

RESOLUTION NO. 421

RESOLUTION ADOPTING A CHEMICAL HYGIENE PLAN.

WHEREAS, the Town of Mount Carmel is committed to providing a safe working environment and believes employees have a right to know about health hazards associated with their work; and

WHEREAS, the Occupational Safety and Health Administration (OSHA) requires the Town to adopt a policy for the purpose of establishing policies, procedures, and responsibilities to encourage an awareness of potential hazards in the workplace and to train laboratory employees in the development of appropriate, safe working conditions; and

WHEREAS, the Mount Carmel Safety Committee has recommended adopting the attached Chemical Hygiene Plan; and

WHEREAS, to the extent that any other Resolution or Ordinance presently existing is conflicting in any way with the provisions the Chemical Hygiene Plan, this Resolution supersedes any previously adopted policy; and

WHEREAS, the public health and welfare require it;

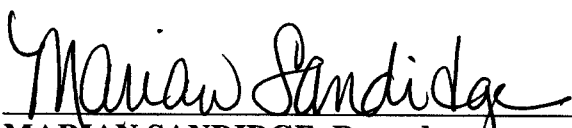
NOW, THEREFORE, BE IT RESOLVED that the attached, Exhibit A, the "Chemical Hygiene Plan" is adopted by the Board of Mayor and Aldermen of the Town of Mount Carmel;

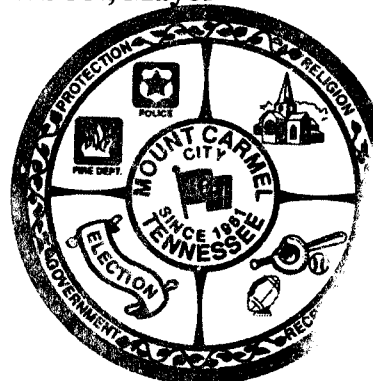
THIS Resolution shall become effective immediately, the public welfare demanding it.

A D O P T E D this the 27th day of January, 2009.

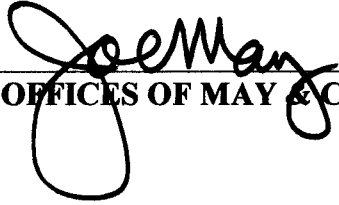

GARY W. LAWSON, Mayor

ATTEST:


MARIAN SANDIDGE, Recorder



APPROVED AS TO FORM:


LAW OFFICES OF MAY & COUP

FIRST READING	AYES	NAYS	OTHER
Alderman William Blakely	✓		
Alderman Richard Gabriel	✓		
Alderman Tresa Mawk	✓		
Alderman Kathy Roberts	✓		
Vice-Mayor Thomas Wheeler	✓		
Alderman Carl Wolfe	✓		
Mayor Gary Lawson	✓		
TOTALS	7	0	0

PASSED FIRST READING January 27, 2009

Town of Mount Carmel Chemical Hygiene Plan

Purpose

(29 CFR 1910.1450 9(E)) The development and implementation of a written Chemical Hygiene Plan (CHP) is the foundation of compliance required by the Occupational Safety and Health Administration (OSHA) as stated in the publication Occupational Exposure to Hazardous Chemicals in Laboratories (Federal Register, January 31, 1990, pages 3327-3335, part of CFR 1910). These rules have also been adopted by the Tennessee Occupational Safety and Health Administration (TOSHA). Additionally, The Town of Mount Carmel Wastewater Plant shall be subject to any rules on this subject adopted by TOSHA at a subsequent time.

This rule and standard applies to all persons, including Town of Mount Carmel employees, and visitors, authorized to be present in laboratories maintained by the Town of Mount Carmel Wastewater Plant. All persons subject to the CHP shall be informed of the locations of the CHP, the availability of Material Safety Data Sheets (MSDS), and other pertinent reference materials relating to their health and safety while in the laboratory at Wastewater Plant. Application of the CHP is in compliance with Town of Mount Carmel Policies on Safety and Health, Subject H, Laboratory Safety.

The CHP shall be reviewed and evaluated for its effectiveness annually by the Mount Carmel Wastewater Supervisor and Town Safety Director.

