

**AGRICULTURE AND NATURAL RESOURCES
ENVIRONMENTAL HEALTH & SAFETY**

HAZARD COMMUNICATION PROGRAM

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ENVIRONMENTAL HEALTH & SAFETY
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ATTACHMENTS: California Code of Regulations Title 8, Section 5194
Safety Note 21
Safety Note 48

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I. INTRODUCTION

The University of California, Agriculture and Natural Resources (ANR) is committed to providing every employee a safe and healthy work environment. Evaluating and communicating potential hazardous substances in the workplace is an important component in establishing and maintaining a safe and healthy work environment. The following written Hazard Communication Program has been developed to comply with California Code of Regulations (CCR) Title 8, Section 5194. It is designed to help maintain a healthy work environment by increasing employee awareness of hazardous workplace substances, including chemicals, compressed gasses, asbestos, vehicle batteries, fuels, solvents and disinfectants, and their potential health effects, safe work practices, and emergency procedures. The Hazard Communication Program encompasses all use of hazardous substances within ANR except the following (CCR, Title 8, Section 5194(b)(5)):

- Laboratory reagents if there is a Chemical Hygiene Plan;
- Hazardous waste regulated by the Environmental Protection Agency (42 U.S.C. 6901 et seq.)
- Tobacco or tobacco products;
- Wood or wood products which will not be saved or processed;
- Foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace;
- Pesticides*; or
- Work operations where employees only handle substances in sealed containers which are not opened.

* **Note:** CCR, Title 3, Section 6723 "Hazard Communication for Pesticide Handlers" requires a copy of a completed Written Hazard Communication Information for Employees Handling Pesticides in Agricultural Settings (Pesticide Safety Information Series leaflet A-8) to be complied with and on display.

II. POLICY

ANR is committed to assuring employees and other personnel conduct activities within safe work environments at all facilities. Accordingly, ANR has implemented this program to maintain compliance with the state regulatory program for hazardous communication (CCR, Title 8, Section 5194(e)).

III. SCOPE

Components of the Hazard Communication Program include:

- List of hazardous chemicals.
- Labeling of hazardous chemicals.
- Material Safety Data Sheets (MSDS).
- Information and training.
- Non-routine hazardous tasks.
- Contractors and their employees.

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IV. PURPOSE

The purpose of this written program is to ensure that education and training is provided for all employees who are or potentially may be exposed to hazardous substances in the work place. This training shall be conducted prior to the first exposure to the substance/s (during on-the-job orientation and training), whenever a new hazardous substance is introduced into the work place and when there are changes to this plan. All employees will be informed of the location of the written Hazard Communication Program, hazardous substance listing and MSDS.

V. RESPONSIBILITY

The director or supervisor for each ANR location is responsible for ensuring that the requirements of this program are met, including maintaining an inventory, MSDS binder and training (CCR, Title 8, Section 5194(b)(1)). The safety coordinator for each ANR location will assist in the implementation of this program. Employees are responsible for adhering to precautions outlined on container labels and MSDS. In addition, employees are to utilize hazardous information sources and request training when working with unfamiliar substances. The office of Environmental Health & Safety (EH&S) for ANR will provide resources to aid in compliance including forms, training materials and access to MSDS sources.

VI. LIST OF HAZARDOUS SUBSTANCES

Each ANR location will maintain a list that identifies current hazardous substances present in the workplace (CCR, Title 8, Section 5194(e)(1)(A)). This list must be updated as hazardous substances are added or deleted and must be reviewed periodically (at least annually). The list shall be kept with this written program and with MSDS book(s) at each location, and serves as an index to aid employees in identifying and locating necessary information. This list should be compiled as an item-by-item inventory. Unless all items are included in this list, it is possible that some hazardous substances could be overlooked.

The list should include the following:

- The chemical and trade names.
- The manufacturer's name.
- Location (such areas as maintenance, shops, agricultural operations, laboratories, storage, etc.).
- Quantities.

