


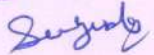
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Policy for Handling of Hazardous Chemicals


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Policy for Handling of Hazardous Chemicals

Hazardous chemicals are substances or mixtures that have the potential to cause harm to humans, animals, or the environment due to their physical, chemical, or toxicological properties. These chemicals may be flammable, explosive, corrosive, reactive, carcinogenic, mutagenic, or toxic to different degrees, and may pose various hazards such as fire, explosion, chemical burns, respiratory problems, and environmental pollution. Examples of hazardous chemicals include pesticides, solvents, acids, heavy metals, radioactive materials, and many others. It is essential to handle, use, store, and dispose of hazardous chemicals properly to minimize the risks to human health and the environment.

The hazardous chemical policy is crucial for protecting staff, students and the environment from the hazards associated with hazardous chemicals. It should be regularly reviewed and updated to reflect changes in regulations, technology, and best practices.

Chemical safety rules and standard operating procedures (SOPs)

Chemical safety rules and standard operating procedures (SOPs) are essential for preventing accidents, injuries, and environmental damage that can result from the handling, use, storage, and disposal of hazardous chemicals.

By understanding the different categories of chemical hazards, potential chemical hazards can be identified in the workplace and steps can be taken to prevent or mitigate them. Here are some general guidelines for developing and implementing chemical safety rules and SOPs:

1. Identify the hazardous chemicals used in the workplace and assess the risks associated with their handling, use, storage, and disposal.
2. Develop written chemical safety rules and SOPs that address the identified hazards and the steps needed to mitigate them.
3. Provide training to all employees who handle, use, store, or dispose of hazardous chemicals.
4. Ensure that employees understand the chemical safety rules and SOPs and follow them consistently.
5. Develop emergency response plans for chemical spills, releases, fires, and other incidents that may occur.
6. Ensure that all hazardous chemicals are properly labeled, stored, and secured to prevent unauthorized access and spills.
7. Provide personal protective equipment (PPE) and ensure that employees know how to use and maintain it properly.
8. Review and update the chemical safety rules and SOPs periodically to reflect changes in the workplace, new hazards, and regulatory requirements.

By following these guidelines, comprehensive chemical safety program can be established that promotes a safe and healthy workplace for everyone.

Standard Operating Procedures (SOPs) adopted by the college for Proper Physical Maintenance & Management of Chemical Laboratories:

The type and quantity of toxic and hazardous chemicals utilized, as well as the complexity of laboratory activities, determine the facilities required for chemical laboratories. To effectively handle the hazardous chemicals, college established comprehensive policies that prioritize safety, environmental protection and compliance with relevant regulations. Following measures are used by the college for the safety while handling hazardous chemicals:

Proper Ventilation: The practical laboratories are well and cross ventilated. Direct airflow from non-laboratory sections into the lab and outflow to the building's exterior is ideal.

Exits: Each chemical laboratory of the college have minimum two exits available.

Exhaust fans: Exhaust fans are installed to exhaust air contaminants in chemical laboratories

Fire Extinguishers: Each laboratory has fire extinguisher, according to requirement.

Storage of Chemicals: Each chemical laboratory has enough shelf and well-ventilated storage space for chemicals to be properly segregated. A separate liquid storage facility is also present in the laboratories. Separate and safe cabinet for acids are present.

Storage of Gas Cylinders: Gas cylinders are properly installed and stored in the wire cage. These are stored away from direct heat and flame sources. Proper procedure is followed to refill the empty cylinders.

First Aid Box: Every laboratory has a handy first aid kit for treating minor wounds and burns.

Proper Colour Coding: Water pipelines and gas pipelines are coloured as per standard norms.

Emergency Eye wash: Each chemical laboratory have eyewash bottles available in case of emergency.

Working Ethics and Waste disposal: Students are advised to keep their working tables clutter free with proper distancing between the students. Reagents on the stand are always well labelled. After any practical session, the working tables are cleaned properly and waste are properly disposed into the designated bins.

Personal Protective Equipment: Use of appropriate personal protective equipment is mandatory for the students while working in the labs. PPE include lab coats, gloves, goggles, covered shoes etc. Girl Students are advised to tie their hair properly while working.

General Safety Instructions for the Students in the Laboratories:

1. Always enter the Chemical Laboratory wearing a proper lab attire, including a lab coat, closed-toe shoes, and safety goggles.
2. Restrain loose clothing and lengthy hair. In the lab, you must always wear shoes.
3. Wearing cotton clothes must be preferred rather than synthetics.
4. Follow all instructions given by your teacher or lab supervisor.
5. Use chemicals and equipment only as instructed and authorized.

6. Avoid tasting or direct smelling chemicals.
7. Label all containers clearly with the appropriate name and date.
8. If chemicals are splashed in the eyes, immediately flush them with water for a considerable amount of time (15 minutes) and seek medical help and keep the person hydrated.
9. Utilize just those chemicals for which the ventilation system is suitable for its quality.
10. Avoid eating, drinking, smoking, and using cosmetics inside laboratory.
11. Before leaving the lab, carefully wash any exposed skin.
12. To prevent damage, handle and preserve laboratory glassware carefully. Use only intact glasses.
13. It is not permitted to play practical jokes or engage in any behaviour that could alarm, confuse, or distract another lab worker.
14. Avoid beginning a syphon or pipetting with mouth suction.
15. Maintain an organized, clutter-free workspace with all chemicals and tools appropriately labelled and stowed. When an operation is finished or at the conclusion of each day, clean up the work space.
16. Check gloves before each usage, wash them before removing them, and swap them out as needed.
17. Steer clear of doing any indoor solo work. If the processes being carried out in the lab are risky, never work by yourself there.
18. The grounding of all electrical connections is required. Service cords for electrical equipment should be in good shape. The repair of frayed cords or exposed wires must be done by professionals. Do not overload circuits.
19. Keep all organic solvents covered & away from open flames, heating devices, and electrical sparks.
20. Avoid lighting flammable vapours.
21. Do not mix chemicals without permission.
22. Do not use equipment that is unfamiliar to you without proper training.
23. Do not ignore safety warnings or precautions.
24. Do not remove any equipment or chemicals from the lab without permission.
25. Report any accidents or spills immediately to your teacher or lab supervisor.

Implementing and enforcing these policies will not only protect the campus community and the environment but also cultivate a culture of safety and responsible waste management within the college.