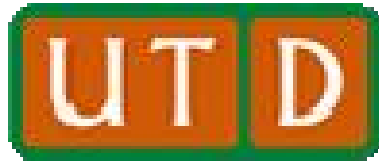


The University of Texas at Dallas
Texas Hazardous Communication Act
Handbook



TEXAS HAZARDOUS COMMUNICATION ACT HANDBOOK

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Texas Hazard Communication Act

A. INTRODUCTION

In 1985, the Texas Legislature promulgated the "Hazard Communication Act," which was revised in 1993 (Texas Health and Safety Code, Ch. 502). (See Appendix 1) This act is intended to reduce the incidence of chemically-related occupational illnesses and injuries by requiring the development of a workplace chemical list, a file of Material Safety Data Sheets (MSDS), and an education/training program for employees who use hazardous chemicals. It sets the minimum requirements which employers must meet in communicating hazards to workers and others specified in the Act. The law is often referred to as a "right-to-know" Act.

The Act requires chemical manufacturers and importers to assess the hazards of the chemicals which they produce or import, and to transmit the hazard information to the users of the chemicals. The information supplied by manufacturers to employers should be comprehensive enough to allow employers to devise appropriate employee protection programs. Furthermore, all employers having workplaces in "educational services" [Standard Industrial Classification (SIC) Code 82] must provide information to their employees about hazardous chemicals in the workplace. This information is to be conveyed by means of "a hazard communication program including labels, material safety data sheets, training, and access to written records."

This Handbook has been developed to help personnel comply with the Act within department/work areas. It is compiled in a "loose-leaf" format so that supplementary materials and information concerning changes in these procedures or department instructions may be inserted. Additional materials and changes will be distributed by the Office of Environmental Health and Safety. It is important that such materials and changes be inserted in the Handbook immediately upon receipt so that the Handbook may be kept up-to-date.

B. SCOPE AND APPLICATION

This document describes a step by step approach for implementing the Texas Hazard Communication Act at The University of Texas at Dallas.

Contact with chemical materials at the University is restricted to relatively small volumes of supply type products.

With the given variables of departmental and support services activities, the Office of Environmental Health and Safety will implement and monitor an effective, high quality, training and communications program to satisfy the requirements of the Texas Hazard Communication Act.

Each program head (or an appointed representative) is responsible for implementing the Hazard Communication Program as it pertains to his or her department and will act as the primary contact person for that department.

University academic programs and support services must develop written hazard communication programs (this handbook fulfills that requirement), compile a

chemical list for each hazardous chemical used or stored, label the contents of in-house containers, make Material Safety Data Sheets or comparable written materials readily available to employees, and conduct training for employees engaged in operations where hazardous chemicals are used. The Act applies to all chemicals which are known to be present in the workplace to which employees may be exposed under normal conditions of use, and to those chemicals to which employees could be exposed in a foreseeable emergency.

C. DEFINITIONS

- A. "Chemical Name" - the scientific designation of a chemical developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name that will clearly identify the chemical for the purpose of conducting a hazard evaluation.
- B. "CAS Number" or "CAS Registry Number" - a number designated by the Chemical Abstracts Service (CAS) that will clearly identify the chemical for the purpose of conducting a hazard evaluation.
- C. "Common Name" - any designation of identification such as code name, code number, trade name, brand name, or generic name used to identify a chemical other than by its chemical name.
- D. "Program Head" - the head of an academic program, head of a department, and director of a nonacademic department.
- E. "Employee" - any person who may be or may have been exposed to hazardous chemicals in the person's workplace under normal operating conditions or foreseeable emergencies. Office workers, grounds maintenance workers, security personnel, or nonresident management are not included unless their job performance routinely involves potential exposure to hazardous chemicals.
- F. "Expose" or "Exposure" - to subject (employee) to a hazardous chemical in the course of employment through any route of entry, including inhalation, ingestion, skin contact, or absorption, and includes potential, possible, or accidental exposure.
- G. "Hazardous Chemical" - any element, chemical compound, or mixture of elements or compounds that is a physical hazard or health hazard.
- H. "Health Hazard" - a designation that includes (1) chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, (2) agents which act on the hematopoietic system, and (3) agents which damage the lungs, skin, eyes, or mucous membranes.
- I. "Label" - any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

