

### 1.0 SCOPE

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The Standard applies to any hazardous substance which is known to be present in the work place in such a manner that employees may be exposed under normal conditions of use or in a reasonably foreseeable emergency resulting from work place operations.

It is the policy of Humboldt State University (HSU) insofar as is reasonable and practical, to ensure that employees know the properties and potential physical and health hazards of the materials which they use or to which they are exposed. Employees who use or may be exposed to potentially hazardous substances or harmful physical agents shall be informed about the hazards of those substances or physical agents and shall be trained in the precautions to take to prevent exposure and what to do if they are accidentally exposed. No employee shall engage in or be required to perform any task which is determined to be unsafe or reasonably hazardous.

### 3.0 PURPOSE

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The purpose of the Hazard Communication Program is to ensure that the hazards of all chemicals used at the University are transmitted to employees and student employees. The communication system is intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The transmittal of information shall be accomplished by means of a comprehensive hazard communication program, to include container labeling and other forms of warning, safety data sheets and employee training.

Hazardous substances in the workplace, in forms and concentrations, which pose potential acute and chronic health hazards to employees who may be exposed to these substances are subject to the program. Departments and employees have a right to know the properties and potential hazards of substances to which they may be exposed.

### 4.0 APPLICABILITY

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All HSU departments that use, handle, or store hazardous substances are subject to the provisions of this Hazardous Communication Program.

This program does not apply to:

- ❖ Any hazardous waste as defined by the Solid Waste Disposal Act;
- ❖ Tobacco or tobacco products;
- ❖ Wood or wood products including lumber which the only hazard they pose to employees is the potential for flammability or combustibility;
- ❖ Articles (hazardous chemicals used in the manufacture or use of an article);
- ❖ Food, drugs, or cosmetics intended for personal consumption by employees while in the workplace;

- ❖ Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 et seq.) and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, Firearms and Explosives;
- ❖ Consumer products packaged for distribution to, and use by, the general public, provided that employee exposure to the product is not significantly greater than the consumer exposure occurring during the principal consumer use of the product;
- ❖ The use of chemical in compliance with regulations of the Director of the Department of Pesticide Regulation issued pursuant to section 12981 of the Food and Agricultural Code.
- ❖ Work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use (as in warehousing, or transportation); however, this section does apply to these operations as follows:
  - The University shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced; [includes compliance with CCR T8 5194.1]
  - The University shall ensure that the safety data sheets are readily accessible to employees during each work shift in their work area;
  - The University shall ensure that employees are provided with training and information, at minimum, on the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.
- ❖ Chemicals that do not have hazardous characteristics

## **5.0 RESPONSIBILITIES**

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The Risk Management and Safety Services Department (RM&SS) shall develop, implement, and monitor the Hazard Communication Program and assist, support and counsel departments with program compliance.

Supervisors are responsible for ensuring that the inventory of hazardous chemicals is maintained and kept current, confirming SDS' are readily available in the workplace, employees receive required training and information and workplace program implementation.

Multi-employer worksites shall establish employer to employer precautionary measures to protect and inform employees sharing work areas that store, handle or use chemicals, of the hazards they may be exposed to while performing their work. Methods of communication shall include labeling system and availability and access to SDS'

Departments are responsible for outside contractors, sponsored by their department, to disclose their chemical inventory and provide copies of SDS' for any hazardous chemical being used in the same work area with University employees. (Copies of contractor SDS' shall be forwarded to RM&SS).

Departments shall notify outside contractors of the hazards in the areas where they will be working.

Chemical manufacturers are responsible for classifying the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures. Distributors are responsible for transmitting this information to employers receiving these products.

## 6.0 DEFINITIONS

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### *Article.*

A manufactured item: (1) Which is formed to a specific shape or design during manufacture; (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which does not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace operations.

### *CAS number.*

The unique identification number assigned by the Chemical Abstracts Service to specific chemical substances.

### *Chemical.*

Any substance, or mixture of substances.

### *Chemical name.*

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 which will clearly identify the chemical for the purpose of conducting a hazard classification.

### *Classification.*

Identification of relevant data regarding the hazards of a chemical; review of those data to ascertain the hazards associated with the chemical; and decision regarding 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.

