

Hazard Communication Program

Overview

Policy

A safe and healthful work environment shall be provided to all employees at the University of Richmond (UR). This program has been established to safeguard the health and safety of all UR employees by ensuring that the hazards of all chemicals in the workplace are evaluated and that information concerning their hazards is transmitted to employees. This policy meets or exceeds the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication standard (29 CFR 1910.1200).

Scope

The provisions of this program cover all departments that utilize chemicals and chemical products including Athletics, Facilities, Dining Services, Student Health, Police, the Art and Art History Department, Student Health and the Modlin Center.

Exemptions from this program include the following:

- Office workers who only encounter hazardous chemicals in isolated instances are not covered by this program.
- Laboratory operations are exempted from the provisions of the Hazard Communication Program and are addressed under the University of Richmond Chemical Hygiene Plan. Such laboratory operations shall:
 - Ensure that labels are not removed or defaced
 - Ensure that Safety Data Sheets (SDSs) are available to employees
- Warehouse operations where chemicals and chemical products are only handled in sealed containers are exempted from the provisions of this program. A chemical inventory is not required at a warehouse operation. Such warehouse operations shall:
 - Ensure that labels are not removed or defaced
 - Ensure that SDSs received are available to employees
 - Provide applicable job-specific Hazard Communication training

Objectives

This written Hazard Communication Program (HCP) requires all departments at UR who utilize chemicals to achieve the following minimum standards:

- Ensure that chemical hazards are identified within each work area.
- Make available chemical hazard information to all personnel who may be potentially exposed.
- Provide employees with information and training on chemical hazards in their work place.

Take reasonable precautions to provide an environment that is free from uncontrolled recognized hazards.

Exempted Materials

- Hazardous waste
- Tobacco and tobacco products
- Wood or wood products, foods, drugs or cosmetics designed for personal consumption
- Consumer products or hazardous substances that are used in the same manner as normal consumer use and result in a duration and frequency of exposure that is not greater than those experienced by consumers
- Articles or manufactured items that do not release or result in employee exposure to hazardous chemicals under normal conditions
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Applicable Regulations

29 CFR 1910.1200 – Hazard Communication (Amended 2012)

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Definitions

Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, *e.g.*, minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any substance, or mixture of substances.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system 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 classification.

Classification means to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

Commercial account means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

Common name means any designation or 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.

Container means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Exposure or exposed means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Hazard category means the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard class means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard not otherwise classified (HNOC) means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Hazard statement means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous chemical means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health hazard means a chemical which is classified as posing one of the following hazardous

effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200—Health Hazard Criteria.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Label means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label elements means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Mixture means a combination or a solution composed of two or more substances in which they do not react.

Physical hazard means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200—Physical Hazard Criteria.

Pictogram means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary statement means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Product identifier means the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

Signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

Simple asphyxiant means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Use means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Work area means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace means an establishment, job site, or project, at one geographical location containing one or more work areas.

Program Administration

Directors and Department Heads

Directors and Department Heads are ultimately responsible to ensure that all Hazard Communication requirements are implemented in their department/division. This includes implementing specific written procedures for the acquisition of chemical materials within the organization, maintaining a chemical inventory and safety data sheets for all chemicals used, and providing chemical hazard information and training to their employees. These procedures are located in the Appendices of this document. The Director/Department Head may designate personnel to implement this program.

Office of Environmental Health and Safety (EHS)

The Director of EHS shall:

- Develop, implement and update the written UR Hazard Communication Program.

- Manage the electronic SDS system for the University of Richmond. This includes maintaining a master chemical inventory, a master set of SDSs used at UR, as well as an emergency backup of the entire inventory.
- Assist Departments in the development of their Department specific Hazard Communication procedures.
- Assist Departments in identifying hazardous substances present in the work area and evaluate potential hazards of operations.
- Assist Departments with employee training regarding chemical hazards or practices specific to their work areas.
- Assist Departments in reviewing new safety data sheets (SDSs) to determine the need for additional training and review adequacy of the SDS.
- Recommend appropriate engineering controls, administrative controls and personal protective equipment with respect to exposure to chemicals.
- Produce copies of SDSs and of the Hazard Communication Program upon request by any employee or regulatory agency.
- Assist Departments in Informing outside contractors of chemical (or other) hazards that may be encountered while working at UR.
- Periodically audit the program to ensure continued effectiveness.

