

FAIRFIELD UNIVERSITY

Hazard Communication Plan

Global Harmonized System

Updated: August 15, 2020

This program covers all work operations at Fairfield University where employees may be exposed to hazardous chemicals under normal working conditions or during an emergency situation.

Fairfield University

Hazard Communication/GHS Plan

Table of Contents

Policy Statement	2
Plan Administration	3
Plan Review and Update.....	4
Plan Availability.....	4
Definitions	5
Labeling	8
(Material) Safety Data Sheets (M)SDS	9
(M)SDS Access.....	9
Primary System.....	9
Backup System.....	9
(M)SDS Not Available.....	9
New or Revised (M)SDS's.....	
Employee Training and Information	10
Initial Training.....	11
Retraining.....	11
Recordkeeping.....	11
Training Content and Format.....	11
Nonroutine Tasks Involving Hazardous Chemicals	11
Informing Other Employers/Contractors	12
List of Hazardous Chemicals	12
Antidiscrimination Policy	12
Access MSDSonline	13
MSDSonline App	13
Pictogram and Hazards	14-15

Fairfield University

Hazard Communication/GHS Plan

**1073 North Benson Rd.
Fairfield, CT 06824**

Regulation: 29 CFR 1910.1200 Hazard Communication Standards

Plan last updated: August 15, 2020

Scope: This program covers all work operations at **Fairfield University** where employees may be exposed to hazardous chemicals under normal working conditions or during an emergency situation.

Policy Statement

It is the policy of **Fairfield University** to reduce employee exposure to hazardous chemicals and the overall incidence of chemical-related injuries and illnesses. All employees who are potentially exposed to hazardous chemicals in their assigned jobs must be fully informed of both the hazardous properties of the chemicals and the protective measures that are available to minimize exposure to these chemicals. This type of information will be made available to employees by means of labels on chemical containers, SDS's (MSDSs), and training. Employees will be informed of any known hazards associated with chemicals to which they may be exposed before their initial assignment, whenever the hazards change, or when new hazardous chemicals are introduced into their respective work areas.

Plan Administration

Table A provides the roles and contact information for the administration of the hazard communication program.

Program Contact Information for table A

Table A

Task	Contact Person	Contact Information
University Safety Officer	Joseph M. Bouchard	Work: 203 254 4000 Ext: 2546 Mobile: 203 395 5403
Academic Safety Officer	Joseph M Bouchard	Work: Same as above
Academic Safety Assistant	Lisa Sikora	Work: 203-254-4000 Ext: 3223
Human Resources Risk	Faith Hunt	Work: 203 254 4000 Ext: 2258
Facilities Management	David Frassinelli	Work: 203 254 4000 Ext: 4254
Biology Lab Managers	Christopher Hetherington Lenka Biardi Brittany Conover	Work: 203 254 4000 Ext: 2929 Ext: 3196 Ext: 2015
Chemistry Lab Manager	Dorothy Sobczynski	Work: 203 254 4000 Ext: 2126
Physics Lab Manager	Victor Podrasky	Work: 203 254 4000 Ext: 2380
Psychology Lab Manager	Biology Lab Manager: Chris Hetherington	Work: 203 254 4000 Ext: 2195 Ext: 2929
School of Engineering	Dominic Figueiredo James Cavallo	Ext: 4147 Ext: 4147

*Mobile numbers are available at DPS

The Environmental Health & Safety and Fire Marshal's Office is responsible for the implementation of the Plan, including reviewing and updating it as necessary.

Labeling: Individual Department Laboratory Managers are responsible for properly labeling all containers of hazardous chemicals and for maintaining and updating the labels.

SDS (MSDS) inventory: Individual Department Laboratory Managers are responsible for maintaining up-to-date SDS (MSDS) and ensuring that they are readily accessible in all work areas.

Employee training: The Environmental Health & Safety and Fire Marshal's Office and the Academic Safety Officer are responsible for training employees concerning hazardous chemicals in their work areas.

Plan Review and Update

This Plan will be periodically reviewed and updated, and updated whenever new hazards are introduced into the workplace.

Plan Availability

Copies of the Plan, including the written training program, are available upon request to employees, their designated representatives, the state or federal safety regulatory agency, and to the National Institute of Occupational Safety and Health.

Or electronically on the viewer site at www.msds-online.com

Username : fairfield

Password : safety

Definitions (from OSHA website):

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.

Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative

without regard to written employee authorization.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

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.)

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

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.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

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.

Produce means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

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.

Pyrophoric gas means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

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 asphyxiate 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.