### *Combustible liquid.*

Any liquid having a flashpoint greater than 199.4°F (93°C) (formerly designated Class IIIB Combustible liquids).

### *Common name.*

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.*

Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, tank truck, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems are not considered to be containers.

### *Designated representative.*

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.

### *Distributor.*

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

*Emergency.*

Any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which may or does result in a release of a hazardous chemical into the workplace .

*Employee.*

Every person who is required or directed by any employer, to engage in any employment, or to go to work or be at any time in any place of employment.

*Employer.*

Employer means:

- (A) The State and every State agency.
- (B) Each county, city, district, and all public and quasi-public corporations and public agencies therein.
- (C) Every person including any public service corporation, which has any natural person in service.
- (D) The legal representative of any deceased employer.

*Exposure or Exposed.*

Any situation arising from work operation where an employee may ingest, inhale, absorb through the skin or eyes, or otherwise come into contact with a hazardous chemical.

*Hazard category.*

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.*

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

*Hazard not otherwise classified (HNOC).*

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.*

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.*

Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, a hazard not otherwise classified, or is included in the List of Hazardous Substances prepared by the Director of Industrial Relations pursuant to Labor Code section 6382.

*Health hazard.*

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.

*Immediate use.*

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.*

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 purchasers within the United States.

*Label.*

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.*

The specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

*Manufacturer.*

A person who produces, synthesizes, extracts, or otherwise makes a hazardous chemical.

*Mixture.*

A combination or a solution composed of two or more substances in which they do not react. NIOSH. The National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services.

*Physical hazard.*

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; combustible liquid; water-reactive; or in contact with water emits flammable gas. See Appendix B to T8 CCR section 5194 - Physical Hazard Criteria.

*Pictogram.*

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.*

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.*

To manufacture, process, formulate, repack, or relabel.

*Product identifier.*

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.*

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.*

Someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

*Safety data sheet (SDS).*

Written or printed material concerning a hazardous chemical that is prepared in accordance with T8 CCR section 5194(g).

*Signal word.*

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.*

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.*

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

*Substance.*

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.

*Trade secret.*

Any confidential formula, pattern, process, device, information, or compilation of information which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. A trade secret shall not include chemical identity information which is readily discoverable through qualitative analysis. Appendix E to T8 CCR section 5194-Definition of Trade Secret sets out the criteria to be used in evaluating trade secrets.

*Use.*

To package, handle, react, or transfer.

*Work area.*

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

*Workplace.*

Any place, and the premises appurtenant thereto, where employment is carried on, except a place the health and safety jurisdiction over which is vested by law in, and actively exercised by, any state or federal agency other than the Division of Occupational Safety and Health (Cal/OSHA), California Department of Industrial Relations, or designee.

## **7.0 LABELS AND OTHER FORMS OF WARNING**

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Manufacturer labels are required to meet the provisions of the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act (18 U.S.C. 1801 et seq.) and regulations issued under that Act by the Department of Transportation.

Employees shall not remove labels on shipped containers or intentionally deface existing labels unless immediately relabeled with the required information. Labels must be legible, in English (other languages may also be included if appropriate), and prominently displayed on the container. Hazard communication labeling is not required when decanting for immediate use.

Containers of hazardous chemicals in the workplace shall be labeled, tagged or marked with the product identifier with signal word, hazard statement(s), pictogram(s), precautionary statement(s), symbols; or product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

## **8.0 SAFETY DATA SHEETS**

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Each Department subject to the applicability of CCR T8 section 5194 shall maintain a copy of the SDS for each hazardous substance used or stored by the department. Departments shall ensure that this information is readily accessible during each work shift to employees when they are in their work area(s). Each SDS shall be in English and shall contain safety information in lay terms about the product.

Electronic copies are permitted as long as there are no restrictions to "immediate employee access in each workplace". The RM&SS dept. will instruct users how to access SDS' from UNHCems, the chemical inventory database. User may opt to keep hardcopies in binders, instead of using the online system which can be downloaded and printed out from the chemical inventory which pertains to the chemicals in the immediate work area.

Additionally, a download of all SDS's in each work areas, should be maintained on an external hard drive for access in case the database is inaccessible. Additional product specific safety information may be obtained electronically through the QR code on the manufacturer's label when available.

