use a combination of 50% household bleach and 0.25N sodium hydroxide. Please contact OEHS before use
- ◆ Collect and autoclave waste at the end of the day
- ◆ Autoclave or chemically disinfect contaminated protective clothing before reuse

## **Personal Hygiene**

- ◆ Keep your hands away from your face
- ◆ Do not eat, drink, or smoke in the lab
- ◆ Do not mouth pipette
- ◆ Always wash hand after removing protective clothing and before leaving the lab

## **Labels and Transport**

- ◆ Post BL2 biohazard sign at lab entry
- ◆ Restrict access to the lab
- ◆ Label equipment used with or storing toxins
- ◆ For transport, use sealed, unbreakable, leakproof containers with a biohazard label and full toxin name

## **Protective Clothing Requirements**

- ◆ Lab coat buttoned to the top with knit or grip cuffs, or use gloves that are long enough to cover the sleeves; a back-fastening gown is suitable; sleeve covers offer additional protection
- ◆ Gloves
- ◆ Face protection such as a face shield or safety glasses and a mask to cover the eyes, nose and mouth
- ◆ Dedicate protective clothing for work with toxins and do not wear outside the lab
- ◆ Avoid skin contact when removing gloves

## **Work with Powdered Form of Toxin**

- ◆ Carefully weigh and convert to aqueous form as soon as possible
- ◆ Store powdered form in an unbreakable secondary container labeled with the complete toxin name to identify the hazard
- ◆ Change gloves after handling powdered toxin being sure to avoid skin contact with the toxin while removing gloves; wash hands prior to donning new gloves
- ◆ Purchase toxin in aqueous form whenever feasible

## **Emergency Response**

- ◆ Flush skin or eyes with running water for 15 minutes, notify PI immediately, seek medical assistance
- ◆ Follow BL2 spill procedures: leave lab for 30 minutes, upon return, decontaminate spill with 25% household bleach or 0.25N NaOH solution for 30 minutes, collect and autoclave waste