# Administrative Policy and Procedure for Safety and Hazardous Waste Disposal

**1.0 Purpose** - To ensure all members of the Forensic Biology Section are aware of the Safety and Hazardous Waste Disposal procedures.

**2.0 Scope** - This policy applies to all employees of the Forensic Biology Section.

**3.0 Policy**

**3.1** In accordance with the State Crime Laboratory Safety Manual, a hazardous waste determination has been performed in the Forensic Biology Section. The items requiring special handling are included in this procedure.

**3.2** Hazardous waste generated by the Forensic Biology Section includes Laboratory wastes (chemicals and solvents) as identified in the disposal guide retained in the Forensic Biology Section. As a hazardous waste generator, Section personnel assume a number of responsibilities. The purpose of this policy is to assist Section personnel with hazardous waste regulatory requirements ensuring that Federal and State requirements are satisfied. This policy is divided in separate categories for each type of Laboratory reagent based on the proper disposal for that reagent or group of reagents. By following this policy, Forensic Biology Section personnel should find it easier to manage day-to-day compliance with applicable hazardous waste regulations. Individuals with questions concerning waste disposal procedures should contact the Section Safety Officer or the State Crime Laboratory Safety Coordinator.

**4.0 Hazardous Waste Management Procedures**

**4.1** It is the responsibility of each Forensic Biology Section employee to dispose properly all chemicals and solutions used in the examination process.

**4.2** Laboratory sink drains shall not be used for the disposal of hazardous materials and other chemical waste, except as specifically identified in this guide.

**4.3** Every attempt shall be made to separate hazardous waste from bio-hazardous waste. If this is not possible, it is permissible to dispose of hazardous waste in biohazard waste containers.

**4.4** Concentrated acids and bases shall not be flushed down the Laboratory drain at any time unless previously neutralized. However, solutions which have a pH between 3 and 12, and do not contain any known hazardous or toxic materials or otherwise meet the definition of a characteristic waste, shall be disposed of by flushing down the Laboratory drain. Working solutions of acids shall be neutralized by the addition of dilute bases, such as sodium hydroxide, while working solutions of bases shall be neutralized by the addition of dilute acids, such as hydrochloric acid. The pH of a solution shall be determined using a calibrated pH meter or suitable litmus paper.

**4.5** Generally, empty bottles or containers are not considered hazardous waste. These containers shall be rinsed in the sink to remove any remaining residue, the labels removed or defaced, and the bottles disposed of in an appropriate trash container. Containerized liquids shall not be discarded in the general Laboratory trash.

**4.6** Empty containers of acutely hazardous material (e.g., cyanide), referred to as a P-listed material by the EPA, shall be triple-rinsed and the rinsate collected and disposed of as hazardous waste.

After the container has been triple rinsed and the labels removed or defaced, they shall be disposed of directly into an appropriate trash container.

**4.7** Empty bottles containing residues of flammable solvents (e.g., methanol), that are hazardous only on the basis of their flammable characteristic, shall be rinsed out and the rinsate discharged down the laboratory drain. This disposal is permitted only if, during the rinsing process, the flammable is diluted with sufficient water to eliminate the flammable characteristic prior to disposal.

**4.8** The contents of each waste container shall be clearly identified. The waste container shall be kept closed at all times, except when adding waste. Waste containers are to be filled to ¾ capacity to prevent the buildup of excessive vapor pressure and to allow adequate room for expansion. When the waste container is filled to ¾ capacity, it shall be taken to the Section's Hazardous Waste Storage Room by the employee.

**4.9** The appropriate personal protective equipment (e.g., gloves, chemical splash goggles) shall be used and skin contact shall be avoided when working with chemicals.

## 5.0 Safety Data Sheets (MSDS)

**5.1** Safety Data Sheets shall be maintained by the Section Safety Officer on all chemicals used in the Forensic Biology Section. The Section Safety Officer shall maintain these sheets in the Chemical Stock Room. SDS sheets are also located on the Forensic Biology Section shared folder.

**5.2** If there are any questions with a SDS or there is a need for additional personal protective equipment, contact the Section Safety Officer.

## 6.0 Chemical Spills

**6.1** Spill control kits shall be maintained by the Section Safety Officer in the Forensic Biology Section. In the event of a chemical spill the safety of the employee(s) is most important, therefore, it is VERY IMPORTANT that each person read and understand the hazards of each chemical that they are using.

## 7.0 Work-place Injury

**7.1** Injuries obtained while working shall be reported to the Section Safety Officer and the Forensic Scientist Manager.

## 8.0 References

State Crime Laboratory Safety Manual

Safety Data Sheets

## 9.0 Records

- Forensic Biology DNA Health and Environmental Safety Notice
- Forensic Biology Serology Health and Environmental Safety Notice

**10.0 Attachments** – N/A

| **Revision History** | | |
|---|---|---|
| Effective Date | Version Number | Reason |
| 09/17/2012 | 1 | Original Document |
| 03/22/2013 | 2 | 3.2 – Clarified the disposal guide is retained in the Section and not attached to this document |
| 12/28/2015 | 3 | Header – Added issuing authority; 5.1 – added additional location of SDS sheets; updated procedure for Safety Data Sheets instead of MSDS |
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