If a SDS is not provided by a manufacturer and a copy cannot be obtained from the manufacturer or download off the internet, contact RM&SS for assistance.

## **9.0 EMPLOYEE INFORMATION AND TRAINING**

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The University shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard is introduced into their work area. Information and training may relate to general classes of hazardous chemicals to the extent appropriate and related to reasonably foreseeable exposures of the job.

Chemical-specific information shall be communicated through labels and safety data sheets, and at minimum, awareness training on the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Employees shall be informed of any operations in their work area where hazardous chemicals are present, list(s) of hazardous chemicals and safety data sheets for chemicals in their work area and the location and availability of the written hazard communication program.

Employees shall be trained on the content of the hazard communication program, including an explanation of the labels received on shipped containers, the workplace labeling system, the safety data sheet, and how employees can obtain and use the appropriate hazard information.

Employees shall be trained in the physical and health hazards, simple asphyxiation, as well as hazards not otherwise classified, of the chemicals in the work area, and the measures they can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

Employees shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).

The University shall inform employees of the right to personally receive information regarding hazardous chemicals to which they may be exposed; for their physician or collective bargaining agent to receive information regarding hazardous chemicals to which the employee may be exposed; against discharge or other discrimination due to the employee's exercise of the rights afforded pursuant to the provisions of the Hazardous Substances Information and Training Act; and whenever the employer receives a new or revised safety data sheet. Such information shall be provided to employees on a timely basis (not to exceed 30 days after receipt) if the new information indicates significantly increased risks to, or measures necessary to protect, employee health as compared to those stated on a safety data sheet previously provided.

## **10.0 TRADE SECRETS**

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The chemical manufacturer may withhold specific chemical identity of a hazardous chemical or exact percentage and concentration of a substance in a mixture provided that the specific information is a

trade secret and this designation can be supported and the properties and effects of the hazardous chemical are disclosed in the SDS.

Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity and/or specific percentage of composition of a hazardous chemical is necessary for emergency or first-aid treatment, the manufacturer shall immediately disclose the specific chemical identity or percentage composition of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement.

In non-emergency situations, a manufacturer, upon request, shall disclose the specific chemical identity, percentage and composition, otherwise permitted to be withheld under CCR T8 section 5194(i)(1), to a health or safety professional (i.e., physician, nurse, industrial hygienist, safety professional, toxicologist, or epidemiologist) providing medical or other occupational health services to exposed employee(s), and to employees and designated representative if the conditions of 5194(i)(3) are met.

## **11.0 APPENDICES**

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Appendix A - Global Harmonization Standard Reference Guide

## **12.0 Resources and citations**

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Code of Federal Regulations, Title 29, Section 1910.1200.

California Code of Regulations, Title 8, Sections 337-340.2, 5191, 5194 and 5194.1

<http://risksafety.humboldt.edu/chemical-labeling>

<http://risksafety.humboldt.edu/chemical-inventory>

## APPENDIX A: Reference Guide: Global Harmonization Standard

**Training:** Employer is required to train employees so they can recognize and understand the new **safety data sheets, labels, pictograms, hazard and precautionary statements.**

**Pictograms:** OSHA's required pictograms must be in the shape of a square set at a point and include a black hazard symbol on a white background with a red frame sufficiently wide enough to be clearly visible.



Acutely Toxic



Gases Under Pressure



Oxidizer



Flammables  
Self-Reactive  
Pyrophoric  
Self-Heating  
Emits Flammable Gas  
Organic Peroxides



Corrosive



Carcinogen  
Reproductive Toxicity  
Target Organ Toxicity  
Mutagenicity  
Aspiration Toxicity



Environmental Toxicity



Explosives  
Self-Reactive  
Organic Peroxides



Irritant  
Dermal Sensitizer  
Acute Toxicity (harmful)  
Narcotic Effects  
Respiratory Tract Irritation



### Material Safety Data Sheets now Safety Data Sheets (SDS):

They include 16 specific sections that will be consistent across all manufacturers. Each section is outlined below.