- J. "Material Safety Data Sheet" - ("MSDS") a document containing hazard and safe handling information in accordance with the OSHA requirements.
- K. "Mixtures" - a combination of agents that:
 - 1. If a mixture has been tested as a whole to determine its hazards, the test results shall be used to determine whether the mixture is hazardous.
 - 2. If a mixture has not been tested as a whole to determine its hazards, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen.
- L. "Physical Hazard" - a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive), or water-reactive.
- M. "Students" - considered employees by the Texas Department of Health for the purpose of this Act.
- N. "User Employee" - the University employee using or exposed to substances covered under the Hazard Communication Act.
- O. "Work Area" - a room or defined space in a workplace where hazardous chemicals are produced or used and where employees are present.
- P. "Workplace" - an establishment at one geographical location containing one or more work areas. (A single building or a group of small buildings in a close proximity can be designated as a workplace on campus.)

D. TEXAS HAZARD COMMUNICATION ACT EXEMPTIONS

- A. The following items are covered under other Federal and/or State Acts/Regulations:
 - 1. Any hazardous waste, as that term is defined by the Federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. Section 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency,
 - 2. A chemical in a laboratory under the direct supervision or guidance of a technically qualified individual if:

- a. labels on incoming containers of chemicals are not removed or defaced,
 - b. the employer complies with Sections 502.006 and 502.009 with respect to laboratory employees,
 - c. the laboratory is not used primarily to produce hazardous chemicals in bulk for commercial purposes,
3. Tobacco or tobacco products,
 4. Wood or wood products,
 5. Articles,
 6. Foods, drugs, cosmetics, or alcoholic beverages in a retail food sale establishment that are packaged for sale to customers,
 7. Foods, drugs, or cosmetics intended for personal consumption by an employee while in the workplace,
 8. Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. Section 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. Section 1261 et seq.), respectively, if the employer can demonstrate it is used in the workplace in the same manner as normal consumer use and if the use results in a duration and frequency of exposure that is not greater than exposures experienced by consumers,
 9. Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Section 301 et seq.),
 10. Radioactive waste.

E. IMPLEMENTATION OF TEXAS HAZARD COMMUNICATION ACT

The implementation will be done in two phases. Phase one is the gathering of documentation and communicating the needs of the sub-units (labs, shops, etc.) to departmental representatives for their support. The Office of Environmental Health and Safety will assist the representatives in acquiring training material, interpreting the Act, etc. Phase two will be the people-intensive portion of the implementation. It will concentrate on conveying the information collected to the user employees. The quality and understandability of this information is critical to the success of this effort, and every attempt should be made to commit the time and resources to make the information concise, precise, and accessible.

Each department must develop a hazard communication program, compile a list of hazardous chemicals used or stored, label certain in-house containers, make Material Safety Data Sheets (MSDS) or comparable written materials readily

available to employees, and conduct chemical specific training for employees engaged in operations when hazardous chemicals are used.

The Act addresses four specific areas and the requirements for each area:

- 1) Hazard Determination
- 2) Written Hazard Communication Program
- 3) Labels and Other Forms of Warning
- 4) Employee Information and Training.

Training will be divided into two parts—core training and work area training. The core training will be conducted by the Office of Environmental Health and Safety and will concentrate on topics common to all employees regardless of where they work. These elements include:

- Rights under the Act
- How to read and understand an MSDS
- Written Hazard Communication Program
- Labeling System.

