



## **POLICY FOR DISPOSAL OF HAZARDOUS CHEMICALS**

Proper disposal of hazardous chemical waste is essential for environmental protection and public safety. D.N.R. College took the following steps for the disposal procedures of various types of hazardous chemical waste:

### **1. Acids and Bases**

**Examples:** Hydrochloric acid, sulfuric acid, sodium hydroxide, potassium hydroxide.

- **Neutralization:** Acids are neutralized with a base (like sodium bicarbonate), and bases are be neutralized with an acid (like acetic acid). It is ensured that the resulting solution's pH is within the acceptable range (typically 5.5-9) for sewer disposal.
- **Labeling:** It is used to clearly label the container with the type of waste and the words “Hazardous Waste”.
- **Containment:** Appropriate containers are used.
- **Disposal:** Neutralization and sewer disposal are options.

### **2. Solvents**

**Examples:** Acetone, ethanol, methanol, toluene, xylene.

- **Segregation:** Separation is made for halogenated from non-halogenated solvents, as they require different disposal methods.
- **Labeling:** It is used to label containers with the type of solvent and “Hazardous Waste”.
- **Containment:** Solvent-resistant containers that are tightly sealed are used.
- **Disposal:** Waste in a designated area is stored and arranged for collection.

### 3. Heavy Metals

**Examples:** Lead, mercury, cadmium, chromium.

- **Segregation:** Heavy metal waste is separated and kept from other types of waste.
- **Labeling:** It is used to clearly label containers with the specific type of metal and “Hazardous Waste”.
- **Containment:** Containers that prevent leakage and resistant to corrosion are used.
- **Disposal:** Waste in a designated area is stored and arranged for collection.

### 4. Oxidizers

**Examples:** Potassium permanganate, sodium nitrate, hydrogen peroxide.

- **Segregation:** Oxidizers kept away from organic materials and other reactive chemicals.
- **Labeling:** It is used to clearly label containers with the type of oxidizer and “Hazardous Waste”.
- **Containment:** Containers compatible with oxidizers are used.
- **Disposal:** Stored in a cool, dry place and arranged for collection.

### 5. Organic Peroxides

**Examples:** Benzoyl peroxide, methyl ethyl ketone peroxide.

- **Temperature Control:** Organic peroxides are stored at low temperatures to prevent decomposition.
- **Segregation:** Flammables are kept away from combustible materials.
- **Labeling:** It is used to clearly label with the type of peroxide and “Hazardous Waste”.
- **Containment:** Containers resistant to the chemicals are used.
- **Disposal:** Arranged for collection for proper handling and disposal.

## General Guidelines:

- **Safety Precautions:** Implementation of wearing appropriate personal protective equipment (PPE) when handling hazardous waste.
- **Spill Kits:** Spill kits are accessible in areas where hazardous chemicals are used or stored.
- **Training:** It is ensured that personnel handling hazardous waste are properly trained in safety and disposal procedures.
- **Regulations:** Local, state, and central regulations regarding hazardous waste disposal are followed.

These procedures help ensure that hazardous waste is handled safely and in compliance with environmental regulations.

  
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