**Section 1: Identification of the substance or mixture and of the supplier:** Consist of a product identifier (the same one used on the GHS label), supplier or manufacture details, recommendations and restrictions of use, and an emergency telephone number.

**Section 2: Hazards identification:** Consists of the GHS classification of the substance and/or mixture, as well as any national or local information. GHS label elements, such as symbols (can be provided with the written name of the symbol or pictogram), precautionary statements and other hazards not covered by the GHS can also be provided in this section.

**Section 3: Composition/Information on ingredients:** Contains the chemical identity, common name and synonyms of the given substance and/or mixture. The chemical identity and concentration of all hazardous ingredients will be provided for all hazardous mixtures. CAS numbers, EC numbers, impurities and stabilizing additives should also be provided in this section.

**Section 4: First aid measures:** Consists of descriptions for necessary measures that are subdivided according to the most important symptoms/effects from different routes of exposure, such as, inhalation, skin and eye contact and ingestion.

**Section 5: Firefighting measures:** Consists of suitable extinguishing media and special protective equipment and precautions for firefighters, as well as any specific hazards arising from the chemical.

**Section 6: Accidental release measures:** Includes personal precautions, protective equipment and emergency procedures. Environmental precautions, methods and materials for containment and cleaning up are available in this section.

**Section 7: Handling and storage:** Contains precautions for safe handling and conditions for safe storage, including any incompatibilities with other chemicals.

**Section 8: Exposure controls/personal protection.** Includes control parameters, such as, occupational exposure limits or biological limits. Appropriate engineering controls and individual protection measures, such as protective equipment is provided in this section as well.

**Section 9: Physical and chemical properties:** This section contains the physical and chemical properties, such as, appearance, odor, pH level, melting point/freezing point and flash point

**Section 10: Stability and reactivity:** Contains information on the chemical stability and possible hazardous reactions.

**Section 11: Toxicological information:** Consist of a full and clear description of various health effects and the information one needs to know in order to identify the side effects.

**Section 12: Ecological information:** Includes any adverse effects on the environment such as ecotoxicity and degradability.

**Section 13: Disposal considerations:** Include a description of waste remains and information on safe disposal.

**Section 14: Transport information:** Contains information such as the UN number, shipping name and the transport hazard class or classes.

**Section 15: Regulatory information:** Consists of any specific regulations for the identified product.

**Section 16: Other information:** Contains any other information, such as preparation and revision of the SDS.

<u>Signal Words:</u>	<u>Hazard Statements</u>	<u>Precautionary Statements</u>
Alerts the user to a potential hazard and indicates the severity of the hazard. DANGER and WARNING are only two signal words. ----- ---- <b>Danger:</b> Used to indicate a more severe hazard class <b>Warning:</b> Used to indicate a less severe hazard class	Describes the nature and degree of the hazard EXAMPLE: "Causes damage to the kidney's through prolonged or repeated exposure when absorbed through the skin." EXAMPLE: "Keep/store away from clothing/combustible materials"	Describes recommended measures that should be taken to minimize or prevent adverse effects resulting from the exposure to a hazardous chemical.

### EXAMPLE: Chemical Labeling using GHS

<p><b>PRODUCT IDENTIFIER</b></p> <p>Universal Product Code</p> <p><b>SIGNAL WORD</b> 1</p> <p>Hazard statement 3</p> <p>Precautionary statements &amp; pictograms 4</p> <p>Fill Weight: Lot Number: Gross Weight: Fill Date: Expiration Date:</p> <p>5 Company Name, Street Address, City, State, Zip, Country, Phone Number, Emergency Phone</p>		<p>(2) <b>GHS pictogram:</b> 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. Each pictogram consists of a different symbol on a white background within a red square frame set on a point (i.e., a red diamond).</p> <p>(3) <b>Hazard statement:</b> 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.</p> <p>(4) <b>Precautionary statement:</b> a phrase that describes recommended measures to minimize or prevent adverse effects resulting from exposure to a hazardous chemical; or improper storage or handling of a hazardous chemical</p> <p>(5) <b>Supplier identification:</b> The name, address and telephone number of the manufacturer or supplier of the substance or mixture should be provided on the label.</p>
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(1) **Harmonized signal word:** a single 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 are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for less severe hazards.