

Approved 10/30/95

City of Lincoln Hazard Communication Policy

PURPOSE

The purpose of this policy is to ensure that hazardous chemicals are identified and that information regarding these chemicals are transmitted to all employees. This transmittal of information is to be accomplished by a written hazard communication program, to include container labeling or other forms of warning, Material Safety Data Sheets (MSDS), and employee training.

INTRODUCTION

The Federal Hazard Communication Standard CFR 1910.1200 deals with hazardous chemicals that are used in the work place.

This standard requires employers to inform all employees as to the safe use of hazardous chemicals on the job. This applies to all work operations of the City of Lincoln where employees may be exposed to hazardous substances under normal working conditions.

HAZARD DETERMINATION

In determining if a chemical product is hazardous, the City of Lincoln will rely upon information provided by chemical manufacturers, using the following sources, as set out by the above federal standard:

1. 29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.
2. *Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment*, American Conference of Governmental Industrial Hygienists (ACGIH), latest edition.
3. National Toxicology Programs (NTP), *Annual Report on Carcinogens*, latest edition.
4. International Agency for Research on Cancer (IARC) *Monographs*, latest edition.
5. *The Registry of Toxic Effects of Chemical Substances*, published by the National Institute for Occupational Safety and Health indicates whether a chemical has been found by NTP or IARC to be a potential carcinogen.

RESPONSIBILITY

Department Heads Have the Responsibility to:

- I. Implement the hazard communication policy by:
 - A. Directing all supervisors to identify which workplace materials are hazardous, and to identify employees this may affect.
 - B. Providing all employees with information, training, and the equipment they need to protect themselves and others.
 - C. Ensure that all necessary equipment is available to comply with this policy.
- II. Enforce compliance with this policy. All employees, presently employed and new employees, who work with or have the potential to work with hazardous materials, must be trained and responsible for the purpose and the use of this hazard communication policy.

Supervisors Have the Responsibility to:

- I. Determine which workplace materials are hazardous and provide employees with the information, training, and equipment they need to protect themselves and others.
- II. Inform employees about the hazard communication policy and how its requirements are applied in their workplace.
- III. Train employees annually in how to recognize, understand, and use labels and MSDS.
- IV. Enforce compliance with this policy.

Employees Have the Responsibility to:

- I. Understand their assigned tasks relating to hazard communication.
- II. Comply with the directives of this policy.
- III. Advise supervisors as to the need for a MSDS when missing.

IV. Wear personal protective equipment as required.

Health Has the Responsibility to:

I. Assist any department upon request, with the identification of hazardous chemicals, routes of entry, symptoms of exposure and alternate less toxic chemicals, for use in the workplace.

Fire Has the Responsibility to:

I. Respond to all significant hazardous materials spills within the City of Lincoln and contain or control the hazard.

Purchasing Has the Responsibility to:

I. Send one MSDS to each affected division/section, with every new or updated hazardous chemical purchased.

II. Request up to date MSDS from manufacturers or distributors.

Risk Management Has the Responsibility to:

I. Train appropriate supervisors and assist in the training of employees in the City's hazard communication policy.

II. Audit each department's compliance with this policy on an annual basis.

WRITTEN HAZARD COMMUNICATION PROGRAM

The City of Lincoln relays upon the cooperation of each department/division/section in order to complete the following:

1. Identify hazardous chemicals in the workplace.
2. Provide a labeling system for all containers.
3. Obtain MSDS materials and keep them in an area readily accessible.
4. Provide annual employee information and training to all exposed employees.

In order to comply with this plan, each department/division/section is responsible for:

1. Implementing an inventory of on-site chemicals that identifies each product by manufacturer and product name.
2. Material Safety Data Sheets (MSDS) must be collected for all products containing more than one percent of a hazardous chemical. These sheets must be accessible to employees, contractors, and medical personnel.
3. A procedure must be developed for inspecting, creating, and maintaining container labels.
4. All employees must be trained regarding the possible chemical hazards specific to their work site. This training should also include procedures for the safe handling of chemicals and protective equipment that should be worn to limit exposure in the event of a spill or release.
5. A named supervisor or designated employees in every department/division/section is responsible for the implementation of this program.

The Chemical Inventory

A chemical inventory of **hazardous chemicals** shall be assembled at each facility. The chemical inventory shall include the manufacturer's name, product name and hazard classification.