The Town of Mount Carmel is committed to providing a safe working environment and believes employees have a right to know about health hazards associated with their work. All employees have access to pertinent safety information through their supervisory staff. When safety concerns arise, employees are encouraged to contact their supervisor.

It is important that employees assume responsibility for laboratory safety. The people who work in a given laboratory are best able to detect potential hazards. So that employees can make knowledgeable decisions about the personal risks of employment, this Chemical Hygiene Plan includes policies, procedures, and responsibilities designed to encourage an awareness of potential hazards in the workplace and to train employees in the development of appropriate, safe working conditions. A training program has been designed for the benefit and protection of all laboratory employees.

Standard Operating Procedures

General precautions for handling all laboratory chemicals should include minimizing exposure because few laboratory chemicals are without hazard. Any mixture of hazardous chemicals is assumed to be more toxic than the most toxic component.

The following procedures are used when working with chemicals:

1. Accidents and spills: consult the MSDS file found at Mount Carmel Wastewater plant
 - Eye contact: promptly flush eyes with water for 15 minutes and seek medical attention. Medical attention should be obtained for body contact with hazardous chemicals. (Appendix A)
 - Ingestion: Consult the MSDS and/or the Poison Control Center (1-800-288-9999 or 1-800-222-1222). Each chemical affects the body differently. Medical attention should be obtained for body contact with hazardous chemicals. (Appendix B)
 - Skin contact: promptly flush the affected area with water and remove contaminated clothing. Use a safety shower if chemical contact is extensive. If symptoms persist after washing, seek medical attention. Medical attention should be obtained for body contact with hazardous chemicals.
 - Clean-up: promptly clean up spills, using appropriate protective apparel and equipment. Dispose of clean-up materials properly. If possible, clean-up should be performed by the licensed operator. In any situation where there is question as to how to handle a spill safely, contact the Safety Director at 423-817-2990 immediately and consult the appropriate MSDS (file found at the Town of Mount Carmel Wastewater Plant). In any situation where there are severe health hazards due to a chemical spill contact the Plant Supervisor and Safety Director at 423-817-2990, when necessary.
 - Medical attention should be obtained for body contact with hazardous chemicals.
2. Avoid unnecessary exposure to hazardous chemicals
 - Ensure that appropriate eye protection is worn by all persons, including visitors, in areas where chemicals are stored or used.
 - Wear appropriate gloves when the potential for contact with toxic chemicals exists. Inspect the gloves before each use, wash before removal, and replace as needed.
 - Use properly fitted respiratory equipment when air contaminant concentrations are not sufficiently restricted by fume hoods. Inspect the respirator before each use.
 - Do not smell or taste chemicals.
 - Use only those chemicals for which an adequate ventilation system is available. Apparatus that can discharge toxic chemicals (vacuum pumps, distillation columns, etc.) should be vented into local exhaust devices.
 - Never eat, drink, smoke, or apply cosmetics in areas where laboratory chemicals are present.