Supervisors

Supervisors are responsible for implementing the Hazard Communication Program at the local level of operation and ensuring the safe use of hazardous substances for all areas under their supervision. Supervisors shall:

- Inform employees of any operations in their work area where hazardous substances are present and of the location and availability of the written Hazard Communication Plan.
- Ensure that employees are trained on the UR HCP and on the physical hazards, health hazards, safe handling procedures and emergency procedures for hazardous substances in their work area.
- Maintain an inventory of all hazardous chemicals stored or used within their area of responsibility.
- Ensure that all hazardous chemicals are properly labeled and that these labels are not removed or defaced.
- Ensure that Safety Data Sheets are available for all hazardous chemicals used in the work area and that their employees know how to obtain and interpret an SDS.
- Develop safe work procedures for all operations under their supervision.
- Ensure that employees are trained on new chemical hazards and on new hazards caused by non-routine work prior to employee exposure from the new chemical or from the non-routine task.
- Ensure the proper performance of non-routine tasks.

- Adequately inform any non-University personnel sharing the same work area of the hazardous substances to which their employees may be exposed while performing work and inform them how to obtain an SDS.

Request assistance from the EHS office as needed to implement this program.

Employees

- Plan and conduct each operation according to established procedures and good safety practice.
- Review chemical safety information on the label and/or SDS prior to using a chemical for the first time and periodically thereafter.
- Report any chemical exposures, injuries or ventilation problems to his/her supervisor.
- Maintain his/her work area in good order, free from open or unlabeled chemical containers.
- Properly use, maintain, and store PPE issued to him/her.
- Attend required hazard communication training.
- Review the use of chemicals before engaging in any non-routine task.
- Ask questions of your supervisor or an EHS representative if you have any concerns regarding chemical safety or any other aspects of this program.

Chemical Inventory

Scope

The University of Richmond must maintain complete list of hazardous substances known to be present in the various work areas.

Inventory

An up-to-date inventory of all chemicals used in a workplace must be maintained. At UR the “workplace” may be a department or a subset of a department such as a shop at the Facilities office. The supervisor of each workplace is responsible for maintaining the chemical inventory for their area. A department head may designate this responsibility to a specific individual in the department, such as an employee who purchases the majority of chemicals for the department.

The chemical name on the inventory form must correspond to the chemical’s product identity found on the label and the SDS. This list will help management, supervisors, and employees.

When a chemical or product is either added or deleted, the inventory list must be updated to reflect the changes.

Location

A chemical inventory list will be available in each UR department, shop or work area in either paper or electronic format. Supervisors must maintain a list of the materials used in areas under their supervision.

Review

This inventory list should be reviewed by the Supervisor for completeness at least annually. Following the review, the electronic chemical inventory should be updated with chemicals no longer present archived and new chemicals added to the list.

Safety Data Sheets

Available From Suppliers

The Safety Data Sheet (SDS) is a fact sheet for chemicals which pose a physical or health hazard in the workplace. The Hazard Communication Standard requires that manufacturers and distributors provide SDSs with the chemicals they produce or ship (initial shipment and with the first shipment after an SDS is updated).

Obtaining SDS's

The UR personnel responsible for purchasing hazardous chemical products will obtain an SDS from the chemical manufacturer or supplier for each hazardous chemical used. These sheets will contain, as well as can be determined, all information required by the Hazard Communication Standard.

Local Purchasing

If materials are purchased directly from a local retail store, the purchaser must obtain an SDS and ensure that the sheet gets into the SDS system. For example, chemicals may be purchased at a hardware store or discount store. At these locations an SDS must be requested when items are purchased and a copy forwarded to the Director of EHS.

Availability

SDSs must be made available to all employees in their work area during their work shift and in the event of a power or computer outage. Means of access to SDSs will include the following:

- The primary means for accessing SDS will be through the MSDSOnline system web link. The following steps should be taken:
 - Access the EHS web site at <http://safety.richmond.edu/hazard/index.html>
 - Click on the Material Safety Data Sheet (MSDS) link.
 - A new dialogue box will open. You will be asked to enter your UR user name and net ID.

- The MDSOnline system will open. SDS can be assessed either by clicking on departments or entering the chemical name or CAS # in the search box.
- In the event of an emergency, a backup copy of the SDS will be kept on a thumb drive. The thumb drive will be located in the UR Police Department Dispatch Office.

Departments may also utilize paper copies of SDS but must ensure employees are trained and SDSs are kept up to date.

Labels

Container Labels

University of Richmond is responsible for making certain that all the required information is on hazardous chemical containers that arrive at the university. If the information is incomplete or the label is damaged upon receipt of the chemical, the receiver at the University of Richmond must reject the shipment or supplement the information.