- I. Make a list of all the hazardous chemicals in the work place.
- II. Update the list of hazardous chemicals whenever a new one is introduced in the work place.
- III. Allow employees to review the list of hazardous chemicals during their work shift, posting this in a conspicuous location at the worksite.

Material Safety Data Sheets

Chemical manufacturers are required to provide clear and suitable labels on their products and automatically send information that will summarize all hazardous characteristics with their shipment. These summaries are called "Material Safety Data Sheets" or "MSDS".

If a product is purchased containing more than one percent of a hazardous chemical, an MSDS should accompany the shipment of the product. If an MSDS is not attached, a system to ensure that the appropriate MSDS is received should be put in place.

- I. Obtain a material safety data sheet (MSDS) for every hazardous chemical used, stored, or released. After obtaining the MSDS, the data sheet should be checked to determine whether all necessary items are included. The MSDS can be in any format as long as it has the below information:
 - A. Product or chemical identity used on the label.
 - B. Manufacturer's name and address.
 - C. Chemical and common names of each hazardous ingredient (including CAS numbers).
 - D. The hazardous chemical's physical and chemical characteristics, such as vapor pressure and flash point.
 - E. Physical hazards, including the potential for fire, explosion, and reactivity.
 - F. Known health hazards (including signs and symptoms of exposure or any medical conditions aggravated).
 - G. Precautions for safe handling and use.
 - H. Name, address, and phone number for hazard and emergency information.
 - I. Emergency and first aid procedures.
 - J. Whether OSHA, NTP, or IARC lists the ingredient as a carcinogen.
 - K. OSHA Permissible Exposure Limit (PEL), ACGIH Threshold Limit Value (TLV), or other exposure limits.
 - L. Control measures such as engineering controls, work practices, hygienic practices or personal protective equipment required.
 - M. Primary route(s) of entry.

N. Procedures for spills, leaks, and clean-up.

O. Preparation or revision date of the MSDS.

P. Trade Secrets:

The chemical manufacturer, importer or employer may withhold the specific chemical identity from the MSDS provided that (1) the claim that the product is a trade secret can be supported, (2) information concerning the chemical properties and effects are disclosed on an MSDS, (3) that the MSDS indicates information being withheld is a trade secret, and (4) that the specific chemical identity is made available to health professionals, employees and designated representatives when a medical emergency exists. For non-emergencies, an employer, manufacturer, importer, employee or health professional providing other occupational monitoring or health services to exposed employees may also obtain the specific chemical identity, if an appropriate request is forwarded to the manufacturer.

II. The MSDS file must be accessible to employees, their designated representatives, emergency personnel such as fire departments, and to appropriate government agencies.

III. Obtain missing MSDS, or MSDS for any new products, if one is not sent from the manufacturer with the order. If the MSDS does not give adequate information, contact the supplier for a more complete MSDS or send the product back and refuse to use that vendor unless an adequate MSDS can be obtained.

IV. Keep the MSDS file up to date.

V. Provide information from the MSDS to anyone who receives a hazardous chemical from the work place (includes private contractors).

VI. Organize the MSDS file in a way that industrial chemicals can be found quickly (e.g. alphabetical order, by chemical name, or type of product).

Labels and Other Forms of Warning

I. Ensure all hazardous chemical containers in the work place are properly labeled, tagged or marked with the chemical identity and the appropriate hazard warning.

A. Existing labels on incoming containers shall not be removed or defaced.

- B. If existing labels on incoming containers received from suppliers already convey the required information, new labels need not be affixed.
 - C. Containers which are intended only for immediate use to transfer a hazardous substance from a labeled container need not be labeled provided that such container, upon completion of the transfer, shall remain empty and devoid of any hazardous residue.
- II. Inspect manufacturer labels to ensure they are legible and in good shape.
 - III. Ensure the name used on the container label matches the name on the MSDS for that substance as well as the name on the inventory of hazardous chemicals.
 - IV. Check hazardous chemical containers that are received (or leave the work place) to ensure that they contain the chemical identity, appropriate hazard warning, and the name and address of the manufacturer of the chemical.
 - V. Understand the labeling system.
 - A. Should labels need to be applied, the NFPA, or National Fire Protection Association color-coded system shall be used to label hazardous materials. These labels use colored triangles to indicate the type of hazard. For example, red means a fire hazard, yellow means a reactivity hazard and blue means a health hazard. The white area of the label is used to provide additional information.
 - B. The colored triangles on the label contain numbers that indicate the degree of hazard. The numbers range from 0 to 4, or low to high, to classify hazardous materials.
 - C. The white area on the label is used to contain information that tells just how much of a hazard the chemical really is. Some labels include letters or symbols that provide warnings or tell about the specific health hazard the chemical may cause. The information in the white area may tell which organs of the body may be affected by that chemical or what personal protective gear should be worn in handling the chemical.