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

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.

Material safety data sheet (MSDS)—a written description of a hazardous chemical or chemical product which contains comprehensive technical information about a particular substance and explains the risks, precautions, and remedies to exposure related to hazardous chemicals

Labeling

All containers received for use will be clearly labeled in English and prominently displayed for each work shift. The label must contain the product identifier, signal word, pictogram, hazard statement, precautionary statement, and physical/health hazards as to provide general information regarding the hazard of the chemical. Labels will be in the GHS format and reflect the information that is on the SDS.

Individual Department Laboratory Managers will ensure that all secondary containers in which a substance has been transferred from the original manufacturer's container are labeled with either an extra copy of the original manufacturer's label or with labels marked with the chemical identity, and the appropriate hazard warning. The labels will be updated on as needed basis or during the annual inventory process.

We are also using an in-house labeling system that notifies persons of hazards stored or used in individual rooms and labs via graphics and pictograms (GHS) to convey hazard information. These labels can be generated and printed off from the Universities Safety Dashboard with MSDSONline. **The Environmental Health & Safety and Fire Marshal's Office** will review the department's labeling procedures annually and will require the laboratory managers to update labels as required. Alternative labeling systems such as the National Fire Protection Association (NFPA) 704 Hazard Rating and the Hazardous Material Identification System (HMIS) are permitted for workplace containers. However, the information supplied on these labels must be consistent with the revised SDS, no conflicting hazard warnings or pictograms.

OSHA:

1910.1200(f)(1)

Labels on shipped containers. The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked. Hazards not otherwise classified do not have to be addressed on the container. Where the chemical manufacturer or importer is required to label, tag or mark the following information shall be provided:

1910.1200(f)(1)(i)

Product identifier;

1910.1200(f)(1)(ii)

Signal word;

1910.1200(f)(1)(iii)

Hazard statement(s);

1910.1200(f)(1)(iv)

Pictogram(s);

1910.1200(f)(1)(v)

Precautionary statement(s); and,

1910.1200(f)(1)(vi)

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

Safety Data Sheets SDS (MSDS)

The Environmental Health & Safety and Fire Marshal's Office is responsible for maintaining the program. **Individual Department Laboratory Managers** will ensure that procedures are developed to obtain the necessary SDS's (MSDS's), review incoming SDS's (MSDS's) for new or significant health and safety information, and will see that any new information is communicated to affected employees.

Safety Data Sheets (SDS) Access

SDS's (MSDS's) will be readily available to all employees during each work shift. The primary method for accessing SDS's (MSDS's) in work areas is through accessing the University's SDS (MSDS) Online database. www.msdsonline.com

Username : fairfield

Password : safety

Backup System

The backup system for accessing SDS's (MSDS's) should the primary system fail is located in a folder in the individual laboratories and/or department files.

The steps for accessing the SDS's (MSDS) backup system are:

1. **Contact** the individual responsible for a specific science lab and/or department.

SDS (MSDS) Not Available

If an SDS (MSDS) is not available, or an employee has a problem accessing SDS's (MSDSs), contact **The Environmental Health & Safety and Fire Marshal's Office**.

If an SDS (MSDS) is not received at the time of initial shipment or if the SDS is not current, please contact the supplier, in writing, to request the SDS (MSDS). If an SDS (MSDS) is not received from the supplier in **15** days, notify **The Environmental Health & Safety and Fire Marshal's Office**. The most recent version of the SDS must replace the older MSDS. A copy of all new SDS's should be sent to the Office of Environmental Health and Safety.

Employee Training and Information

Individual departments are responsible for notifying **The Environmental Health & Safety and Fire Marshal's Office** of individuals that require hazardous communication training including any new employees. **Fairfield University** will ensure that all training is provided to individuals that may come into contact with hazardous substances while in the workplace.

Initial Training

Everyone who works with or is potentially exposed to hazardous chemicals will receive initial training on the Hazard Communication 2012 Standard and this Plan before starting work. Individual lab managers will be responsible for specific training to their departments.

Retraining

Additional training will be provided by **Fairfield University through The Environmental Health & Safety and Fire Marshal's** office when new chemicals are introduced into the work area. Retraining is not required if the new chemical contains hazards similar to previously existing chemicals for which training has already been conducted. Retraining shall be conducted annually. The retraining of employees can also occur with an "on line training module" at www.msdsonline.com.

Recordkeeping

All employees taking on-line based hazard communication training sessions will be recorded at the end of the session verifying their completion and filed in **The Environmental Health & Safety and Fire Marshal's office**.