The second part of the training will be done by the immediate supervisor of the work area to which the employee will be assigned and will concentrate on the specific hazards present at that location. These topics include:

- Chemical first aid training for operations or tasks where potential exposure exists (Employee Information and Training)
- List of hazardous materials and precautions (Hazard Determination)
- Review of appropriate departmental procedures.

Employees should be informed in these training sessions of their right to:

- Receive information and access to MSDS and workplace chemical lists.
- Be educated and trained about use and handling of hazardous chemicals. This will be verified in writing or an exemption from training will be allowed. (See Appendix 2.)
- File complaints about alleged violations of this Act without reprisal.
- Be required to do no work with a hazardous chemical from an unlabeled container (with the exception of a portable container intended for immediate use).

In accordance with the Act, The University of Texas at Dallas as an employer must:

1. Provide notice to employees of the Act and its provisions,
2. Provide, at least annually, education and training for employees and report to the Commissioner within 30 days after training has been completed that the training was provided,
3. Develop a workplace chemical list for each workplace,
4. Submit the chemical lists annually to the Commissioner of Health,
5. Update the list as necessary (at least annually) and keep the list for 30 years,
6. Provide the Richardson Fire Chief (RFC) names and telephone numbers of knowledgeable program heads and principal investigators to be contacted in emergency,
7. Provide the RFC with chemical lists upon request and allow the RFC to conduct on-site inspections of the workplace chemicals upon request,
8. Obtain or develop Material Safety Data Sheets for hazardous chemicals in the workplace,
9. Maintain Material Safety Data Sheets in a fashion such that employees have ready access to them at all times.

F. CHEMICAL LIST DEVELOPMENT PROCEDURES

WORK AREA CHEMICAL LIST (See Appendix 3.)

The immediate supervisor has the following duties (which include creating a Work Area Chemical List and notifying the requisite officials):

1. To compile a chemical list for each hazardous chemical normally used or stored in the work area,
2. To list the chemical name and common name which is used on the Material Safety Data Sheet and container label,
3. To list the quantity of each chemical at the time of the inventory,
4. To list the CAS registry number used to identify the chemical name,
5. To state the work area in which the hazardous chemical is normally stored or used,

6. To use the standard inventory form for reporting (see Appendix 3), or a similar form providing information requested,
7. To provide a copy of the Work Area Chemical List to the program head or appointed representative and to the Office of Environmental Health and Safety.

G. EMPLOYEE INFORMATION AND TRAINING

All employers, including research and development laboratory facilities, must institute an information and training program for their employees. The program must begin at the time of an employee's initial assignment, with supplementary sessions whenever a new hazard is introduced into the work area. All employees covered must receive training equivalent to the required initial assignment training. This training shall be provided at least annually and must be reported to the Office of Environmental Health and Safety for reporting to the Texas Department of Health within 30 days of completion.

A. CORE TRAINING

The Office of Environmental Health and Safety shall:

1. Be responsible for obtaining/maintaining the Material Safety Data Sheets,
2. Conduct employee core training at least annually. New or newly assigned employees shall be provided training before working with or in a work area containing hazardous chemicals. Core training shall include, but is not limited to:
 - (a) Rights under the Act,
 - (b) Information about how to read and understand a Material Safety Data Sheet,
 - (c) Discussion of written hazard communication program.

B. WORK AREA TRAINING

The program head of each University program that has chemicals shall:

1. Provide work area training at least annually. This will normally be done within each program, for example as the first departmental seminar each fall. The topics covered shall include but are not limited to:
 - (a) Review of the Hazard Communication Act and MSDS's,
 - (b) Location of, acute and chronic effects of, and safe handling of chemicals used by employees,

- (c) Protective equipment and first aid treatment to be applied with respect to the chemicals used by the employees,
 - (d) General safety instructions on handling, cleanup procedures and disposal of hazardous chemicals.
2. Complete the training form to record the core training and work area training including dates of training sessions and employee's signature of attendance (forms are available from each University department).