Employee Information and Training

The most important component for a successful hazard communication program is the training for all employees who use hazardous chemicals. To better understand the hazard communication standard, employees must receive the following information:

- I. Provide employee training about hazardous chemicals used in work areas. New or transferred employees must receive this training prior to working with the hazardous chemicals in the work area.
- II. Provide employee training whenever a new hazardous chemical is introduced in the work area.
- III. Tell all employees about the requirements of the law, the content of the hazard communication plan and the place where they can review this written Hazard Communication Program.
- IV. Tell all employees where they can locate the hazardous chemicals and the operations where they are used.
- V. Tell employees where they can find the MSDS sheets.
- VI. Include these specific items in training:
 - A. The methods used to detect hazardous chemicals in the work area, such as monitoring equipment, visual appearance, or odor.
 - B. The physical and health hazards of the chemicals used in the work area.
 - C. The ways employees can protect themselves when using hazardous chemicals. Teach employees to use good work practices, what to do in an emergency, and show how to use proper protective clothing and equipment.
 - D. Personal protective equipment required for each chemical should be identified, based upon the MSDS and the work process.
- VII. Keep records in the form of a summary or outline, of the topics covered in the training.

OTHER INFORMATION

Informing Contractors

It is the responsibility of the individual who hires or uses contractors, contract employees, or consultants to provide the following information to those who will be, or have their employees, directly exposed to hazardous chemicals while on-site:

- A. Identity of hazardous chemicals to which they may be exposed while on the job site.
- B. Precautions they may take to lessen the possibility of exposure by the use of appropriate protective measures.
- C. Location of the MSDS's for all chemicals they may be exposed to.

It is the contractors responsibility to inform his/her own employees about these hazards and precautions.

Area management responsible for engaging any contractor or contract employee will obtain from the contractor a list of hazardous chemicals that the contractor intends to bring onto City property. This list will be made available to all employees who may be exposed to those chemicals.

DEFINITIONS APPLICABLE TO THIS PROCEDURE

ACGIH American Conference of Governmental Industrial Hygienists. An organization of professional personnel in governmental agencies or educational institutions engaged in occupational safety and health programs. ACGIH develops and publishes recommended occupational exposure limits for hundreds of chemical substances and physical agents.

Carcinogen A chemical is considered to be a carcinogen if it has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or it is listed as a carcinogen or potential carcinogen in the *Annual Report on Carcinogens* published by the National Toxicology Program (NTP).

CAS Chemical Abstracts Service; a Columbus, Ohio organization which indexes information published in "Chemical Abstracts" by the American Chemical Society and provides index guides by which information about particular substances may be located in the "Abstracts" when needed.

CAS Number An identification number assigned by the Chemical Abstracts Service (CAS) of the American Chemical Society. The CAS Number is used in various databases, including Chemical Abstracts, for identification and information retrieval.

Flash Point The temperature at which a liquid will give off enough flammable vapor to

ignite. There are several flash point test methods, and flash points may vary for the same material depending on the method used, so the test method is indicated when the flash point is given.

Hazardous Material In a broad sense, a hazardous material is any substance or mixture of substances having properties capable of producing adverse effects on the health or safety of a human being. In 1971 the Occupational Safety and Health Administration (OSHA) adopted the following definition in regulations affecting employers in operations subject to the federal Longshoremen's and Harbor Worker's Compensation Act:

- Has a flash point below 140 degrees Fahrenheit, closed cup, or is subject to spontaneous heating.

- Has a threshold limit value below 500 ppm for gases and vapors, below 500 mg/m³ for fumes, and below 25mppcf for dusts.

- A single dose oral LD50 below 500 mg/kg.

- Is subject to polymerization with the release of large amounts of energy.

- Causes first degree burns to skin in short time exposure, or is systemically toxic by skin contact.

- In the course of normal operations, may produce dusts, gases, fumes, vapors, mists, or smokes which have one or more of the above "characteristics".