Information Required

All containers of hazardous chemicals received from a manufacturer or distributor must be labeled or marked with:

- Product Identifier
 - Signal word
 - Hazard Statement
 - Pictogram
 - Precautionary statement
- Name, address and telephone number of the responsible party. See appendix D

Read Before Handling

Labels must be in English and legible. Employees should read the label before a container is opened, moved, or handled.

Unlabeled Containers

A container or containers whose label is missing, illegible or has inadequate information should be reported immediately to the Supervisor. No one should handle a container when its contents are unknown. Contact EHS at 289-8721 for assistance in identifying unknown chemicals.

Workplace and Temporary Portable Container Labeling

When transferring materials from a manufacturer's labeled container to a workplace or secondary container, the container must be labeled with at least the following information:

- Name of chemical
- Physical and health hazards of the chemical
- Hazard Precautions

This information is transferred from the source label or from the SDS.

University of Richmond is not required to label a temporary portable container into which a hazardous chemical is transferred from a labeled container if and only if the chemical is in the absolute control of the person who performed the transfer. The container must be emptied before the user leaves the room for any reason.

NFPA 704, HMIS, batch tags or other means of labeling may be used as long as those employees working the area are trained on the use of the system. See appendix D for a comparison of labeling systems.

Unlabeled Pipes

All piping containing hazardous materials (i.e. gas lines, chemical waste lines) should be labeled with the contents of the pipe. Employees should not work on any unlabeled piping system unless they are familiar with its contents or have discussed the situation with their supervisor and appropriate safety steps have been taken.

Stationary Process Containers

Mechanical systems (i.e. HVAC, water) will be the primary stationary processes utilized at the University of Richmond. Chemical drums attached to these systems must have their label intact or hazard information written on the drum. Storage tanks should be labeled with appropriate hazard information.

Training

Schedule

Employees are trained prior to starting work in a job classification which requires the use of chemicals. Additional training is required each time a new chemical hazard is added to the work area or when the work area changes.

Provider

Initial basic Hazard Communication training will be available through the Office of Environmental Health and Safety via online or live training. Training on the specific chemical hazards to which an employee may be exposed will be provided by the Supervisor at the time of initial **employment** in any job classification where chemical products are used. When chemical products that present new hazards are added to a work location, the Supervisor will provide appropriate training and review personal protective equipment needs. Supervisors are encouraged to ask for assistance from the Office of EHS to ensure understanding of the chemical hazards and for the selection of appropriate PPE.

Employees Training Content

During initial training, employees must be informed of the following:

- The requirements of the Hazard Communication standard
- The details of the University of Richmond Hazard Communication Program, including details of the labels on containers, safety data sheets, and how employees can obtain and use the appropriate hazard information
- The location and availability of the University of Richmond written Hazard Communication Program
- Any operations in their work area where hazardous chemicals are present
- How to read a label and how to use the information in the work place
- The location and availability of SDSs and how to read and interpret an SDS
- How the information on the label is related to the SDS
- The hazards of the chemicals or classes of chemicals that are used in the work place including physical, health, simple asphyxiation, combustible dust and pyrophoric gas hazards, as well as other hazards not classified
- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area and the physical and health hazards of chemicals in the work area
- The measures employees can take to protect themselves from hazards, including specific procedures such as engineering controls, appropriate work practices, emergency procedures, and personal protective equipment to be used

Introduction of New Chemicals

If new hazardous materials that have not been used before are brought into the work area employees must be informed of the following:

- The physical and health hazards of the material
- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area and the physical and health hazards of chemicals in the work area
- The measures employees can take to protect themselves from hazards, including specific procedures such as engineering controls, appropriate work practices, emergency procedures, and personal protective equipment to be used.

It is the responsibility of the supervisor to ensure that training on the new chemical hazards occurs prior to use.

Non-Routine Tasks

A non-routine task involves the use of hazardous materials that are not normally used during the employees work or the use of familiar hazardous materials in an unusual fashion. Prior to commencing a task that is non-routine; the Supervisor will have a safety meeting with all

employees to discuss the safe completion of the task. Safety information, personal protective equipment, and other necessary precautions they may need to take must be reviewed. If the non-routine task is discovered during the course of the work, the Supervisor will have a safety meeting at that time. The Supervisor is encouraged to request assistance from the EHS office in this safety review.

It is the responsibility of the supervisor to ensure that training on the chemical hazards during non-routine tasks occurs prior to the task being conducted.