- Storing, handling, or consuming food or beverages in a laboratory or chemical storage area is prohibited. The use of laboratory glassware, utensils, or refrigerators for foodstuff that will be consumed is also prohibited.
 - Do not use mouth suction for pipetting or to start a siphon.
 - Use protective and emergency apparel and equipment when appropriate.
 - If contact lenses are worn in the laboratory, inform the supervisor so that special precautions can be taken in the event of eye injury.
 - Remove laboratory coats immediately upon contamination and dispose of properly.
 - Wash areas of exposed skin before leaving the laboratory.
3. Follow standard laboratory safety protocols
- All chemicals should be properly labeled and stored.
 - Keep all oxidizing agents stored at least 10' away from solvents. All chemicals should be stored in secure containers within enclosed cabinets, if possible.
 - Flammables and acids should be stored in authorized, appropriate storage cabinets.
 - Store flammable solvents and acids separately.
 - Keep all large quantity containers within appropriate storage cabinets. After removing the needed amount from a large container, return the container to the appropriate storage cabinet.
 - All chemicals should be monitored monthly to ensure effective status and continued safety measures. For example, picric acid crystals should be kept moist. Immediately request disposal of expired chemicals.
 - Keep the work area clean and uncluttered; clean up the work area on completion of an operation or at the end of each day.
 - Do not use damaged glassware. Handle and store laboratory glassware with care to avoid damage.
 - Dispose of broken or damaged glassware properly. Broken glassware may not be discarded in the regular trash.
 - Use a hood for operations that might result in the release of toxic chemical vapors or dust. Use a hood or other local ventilation device when working with any moderately volatile substance with a TLV of less than 50 ppm.
 - Keep materials stored in hood to a minimum; do not allow materials to block vents or air flow. Leave hood on if toxic substances are stored in it or if needed to augment laboratory ventilation.
 - Wear shoes at all times in the laboratory.
 - Confine long hair or loose clothing.
 - Horseplay, disorderly conduct, or use of abusive language in the laboratory is prohibited.
 - Seek information about hazards and plan appropriate protective procedures before beginning a new operation. Consult the MSDS or laboratory manual if in doubt about appropriate procedures for a specific chemical.
 - In the event of failure of a utility service leave lights on, place an appropriate sign on the door, and notify the Departmental Chemical Hygiene Officer.
 - If questionable hazardous conditions are found immediately notify supervisor or Safety Director at 423-817-2990 before attempting to remedy the problem.
 - Properly label all chemicals before disposal including a list of all chemicals in each container. Do not mix questionable agents.
 - A current Material Safety Data Sheet (MSDS) manual is maintained in Town of Mount Carmel Wastewater Plant. Review the appropriate MSDS in regard to any question concerning how to handle, store, or dispose of a specific chemical.
 - Be aware of unsafe conditions and see that they are corrected.
 - No unauthorized persons, children or pets are allowed in laboratories.

Housekeeping

Floors are to be cleaned regularly by Mount Carmel Wastewater Plant employees. All employees of the housekeeping department are trained in the risks associated with working in the laboratory. Information concerning specific risks in the laboratory will be relayed by the Supervisor or the Safety Director. He is responsible for conveying this information to the Wastewater employees.

The housekeeping supervisor conducts a quarterly inspection to access if:

1. Trash is deposited in appropriate receptacles and properly removed from the laboratory. Broken glass must be placed in a separate labeled receptacle.
2. Chemical spills are promptly reported to the Safety Director and Wastewater Supervisor.
3. Proper storage is maintained to minimize clutter.
4. Housekeeping personnel are not to clean counter tops. It is the responsibility of the assigned technical personnel to clean all counter tops and upper surfaces in the laboratory area.
5. Housekeeping personnel are not to clean up any type of spill until approval and instructions are obtained from the assigned technical staff. If technical personnel are not available, contact the Safety Director for instructions.

Chemical Inventory

A chemical inventory is performed annually, listing all the hazardous chemicals in the laboratory. Chemicals listed are those classified as hazardous by the Department of Transportation (DOT), the Environmental Protection Agency (EPA), or displaying a 2 or greater in any section of the National Fire Protection Association (NFPA) diamond.

Chemicals are listed alphabetically along with the average quantity. The NFPA hazard classification, if known, is listed as well as the manufacturer's name and address. A chemical inventory form is provided as Appendix C.

When chemical inventories are kept current it serves the purpose of keeping tighter control over chemicals within laboratory areas, prevents excessive stock-piling of chemicals, thereby reducing the hazards involved, as well as saving money by purchasing only needed chemicals.

Material Safety Data Sheets

A departmental MSDS file is provided at Mount Carmel City Hall. The MSDS sheets are kept in alphabetical order. Each Department Head is responsible for updating the MSDS file as new materials are purchased. One central copy of all departments MSDS sheets are to be on file at City Hall. It is the responsibility of each department head to provide copies of their MSDS sheets to the Secretary of the Safety Committee to be filed at City Hall.

When a new chemical is introduced into the laboratory, immediately notify the Safety Director so that proper training can be completed prior to the use of the chemical. In most cases this will only involve the review of the MSDS to determine the proper handling of the chemical. At this time the Safety Director will determine if any special protective devices or procedures are required.

Chemical Storage

Chemical storage areas should be minimized. Storage on bench tops and hoods is not desirable. Ventilated cabinets and designated refrigerators are used for chemical storage only. No food is permitted in refrigerators where chemicals are stored.