H. MATERIAL SAFETY DATA SHEET (MSDS)

An MSDS is a technical bulletin detailing information about a hazardous chemical. If the employer becomes newly aware of any data or if a report is published suggesting a hazard not indicated on a provided MSDS, the employer is required to prepare a new MSDS within three months as a replacement.

The Act is designed so that the MSDS is the most comprehensive source of written information for the employee. No standard format for the MSDS is specified as long as all required information is included. The MSDS must be written in English; and, as a minimum, must contain the following:

- The identity that is used on the container label,
- The chemical and common name of all ingredients having known health hazards present in concentrations greater than 1%, and for carcinogens, if present at 0.1% or more,
- The physical and chemical characteristics of the hazardous components,
- The physical and health hazards including signs and symptoms of exposure and prior and/or existing contraindicating medical conditions,
- The primary routes of entry,
- Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Annual Report on Carcinogens or is a potential carcinogen according to International Agency for Research on Cancer (IARC) or the Occupational Safety and Health Administration (OSHA),
- The precautions for safe handling and use, and procedures for spill/leak cleanup,
- Control measures
- The emergency first aid procedures
- The name, address, and telephone number of the company or the

responsible employee distributing the MSDS.

When reading or preparing an MSDS, one should be aware of the following information.

1. The MSDS often outlines only the minimum precautions for safe handling of the chemical in the sections on fire and explosion hazards, spill or leak procedures, special protection information, and special precautions. Thus, if an employer's policy or the reader's judgment suggests more stringent procedures, they should be used.
2. When no mention of a particular health effect is made in the MSDS, one should not assume the substance is hazard-free. Test results may not have been available when the MSDS was prepared.
3. One should expect a completed MSDS with no blank spaces. When receiving an MSDS with blank spaces, the supplier should be questioned. If data are not available, the MSDS should state so in the space provided.
4. There are several ways in which MSDS's can be furnished to employees:
 - a. Actual sheets on file in the work area,
 - b. MSDS's accessible through computer terminals in work areas (by typing in the chemical name or cross-reference number.
5. A database with over 50,000 MSDS's is available 24 hours a day in the east wall of the Berkner Chemical Storeroom, BE2.412C. An MSDS can be viewed by entering a chemical name or formula.

I. WRITTEN HAZARD COMMUNICATION PROGRAM

Each program must establish a comprehensive, written hazard communication program, including provisions for container labeling, Material Safety Data Sheets, and an employee training program.

Please note: Providing an employee a data sheet to read does not satisfy the Act's requirement.

This program must describe, in writing, how the Act's criteria in the sections on Labels and Other Forms of Warning, Material Safety Data Sheets, and Employee Information and Training will be met.

The Written Hazard Communication Program must include:

- A description of the steps the employer takes to ensure that labels, MSDS's, and the employee information and training program meet the Act's requirements,
- Procedures used by the employer to evaluate hazards,
- A list of hazardous chemicals known to be present, either compiled for the workplace as a whole or for individual work areas,
- Description of the methods to be used to inform employees of hazards related to unlabeled pipes in the work areas,
- Description of the methods to be used to inform employees of the hazards associated with non-routine tasks involving hazardous chemicals,
- Description of the methods the employer will use to inform contractor employers of the hazardous chemicals their employees may be exposed to while performing their work.

A. Labels and Other Forms of Warning

The Act requires every chemical manufacturer or importer and every research and developmental laboratory to ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked with the identity (keyed with the MSDS) of the product, appropriate hazard warnings, and the name and address of the manufacturer importer, or other responsible party. Similarly, every user of hazardous chemicals must ensure that each container of hazardous chemicals in the workplace is labeled appropriately with the following information:

- The identity of the hazardous chemical(s),
- The appropriate hazard warnings,
- The name and address of the chemical manufacturer, importer, or other responsible party.