Contractors

Relationship

University of Richmond wants to ensure that UR employees are not injured by chemicals used by contractors working on site and that contractors are not injured by materials that UR uses. This section covers the relationship between UR and contractors.

Contractor Responsibility

Contractors are responsible for:

- Developing and implementing their own hazard communication program
- Informing University of Richmond personnel of any chemical hazards they bring with them
- Ensuring the proper handling, use, and storage of these chemicals
- Providing access to SDSs for their chemicals
- Providing the Supervisor with information concerning hazardous materials to be used for contracted work before the materials are brought onto the facility

UR Responsibility

The University of Richmond Supervisor in charge of a project must inform contractors and their employees who could be exposed to hazardous chemicals on UR property of the following:

- How to get access to UR SDSs
 - Any workplace labeling system used on site
- Precautionary measures that need to be taken to protect employees during their normal work at UR or in the event of an emergency.

Temporary Employees

The following information will be provided to temporary employees working at University of Richmond who may be exposed to chemicals:

- Information on the Hazard Communication Program including availability and how to obtain an SDS
- A list of contact names and numbers in the event of an emergency

- Information and training on all hazardous chemicals to which they might be exposed
- Information and training on the use of appropriate PPE for protection against these hazards.

Written Program

Availability

This written program will be made available to employees or designated representatives of employees upon request to the Director of Environmental Health and Safety. The written program will also be made available to the Assistant Secretary of Labor of OSHA or the Director of NIOSH when requested.

Annual

This written program and the associated procedures will be reviewed annually by the Director of Environmental Health and Safety. When problems arise with the procedure or process it must be updated and communicated to all employees covered by the program. A review form is located in Appendix B of this document.

Recordkeeping

Safety Data Sheets

The OSHA standard states that the SDS and records concerning the identity of a substance or agent must be maintained for as long as the chemical is in use at the University of Richmond. SDS used as an exposure record will be stored in compliance with 1910.1020.










Training Records

Hazard Communication training records will be maintained for at least 5 years.

Appendix A: Label Element-Pictograms

All containers of hazardous chemicals received from a manufacturer or distributor must include pictogram(s) corresponding to the chemical's hazard classification(s). Employees must be trained on the meaning of these pictograms. The pictograms are as follows:

HCS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> ▪ Flammables ▪ Pyrophoric ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> ▪ Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> ▪ Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> ▪ Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> ▪ Acute Toxicity (fatal or toxic)

Appendix B: Periodic Review

This written program and the associated procedures will be reviewed annually by the Director of Environmental Health and Safety as well as those responsible for department programs.

_____ Written program reviewed and modified if necessary

_____ Chemical inventory reviewed and updated

_____ All new SDS in electronic system and/or SDS books

_____ All containers inspected for proper labeling

_____ Employees informed of any new hazards introduced

_____ Emergency procedures reviewed and modified if necessary

_____ New employees trained in HazCom

_____ Employees who need refresher training identified and scheduled for training

Workplace(s):

Appendix C: Department Specific Procedures

The following are specific procedures for how the UR Hazard Communication Program will be implemented at the department/workplace listed below.

<i>Department/Workplace</i>	
<i>Responsible person, e.g. Department Head</i>	
<i>Person(s) purchasing chemicals</i>	
<i>Person(s) designated to maintain chemical inventory</i>	
<i>Location of chemical inventory and SDSs</i>	
<i>How is this information organized, e.g., by room, shop, dept?</i>	
<i>Job classifications that require HazCom training</i>	
<i>How are new hires trained on HazCom?</i>	
<i>Date of last review of these procedures</i>	




Hazard Communication Standard Labels

OSHA has updated the requirements for labeling of hazardous chemicals under its Hazard Communication Standard (HCS). As of June 1, 2015, all labels will be required to have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification. A sample revised HCS label, identifying the required label elements, is shown on the right. Supplemental information can also be provided in the label as needed.