Highly toxic chemicals, including carcinogens, are stored in ventilated storage areas in unbreakable chemical resistant secondary containers. The containers should be labeled: "Caution: High Chronic Toxicity or Cancer Suspect Agent". A separate inventory list of carcinogens and suspected carcinogens is maintained by the Chemical Hygiene Officer in order to comply with federal and state regulations.

Cylinders of compressed gases will be strapped or chained to a wall or bench top and are capped when not in use.

Labeling

The 29 CFR 1910. 1450 contains specific labeling requirements. Labeling must be done on all hazardous chemicals that are used in the workplace. Labels must not be removed or defaced.

Each hazardous chemical used in the laboratory that is not in its original container must be labeled. These labels must contain the following information:

1. Chemical name
2. Health hazard
3. Physical hazard

Engineering Controls

- All biohazard hoods and fume hoods are inspected annually. Any hood not passing inspection is taken out of service immediately and not used until the hood has passed inspection. It is the responsibility of the employer to purchase the parts and replace the unit in a timely fashion so that the risk to employees is minimized.
- Eyewash fountains are inspected every three months.
- Safety showers are inspected, tested, and flushed annually and records are maintained.
- Fire extinguishers are inspected monthly by the Fire Department.
- There is a ventilated flammable chemical storage cabinet and a refrigerator for storing flammables located at the Wastewater Treatment Plant.
- Ventilated storage cabinets with exhaust ducting are located in the warehouse at Wastewater Plant.

Contaminated Waste Removal and Disposal

To assure that minimum harm to people and the environment will result from the disposal of waste laboratory chemicals a waste disposal program specifies how waste is to be collected, stored and transported.

Administrative Controls

The Mount Carmel Wastewater Supervisor is responsible for the safe operation of the laboratories. All activities and procedures require approval by the Safety Director before implementation. All spills are contained according to OSHA guidelines, and appropriate spill kits used. Assessment of significant risk of all operations is made by the Wastewater Treatment Plant Manager or the person responsible for the Chemical Hygiene Plan. Chemical Hygiene and safety policies will be established for each task performed and engineering controls for personal protective equipment assigned.

Record Keeping

Records of environmental monitoring, medical consultations and examinations (including tests and written opinions) for each employee are required.

- Accident investigations: records written and retained by the Town of Mount Carmel at City Hall.
- Chemical inventory: records written and retained by the Mount Carmel Wastewater Treatment Plant.
- Environmental monitoring: records written and maintained by the department Chemical Hygiene Officer.
- Medical consultation: records maintained by the City Recorder and a copy placed in the employee's personnel file.
- Training: records maintained by the Supervisor and an annual report is provided to Safety Director

All records are kept, transferred, and made available in accordance with 29 CFR 1910.20.

Personal Protective Equipment

Eye protection meeting ANSI Standard Z. 87 is required in all laboratories when hazardous chemicals are in use. Employees are required to wear impervious gloves when there is a potential exposure to blood, hazardous chemicals, or infectious materials. In areas where chemicals splashes are likely, an impervious apron appropriate for the task is required.

Training

Training is a necessary and important part of the Chemical Hygiene Plan. All employees are trained at the time of the employee's initial assignment to a work in an area where hazardous chemicals are present. Additional training is required if new assignments involve exposure to different risks. All training is documented in writing by attendance records.

Before training can begin, a lesson plan should be developed that outlines the expectations of the program. The lesson plan should include:

Objectives. Upon completion of the Chemical Hygiene Training Program the employee will be able to:

- A. Locate the potentially hazardous chemicals in the workplace.
- B. Recognize the chemical labeling and its meaning.
- C. Locate the MSDS in the workplace.
- D. Locate the health hazard, physical hazard, environmental protection, and special protection sections of the MSDS and explain their use.
- E. Identify the person responsible for the Chemical Hygiene Plan by name and title.
- F. Discuss the major components of the facilities standard labeling system.
- G. Identify the appropriate protective clothing for the area and demonstrate its use.
- H. Demonstrate emergency procedures in the event of a hazardous chemical spill.
- I. Describe the environmental monitoring protocol.

Activity Plan.