B. Nonmanufacturing Labeling

The University of Texas at Dallas must label existing stocks of chemicals with the following information, if such stocks are not already appropriately labeled:

- The identity of the hazardous chemical(s),
- Appropriate hazard warnings.

Existing labels complying with the Act need not be replaced. Employers, including research laboratories, must not remove or deface labels on incoming containers unless the original labels are replaced with other appropriate labels. Employers are not required to label portable containers which are intended only for immediate use of the employee

who makes the transfer.

Appendix 1

SUMMARY OF THE TEXAS HAZARD COMMUNICATION ACT (HB 1112)

Contact: SAFETY OFFICE

The Hazard Communication Act was first enacted by the 69th Legislature in 1985 and codified in Vernon's Texas Civil Statutes at Article 5182b. It was revised in 1993 and is currently codified in the Texas Health and Safety Code, Ch. 502. See also Ch. 506, the Public Employer Community Right-to-Know Act.

The law provides access to training and information on hazardous chemicals to which employees or the general public may be exposed and provides hazard information to emergency service personnel and the Commissioner of Health.

1. SIC (STANDARD INDUSTRIAL CLASSIFICATION) CODE GROUPS

The following SIC code groups are covered by the Act:

GROUPS

- A. 20-39 Manufacturing,
- B. 46-49 Pipelines, transportation, communications and electric, gas, and sanitary services,
- C. 51 Wholesale, nondurable goods,
- D. 75 Auto repair, services, garages,
- E. 76 Miscellaneous repair services,
- F. 80 Health services (hospitals, clinics, etc.),
- G. 82 Educational services,
- H. 84 Museums, art galleries, botanical all zoological gardens, State and local governments, all volunteer emergency organizations.

2. EMPLOYER MANDATES

Each employer, including public universities, covered by the Act must:

- I. Provide notice to employees of the Act and its provisions,
- II. Provide, at least annually, education and training for employees, and report to the Commission within 30 days that training was provided,
- III. Develop a workplace chemical list for each workplace,
- IV. Submit the chemical list annually to Commissioner of Health,

- V. Update the list as necessary (at least annually) and keep the list for 30 years,
- VI. Provide the local fire chief names and phone numbers of program heads and principal investigators to be contacted in emergency,
- VII. Provide the local fire chief with the facility chemical lists.

3. CHEMICAL MANUFACTURER/DISTRIBUTOR RESPONSIBILITY

Each chemical manufacturer or distributor must:

- A. Provide labels for containers,
- B. Provide Material Safety Data Sheets (MSDS's) to purchasers of hazardous chemicals,
- C. Provide access to MSDS's by employees, and by the Commissioner of Health or local fire chief upon request.

4. PENALTIES

Employers may be subject to administrative penalties, and civil or criminal fines ranging from \$500 to \$25,000 for violations of the act.

5. RULEMAKING AUTHORITY

The Texas Board of Health may adopt rules necessary to carry out the provisions of the Act. The rules are found at 25 TAC §295.1-295.9.

6. EXEMPTIONS

The following specific items are exempt from the Act:

- A. Any hazardous waste, as that term is defined by the Federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. Section 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency,
- B. A chemical in a laboratory under the direct supervision or guidance of a technically qualified individual if:
 - 1) labels on incoming containers of chemicals are not removed or defaced,
 - 2) the employer complies with Sections 502.006 and 502.009 with respect to laboratory employees,
 - 3) the laboratory is not used primarily to produce hazardous chemicals in bulk for commercial purposes,

- C. Tobacco or tobacco products,
- D. Wood or wood products,
- E. Articles,
- F. Foods, drugs, cosmetics, or alcoholic beverages in a retail food sale establishment that are packaged for sale to customers,
- G. Foods, drugs, or cosmetics intended for personal consumption by an employee while in the workplace,
- H. Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. Section 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. Section 1261 et seq.), respectively, if the employer can demonstrate it is used in the workplace in the same manner as normal consumer use and if the use results in a duration and frequency of exposure that is not greater than exposures experienced by consumers,
- I. Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Section 301 et seq.),
- J. Radioactive waste.

