



# Intermountain Forensics

SOP # ADM-110

Revision # 01

Forensic DNA Technical Leader Approval

Issue Date

05/08/20

## General Laboratory Safety

### 1. Purpose

To describe general laboratory safety practices

### 2. Summary

General laboratory safety practices are based on common sense and chemical safety. Refer to Material Data Safety Sheets (MSDS) before working with any chemical for the first time. Proper Personal Protective Equipment is required when working with an evidence and/or work product.

### 3. Procedure

#### Personal Responsibility

Each individual has the responsibility to plan and perform laboratory duties safely, using common sense and observing/mitigating potential safety hazards. Inform the laboratory director if hazards or potential hazards are not able to be easily addressed. Report any accidents or injuries to the laboratory director.

#### General Safety:

1. Proper Personal Protective Equipment (PPE) must be used when handling open evidence, work product, and chemicals and should be changed as needed. Proper PPE includes:
  - a. Laboratory Coat
  - b. Gloves
  - c. Face Mask (not required in post amplification room)
  - d. Legs and feet fully covered.
2. The laboratory provides a first aid kit (Admin Area), eye wash stations (at each sink), emergency shower (admin area), lab coats, gloves, face masks, and hand washing materials (soap, paper towels, etc). Purchase of any additional safety equipment is approved by the laboratory director.
3. All containers containing chemicals must be properly labeled to include:
  - a. Reagent Type
  - b. Expiration Date
  - c. (if applicable) hazardous materials shall be denoted as such
4. Before handling any chemicals, refer to the MSDS provided by the manufacturer and observe all relevant precautions.
  - a. MSDS documentation is stored electronically on the IMF shared server (Reference Documents Folder – MSDS Folder)
5. Clean up any spills immediately. Biological spills should include decontamination with 20% bleach.
6. Avoid chemical contact with skin and eyes. Wash appropriately if contact occurs.
7. Biological samples have the potential to transmit a variety of infectious agents. Care should be taken to avoid direct contact with the specimen being evaluated.
  - a. Note: DNA Extracts, amplification plates and load plates are not considered biological samples
  - b. Biological evidence should be treated as though they are infectious while processing
  - c. Note any liquid blood submitting for testing, repackage in waterproof container (Ziploc etc) if staff have concern of leaks or spill
8. Hands should be washed after handling any evidence or chemical.
9. Report any threatening communication received to the laboratory director.

#### Duty Specific Safety:



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1. Use caution when using reusable sharp instruments (scissors, single edge razor blades, scalpel, etc).
  - a. Sanitize reusable instruments immediately after use.
    - i. When necessary, dispose of used single edge razor blades in a sharps container.
  - b. Close and dispose of used sharps container when it becomes full.
    - i. Do not dispose of sharps or sharps containers in regular trash
  
2. **Never clean the EZ1 Advanced XL and components with bleach. Bleach in contact with salts from the buffers can produce toxic fumes.**
  - a. **EZ1 waste material is to be separated from general laboratory waste.**
    - i. **No bleach should be discarded in any waste container that contains EZ1 instrument reagents/consumables.**
  
3. Goggles or similar filters should be used for Alternate Light Source examinations. Never look directly into the light source.

## Evacuation Plan

In the event where evacuation is necessary:

1. Find the safest exit route and exit the building.
2. Notify emergency responders if necessary.
3. Proceed to meeting area (South West corner of parking lot)
4. Inform the Laboratory Director (or designee on site) once in meeting area

## 4. References

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<https://www.osha.gov/Publications/laboratory/OSHAfactsheet-laboratory-safety-osha-lab-standard.pdf>

## 5. Definitions

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Clarify any terms used within the document

**Evidence:** Physical evidence submitted

**MSDS:** Material Safety Data Sheet, a manufacturer provided document that describes the safety and handling information for a specific chemical.

**Work Product:** Any portion removed from the evidence that undergoes downstream processing including the resulting extracts, supernatant, supernatant test cards, quantification plates, amplification product, and load plates.