- A. Audiovisuals that will be used
- B. An outline of topics to be discussed with approximate time limits.
- C. Topics to be covered
 - 1. Content of lab standard
 - 2. Location of CHP
 - 3. Identification of chemical hazards
 - a. Location of a chemical
 - b. Location of MSDS
 - c. Labeling information
 - 4. Procedures for handling hazardous chemicals
 - a. Work practices
 - b. Proper moving storing, and use
 - c. PEL for specific chemicals used by the employee
 - d. Visual appearance of chemicals used
 - e. Environmental monitoring requirements
 - f. Signs and symptoms of exposure
 - g. Protective equipment used to prevent overexposure
 - h. Conditions to avoid
 - 5. Environmental protection

- a. Emergency procedures
- b. Spill containment
- c. Medical consultation procedures

Summary.

- A. Restate the objectives
- B. Restate the main points
- C. Answer questions

MEDICAL CONSULTATIONS AND EXAMINATIONS

All employees needing medical attention must use the Town of Mount Carmel Worker's Compensation procedures defined by the Town of Mount Carmel.

The employee is sent for medical evaluation under these circumstances:

- 1. There are signs and/or symptoms associated with exposure to a hazardous chemical.
- 2. Environmental monitoring reveals an exposure level above the action level.
- 3. An event, such as a spill, leak, or explosion, results in a hazardous chemical exposure.

The laboratory provides the following information to the examining physician:

- 1. Identity of the hazardous chemical (s) to which the employee has been exposed.
- 2. A description of the conditions under which the exposure occurred, including quantitative exposure data if available.
- 3. A description of the signs and/or symptoms of exposure.
- 4. A copy of the MSDS for the chemical(s) involved.

Employees may contact the Safety Director 423-817-2990 to request information about filing appropriate claims for compensation pursuant to the guidelines set forth by the Tennessee Claims Commission.

CHEMICAL HYGIENE PLAN RESPONSIBILITIES

Safety responsibilities for a specific laboratory rest with the faculty or staff member designated by the Safety Director. The designated person must:

- Work with administrators and other employees to develop and implement appropriate chemical hygiene policies and practices.
- Monitor the procurement, use, and disposal of chemicals in the laboratory.
- See that appropriate audits are maintained.
- Help project directors develop precautions and adequate facilities.
- Know the current legal requirements concerning regulated substances.
- Seek ways to improve the chemical hygiene plan.
- Certify the performance of protective equipment.

The immediate supervisor has the overall responsibility to:

- Ensure that workers
 - 1. Understand and follow the chemical hygiene rules.
 - 2. Have working protective equipment available.
 - 3. Are provided with adequate training.
- Provide regular chemical hygiene and housekeeping inspections including routine inspections of emergency equipment.
- Know the current legal requirements concerning regulated chemicals.

Determine the need for protective equipment.

The laboratory employee is responsible for:

- Planning and conducting each laboratory operation in accordance with the institutional chemical hygiene procedures.
- Developing good personal chemical hygiene habits.

ADDITIONAL SAFETY REQUIREMENTS OTHER THAN FOR HAZARDOUS CHEMICALS

- Dispose of glass and sharp objects in designated disposal containers.
- Non-contaminated waste is to be disposed of in regular trash.
- Never obstruct exits, fire extinguishers, fire hoses, gas valves, etc.
- Make sure that all equipment is properly grounded and that the wiring of all equipment is in good condition. If cracks in insulation or exposure of the wiring is noticed, immediately unplug the equipment and notify your supervisor.
- In the case of exhaust failure, immediately notify your supervisor. If personnel are in danger of contamination by toxic or infectious agents, immediately remove all personnel from the area, closing off the area until the problem has been properly resolved.
- Chemical storage cabinets are to be placed at least six (6) feet away from laboratory exits.

Plan Reviewed

Date

Signature

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How to Flush Chemicals From the Eyes

by eHow Health Editor



Introduction

If you work around chemicals, you should know how to flush them from your eyes. Removing the chemicals within the first 15 or so seconds is critical to protecting your eyes from serious damage. Learn the procedures and keep a cool head while following them.

Instructions

Difficulty: Moderate

Steps

1 Step One

Find your way to a sink, and run lukewarm tap water over the affected eye. Hold your eyelids open while flushing. Rinse around the eye and under both the upper and lower eyelids.