For more information:





(800) 321-OSHA (6742)
www.osha.gov

SAMPLE LABEL	
CODE _____ Product Name _____	Product Identifier
Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____	Supplier Identification
Keep container tightly closed. Store in a cool, well-ventilated place that is locked. Keep away from heat/sparks/open flame. No smoking. Only use non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Do not breathe vapors. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Dispose of in accordance with local, regional, national, international regulations as specified. In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO ₂) fire extinguisher to extinguish. First Aid If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.	Precautionary Statements
Hazard Pictograms 	Hazard Statements
Signal Word Danger	Hazard Statements Highly flammable liquid and vapor. May cause liver and kidney damage.
Supplemental Information Directions for Use _____ _____ _____ Fill weight: _____ Lot Number: _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____	



Comparison of NFPA 704 and HazCom 2012 Labels

	 NFPA 704	 HazCom 2012
Purpose	Provides basic information for emergency personnel responding to a fire or spill and those planning for emergency response.	Informs workers about the hazards of chemicals in workplace under normal conditions of use and foreseeable emergencies.
Number System: NFPA Rating and OSHA's Classification System	0-4 0-least hazardous 4-most hazardous	1-4 1-most severe hazard 4-least severe hazard • The Hazard category numbers are NOT required to be on labels but are required on SDSs in Section 2. • Numbers are used to CLASSIFY hazards to determine what label information is required.
Information Provided on Label	<ul style="list-style-type: none"> • Health-Blue • Flammability-Red • Instability-Yellow • Special Hazards*-White *OX Oxidizers W Water Reactives SA Simple Asphyxiants	<ul style="list-style-type: none"> • Product Identifier • Signal Word • Hazard Statement(s) • Pictogram(s) • Precautionary statement(s); and • Name address and phone number of responsible party.
Health Hazards on Label	Acute (short term) health hazards ONLY. Acute hazards are more typical for emergency response applications. Chronic health effects are not covered by NFPA 704.	Acute (short term) and chronic (long term) health hazards. Both acute and chronic health effects are relevant for employees working with chemicals day after day. Health hazards include acute hazards such as eye irritants, simple asphyxiants and skin corrosives as well as chronic hazards such as carcinogens.
Flammability/Physical Hazards on Label	NFPA divides flammability and instability hazards into two separate numbers on the label. Flammability in red section Instability in yellow section	A broad range of physical hazard classes are listed on the label including explosives, flammables, oxidizers, reactives, pyrophorics, combustible dusts and corrosives.
Where to get information to place on label	Rating system found in NFPA Fire Protection Guide to Hazardous Materials OR NFPA 704 Standard System for Identification of the Hazards of Materials for Emergency Response 2012 Edition. Tables 5.2, 6.2, 7.2 and Chapter 8 of NFPA 704	OSHA Hazard Communication Standard 29 CFR 1910.1200 (2012). 1) Classify using Appendix A (Health Hazards) and Appendix B (Physical Hazards) 2) Label using Appendix C
Other	The hazard category numbers found in section 2 of the HC2012 compliant SDSs are NOT to be used to fill in the NFPA 704 diamond.	Supplemental information may also appear on the label such as any hazards not otherwise classified, and directions for use.
website	www.nfpa.org/704	www.osha.gov OR www.osha.gov/dsg/hazcom/index.html

For more information:



National Fire Protection Association
www.nfpa.org
(800) 344-3555



Occupational Safety and Health Administration

U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA-3678-08 2013



The substance: "NOMIXUP 7042012"

To create an OSHA label per HazCom 2012:

Step 1: Perform the classification in accordance with Appendix A: Health Hazards & Appendix B Physical Hazards of 29 CFR 1910.1200 — this is where you find the criteria for each hazard class and hazard category.

Class: Flammable Gas, Category 1

Class: Carcinogen, Category 1B

Class: Specific Target Organ Toxicity (Single Exposure), Category 3

Class: Substances and Mixtures Which, in Contact with Water, Emit Flammable Gases, Category 3

Step 2: Gather labeling information (Pictograms, Signal Word, Hazard Statements) from Appendix C of 29 CFR 1910.1200 based on the chemical's hazard class and category.



Step 3: Create the Label

To Create NFPA 704 label:

Step 1: Collect information on hazards from applicable sections of SDS. Some SDSs may provide the NFPA diamond symbol with hazard rating numbers filled in already. **Note: Do NOT use the hazard category numbers given in section 2 of HazCom 2012 compliant SDS on 704 label!**

If the diamond is not provided on the SDS you can obtain the information under the following sections of the SDS. Note that additional information may be provided in other sections of the SDS.

- Health hazard information under Section 11
- Flammability information under Section 9
- Instability information under Section 10
- Special information under Section 9, 10, 11



Step 2: Obtain current edition copy of NFPA 704 or view on line at www.nfpa.org/704. Compare the criteria on the SDS sections as shown above with the criteria shown in Tables 5.2 (Health), 6.2 (Flammability), 7.2 (Instability) and 8.2 (Special Hazards).

Step 3: Place numbers for the degree of hazard associated with the criteria obtained in Step 2 in the correct quadrant of NFPA 704 placard.

For more information:



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