Training Content and Format

Each new employee will receive information and training that covers:

- An overview of the OSHA hazard communication standard
- The hazardous chemicals present at his/her work area
- The physical and health risks of the hazardous chemicals
- Symptoms of overexposure
- How to determine the presence or release of hazardous chemicals in the work area
- How to reduce or prevent exposure to hazardous chemicals through use of control procedures, work practices and personal protective equipment
- Procedures to follow if employees are overexposed to hazardous chemicals
- How to read labels and SDS's (MSDSs) to obtain hazard information
- The location of the SDS's (MSDS) file system and written Hazard Communication Plan

The training delivery method and format is online based on-demand training provided through MSDS Online. The training system can be accessed via the following link;

www.msdsonline.com

Username : fairfield

Password : safety

Other Employers/Contractors

It is the responsibility of **individual departments** to provide other employers and contractors with information about hazardous chemicals that their employees may be exposed to on a job site and precautionary protective measures for their employees. It is also the responsibility of **individual departments** to obtain proof of training in GHS and information about hazardous chemicals used by other employers or contractors to which employees of this organization may be exposed and report them to **The Environmental Health & Safety and Fire Marshal's Office**. Prior to the start of any work on campus.

Other employers and contractors will be provided with SDS's (MSDSs) for hazardous chemicals introduced into the work area by **individual departments** in the following manner:

Providing the employers and contractors this plan and access to the MSDS Online database.

In addition to providing a copy of an SDS (MSDS) the contractor will be informed of necessary precautionary measures to protect employees exposed to operations performed by this organization. Also, other employers and contractors will be informed of the hazard labels used by the organization. Where symbolic, numerical labeling or pictograms systems are used, the employees of other employers or contractors will be provided with information explaining the labels used for hazardous chemicals to which they may be exposed.

List of Hazardous Chemicals

A list of all known hazardous chemicals used in University work areas shall be maintained and made available by the individual departments. **The Environmental Health & Safety and Fire Marshal's Office** will have access to all chemical inventories. The list includes the name of the chemical, the manufacturer, the work area in which the chemical is used and housed, dates of use, quantity used and product identifier. Further information on each chemical may be obtained from the MSDS Online Database.

The hazardous chemical inventory is compiled and maintained by **individual departments**.

Antidiscrimination Policy

Each employee must be informed that **Fairfield University** is prohibited from discharging, or discriminating against, an employee who exercises his/her rights to obtain information regarding hazardous chemicals used in the workplace.

Instructions for MSDSonline access:

www.msdsonline.com

Username: fairfield

Password: safety

*Two tabs at the top of the page:

-Safety Center:

- Obtain and read all Plans and Procedures
- Link to online training

-MSDS Search:

- Search any chemical in our “ebinder” in the search box
- Tabs on the left hand side you can either search “All Products” or a specific location under “Location”
- Search a chemical that is NOT currently in our “ebinder” under the tab “MSDSonline Search”

Instructions to add MSDSonline app to your smart devise:

There are two options:

1. On a web browser search for www.msdsonline.com and add to home screen.
2. Go to the app store and search MSDSonline; add **eBinder-Velocity-EHS** to your home screen

Pictograms	Hazard Class	Example Chemical
	Corrosives	<p>Hydrofluoric acid</p> <ul style="list-style-type: none"> Used for etching in silicon semiconductor production and oil refining. Corrosive to metal.
	Irritant or sensitizer	<p>Acetic acid</p> <ul style="list-style-type: none"> Used in film development and as a solvent in various industries. Skin irritant.
	Health hazard	<p>Formaldehyde</p> <ul style="list-style-type: none"> Used in embalming and as a bacterial and viral disinfectant. Known carcinogen, lung and skin irritant and sensitizer.
	Acute Toxicity	<p>Chloroform</p> <ul style="list-style-type: none"> Used as a solvent in many industries. May be toxic to kidney, liver and heart.
	Flammables	<p>Hydrogen sulfide</p> <ul style="list-style-type: none"> A naturally occurring chemical found in natural gas during oil drilling and used in paper and pulp production. Flammable gas.



Explosive

Ammonium perchlorate

- Used in rocket fuel and some adhesives.
- Oxidizer and explosive hazard under certain conditions.



Gases under pressure

Oxygen

- Used in the medical field for life support and in iron smelting.
- Contents under pressure.



Oxidizer

Silver oxide

- Used in portable batteries.
- Strong oxidizer.



Environmental toxicity

Octane

- A component of refined gasoline.
- Toxic to fish and aquatic invertebrates.