2 Step Two

Flush the eye or eyes for a minimum of 20 minutes. Wash your hands thoroughly once flushing is complete, to remove any chemicals that might still be on your hands.

3 Step Three

Contact your health care provider for further instruction, even if your eye appears to be fine after flushing. If the eye bothers you, have someone drive you to the emergency room.

Tips & Warnings

Learn the location of the eyewash station closest to your work area, and remember that you may have to find it with your eyes closed. Eye wash stations are designed to flush the eye with a flow of water at low pressure.

Notify your supervisor of the incident after flushing your eye.

Wear safety goggles whenever you work with chemicals.

Member Comments

Find this article at: http://www.ehow.com/how_4486691_flush-chemicals-from-eyes.html



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How to Help a Person Who Has Ingested Poison

by eHow Health Editor

Introduction

The most commonly ingested poisons are drugs (including alcohol), plants and contaminated food. Treatment for ingested poison involves diluting the poison and getting it out of the stomach before it is absorbed into the system.

Instructions

Difficulty: Moderately Easy

Steps

1 Step One

Identify the source of the poison: Was it a petroleum or corrosive chemical product (camping stove fuel, bleach)? Was it a plant, food or drug?

2 Step Two

Induce vomiting immediately if the following conditions are true: The poisoned person is fully conscious and coherent; you determine that the poison was not from a petroleum or corrosive chemical product. Vomiting may be induced by having the person drink a mixture of 2 tbsp. of syrup of ipecac with a half liter of water.

3 Step Three

Administer another dose of syrup of ipecac and water after 20 minutes if the person had not yet vomited.

4 Step Four

Mix 5 tbsp. of activated charcoal with a small amount of water after the vomiting has ceased. This mixture will absorb what is left in the stomach.

5 Step Five

Drink copious amounts of water after vomiting to dilute the poison.

6 Step Six

Save a sample of the ingested substance for identification.

7 Step Seven

Evacuate to a hospital immediately.

Tips & Warnings

If syrup of ipecac is unavailable, vomiting can be induced using one of the following methods: drink 2 tbsp. of mild soap or 1 tbsp. of dried mustard mixed with a half liter of water; tickle the back of the throat.

Do not induce vomiting if you suspect the person has ingested a petroleum or corrosive chemical product. Vomiting may further damage the esophagus and lungs as the poison comes back up.

Do not induce vomiting if the person is unconscious, disoriented, or having seizures. The vomit may obstruct the airway.

If an unconscious poison victim begins to vomit, turn her on one side to keep the airway open.

This information is not intended as a substitute for professional medical advice or treatment.

CHEMICAL INVENTORY	
Page ____ of ____	Date of inventory _____

PI: _____	Phone _____
Emergency contact(s): _____	

Department/lab. Room _____	
Lab. Personel: _____	Home phone _____
_____	Home phone _____
_____	Home phone _____
_____	Home phone _____

*******HELPFUL INFORMATION*******

1. Web sites where you can get MSDS and chemicals information:

-<http://www.msdsonline.com>

2. MSDS can also be obtained from the distributor calling customer service, it is the law, manufacturers have to provide you free of cost an MSDS sheet for every chemical and reagent you buy. Every time you order a new chemical you should request the MSDS on your Purchase Order specifying that it be sent directly to your mailing address.

3. While you go through the inventory make sure all chemicals are properly labeled and stored.

4. The inventory must contain all chemicals in your lab., hazardous or not.

5. The NFPA rating is the National Fire Protection Association rating number. This number is found in the MSDS most of the time. There is also available a copy of the National Fire Protection Association standards with the most used NFPA ratings in the Biosafety Office (5A136).

6. Everytime you add a new chemical to your inventory you have to update this list and send an updated list to the Safety Director.

7. When you print the list to post on your door, please do it on bright yellow paper. We want it to stand out, you can find yellow bright paper in the administration office or the biosafety office. Also, you should know that only the chemical inventory list and the hazardous and safety decals should be posted on the outside of your door. If you have posters, pictures, articles or any other kind of displays please be kind enough to take them down and comply with the regulations.