7. TRADE SECRETS

Provisions are made to allow an employer to withhold important trade secrets if specified procedures are met. Physicians must be able to obtain necessary information for diagnosing and treating patients.

8. EMPLOYEE RIGHTS

Employees have the following rights under the Act:

- A. Access to the workplace chemical lists and the pertinent MSDS's,
- B. To be educated and trained about use and handling of hazardous chemicals,
- C. To file complaints about violations without reprisal,
- D. To not be required to work with hazardous chemicals from unlabeled containers, except portable containers for immediate use.

9. PHYSICIANS' RIGHTS

A physician must be provided all relevant information when diagnosing or treating a person exposed to a hazardous chemical.

10. FIRE CHIEFS, FIRE FIGHTERS, EMERGENCY PERSONNEL

- A. The facility chemical list must be provided to the local fire chiefs. Texas Health and Safety Code §506.006(d). Emergency personnel may obtain the workplace chemical list upon request,
- B. Fire chiefs, fire fighters, and emergency personnel may conduct on-site inspections of the chemicals on the list to prepare fire department activities in case of emergency,
- C. The local fire chief may make lists and MSDS's available to other emergency personnel but may not otherwise distribute them without the approval of the employer,
- D. The local fire chief is to be provided names and phone number of contact persons.

11. COMMISSIONER OF HEALTH'S RESPONSIBILITIES

In accordance with the Occupational Health Program, the Commissioner of Health shall:

- A. Develop and maintain an information system on hazardous chemicals in the workplace for public access,
- B. Develop education and training assistance materials for employers unable to develop programs,
- C. Determine validity of trade secret claims,
- D. Obtain MSDS's from employer when requested by a person.

12. GENERAL PUBLIC'S RIGHTS

Persons living in proximity to an employer may obtain information from the Commissioner of Health through specific procedures.

IMPORTANT POINT: The law requires disclosure of chemical hazards, placing specific responsibilities on both public and private employers. Even if the Texas Department of Health cannot fully implement all of its responsibilities, the employers can be penalized and face substantial fines and adverse publicity.

TRAINING CERTIFICATION / EXEMPTION for HAZARDOUS MATERIALS USAGE

_____/_____
(Last Name) (First Name) (M.I.)

_____/_____
(Department) (I.D. Number)

INSTRUCTIONS: It has been determined that you may be exposed to hazardous chemicals in the course of your job at The University of Texas at Dallas. State law requires that you be informed of the hazards of such exposures and that you be given chemical specific training about these hazards.

If you will not be exposed to hazardous chemicals in your work area, you must sign the exemption near the bottom of this form, and return it to: The Departmental Training Representative.

If you are exposed or have the potential for exposure to hazardous chemicals in your work area, you must undergo a general Hazard Communication Act Training program at a designated departmental meeting room. Additionally, the law requires that you receive chemical specific training for the chemicals you will be using. This will occur within your department.

After completing the general core training, sign on the appropriate line below and leave the copy with the training coordinator. Once you have received training within your department, sign on the appropriate line below and leave it with the training coordinator.

DO NOT SIGN ANY LINE UNLESS YOU ARE EXEMPT OR HAVE RECEIVED THE REQUIRED TRAINING!

If you have any questions about your Hazard Communication Act Training, please call the Office of Environmental Health and Safety at Extension 4111.

Training Exemption: I am not exposed nor am I likely to be exposed to hazardous chemicals in my work area:

_____/_____
(Signature) (Date)

Training Certification: I have received the following training on the dates indicated.

Training:_____/_____
(Signature) (Date)

Appendix 3

TEXAS HAZARD COMMUNICATION ACT
CHEMICAL LIST

CHEMICAL NAME	COMMON NAME	QTY	CAS REGISTRY NO.	WORK AREA WORKPLACE
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