Label Any written, printed, or graphic material, displayed on or affixed to containers of hazardous chemicals.

MSDS Material Safety Data Sheet; written or printed material concerning a hazardous chemical.

NFPA National Fire Protection Association; an international voluntary membership organization to promote/improve fire protection and prevention and establish safeguards against loss of life and property by fire.

NFPA 704M The NFPA code for showing hazards of materials using a triangle shaped label or placard with appropriate numbers or symbols. The explanation below illustrates

the NFPA code using scales of 0 to 4 (low to high) to classify material hazards:

Fire Hazard (Red)

- 0 - Will not burn
- 1 - Will ignite if preheated
- 2 - Will ignite if moderately heated
- 3 - Will ignite at most ambient conditions
- 4 - Burns readily at ambient conditions

Reactivity (Yellow)

- 0 - Stable and not reactive with water
- 1 - Unstable if heated
- 2 - Violent chemical change
- 3 - Shock and heat may detonate
- 4 - May detonate

Health Hazard (Blue)

- 0 - Ordinary combustible hazards in a fire
- 1 - Slightly hazardous
- 2 - Hazardous

- 3 - Extreme danger
- 4 - Deadly

Specific hazards that might be listed are:

- Oxidizer
- Acid
- Alkali
- Corrosive
- Use No Water
- Radiation Hazard

Oxidizing A chemical or substance which brings about an oxidation reaction. The agent Agent
may :

1. Provide the oxygen to the substance being oxidized (in which case the agent has to be oxygen or contain oxygen).
2. It may receive electrons being transferred from the substance undergoing oxidation.

PEL Permissible Exposure Limit; an exposure limit established by OSHA regulatory authority. May be a time weighted average (TWA) limit or a maximum concentration exposure limit.

PPM Parts per million; a unit for measuring the concentration of a gas or vapor in air

parts (by volume) of the gas or vapor in a million parts of air. Also used to indicate the concentration of a particular substance in a liquid or solid.

Reactivity A description of the tendency of a substance to undergo chemical reaction with the release of energy.

TLV Threshold Limit Value; a term used by ACGIH to express the airborne concentration of a material to which nearly all persons can be exposed day after day, without adverse effects. ACGIH expresses TLV's in three ways:

TLV-TWA The allowable Time Weighted Average concentration for a normal 8-hour workday or 40-hour work week.

TLV-STEL The Short Term Exposure Limit or maximum or concentration for a continuous 15 minute exposure period (maximum of four such periods per day, with at least 60 minutes between exposure periods, and provided that the daily TLV-TWA is not exceeded).

TLV-C The Ceiling exposure limit, the concentration that should not be exceeded even instantaneously.

Toxic Chemical which causes death even in very small doses. For the most toxic substances, if even less than 10 milligrams (less than 1/8 teaspoon) per kilogram (a little over two pounds) of body weight is ingested would be fatal.

Questions concerning this policy will be addressed by:

**Risk Management
233 South 10th Street
Lincoln, NE 68508
441-7671**



Hazard Communication Compliance Checklist

- ___ 1. Identify a person who will be responsible for handling the Hazard Communication Program in your department/division/section..
- ___ 2. Make a list of all the hazardous chemicals used in your work place and the operations where they are used.
- ___ 3. Label all hazardous chemical containers in your work place with the chemical identity and the appropriate hazard warning.
- ___ 4. Obtain the manufacturer's material safety data sheets for the hazardous chemicals used in, stored at, or released from the work place.
- ___ 5. Make the material safety data sheets accessible to all employees during their work shifts.
- ___ 6. Update the MSDS file whenever a new product is brought into the work place or whenever the hazardous ingredients of a chemical mixture are changed.
- ___ 7. If the city is supplying chemicals to a third party, send the MSDS "down line".
- ___ 8. Inform all employees of the contents of the Hazard Communication Standard.

- _____ 9. Conduct annual employee training about the hazardous chemicals used in the workplace.
- _____ 10. Conduct employee training for any new chemical brought into the work place.
- _____ 11. Conduct employee training for all hazardous chemicals for any new employee(s).
- _____ 12. Conduct employee training for non-routine tasks, and/or special tasks where hazardous chemicals are involved.
- _____ 13. Keep a written record of the training conducted, a summary of the topics covered, and the employees who attended the training.
- _____ 14. Tell contractors about the hazardous chemicals they may encounter in the work site and the protective measures they can take to avoid them.