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VII. CONTAINER LABELING

ANR Supervisors have the responsibility to verify:

- That all chemical containers received, used or stored at their location are clearly labeled as to the contents and appropriate hazard warnings (CCR, Title 8, Section 5194(f)(4)).
- No containers will be released for use until the above data is verified.
- Labels on containers will not be removed until the container is empty (all residues have been removed from the container).
- Pesticides are labeled according to the Federal Insecticide, Fungicide and Rodenticide Act (no additional labeling is required according to the regulations; however, all pesticide containers must be labeled).
- CCR, Title 8, Section 5194(f)(4) requires that secondary containers will have the name of the substance and applicable hazards warnings labeled on the outside of the container.
- If a secondary container is too small to practically place a label with contents and hazard information then the secondary container shall be placed inside a plastic bag along with a printed label that contains this information.

All employees who transfer hazardous chemicals into portable containers (such as bottles, spray bottles, parts cleaning cans, etc) will ensure the containers are appropriately labeled and the contents identified (CCR, Title 8, Section 5194(f)(5)).

VIII. MATERIAL SAFETY DATA SHEETS

It is the responsibility of ANR supervisors to obtain necessary MSDS for all hazardous substances (including pesticides) so a current MSDS file or binder can be maintained in current status. This repository should be periodically checked and updated to ensure a current MSDS for each hazardous substance is on file. The primary repository of this information will be maintained at each location administrative office or headquarters. In addition, copies of the MSDS for all hazardous substances to which employees may be exposed to may be kept using an online MSDS service. Employees will be trained on how to operate devices for retrieval and printing of legible hard copies. The MSDS file will be readily available for review by all employees during each work shift. MSDS sheets must be made available to anyone requesting them for thirty (30) years after a hazardous substance is no longer in use. If a MSDS is not available one will be requested from the vendor or manufacturer (CCR, Title 8, Section 5194(g)). If the vendor or manufacture does not provide a MSDS within 25 calendar days of the request, contact ANR EH&S for assistance.

In the event of an employee exposure to a hazardous substance, a copy of that substance's MSDS shall be sent with the employee to the health care facility or sent separately to the health care facility. This can aid in the employee's treatment to the exposure.

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IX. INFORMATION AND TRAINING

Employees will be provided information and training on any operations in their work area where hazardous substances are present, and the location of the written Hazard Communication Program, hazardous substance listing, and MSDS (CCR, Title 8, Section 5194(h)). Training may be internet based, classroom based, or on-the-job, and presented prior to exposure to hazardous substances. Information and training may be designed to encompass categories of hazards (flammability, toxicity, etc.) or specific substances. Substance-specific information must always be available through labels and MSDS. Training attendance must be documented.

Employee training will include at least the following:

- Details of the Hazard Communication Program, including the location of this plan, the list of hazardous substances and labeling of hazardous substances.
- Methods and observations that are in place or may be used to detect the presence or release of a hazardous substance in the work area.
- The physical and health hazards of substances in the work area.
- The measures employees can take to protect themselves from the hazards, such as work practices, emergency procedures, and personal protective equipment.
- The location of MSDS, how employees can obtain, read, understand and use appropriate hazard information.
- Labeling, signage, placards, ext.
- Emergency and first-aid procedures to follow if employees are exposed to hazardous substances.
- Copies of the Pesticide Safety Information Series leaflets for employees who work with or handle pesticides (CCR, Title 3, Section 6723).
- The location and interpretation, if needed, of warning signs or placards.

If an employee is instructed to use a hazardous substance for which he/she has not been trained, it will be their responsibility to inform the employer prior to handling such material, so proper training can be provided.

Safety Notes [#21 Material Safety Data Sheets](#) and [#48 Hazard Communication Awareness](#), Safety Video E/S-035, and online training may be used for general hazard communication training. General hazard communication training must also be supplemented with location-specific information such as the hazardous substances that are present, location of MSDS and emergency medical procedures. Safety Notes and safety training videos are available from the ANR EH&S website (<http://safety.ucanr.org>) on numerous related topics such as personal protective equipment, laboratory safety, eye protection, fume hood use, and spill response. ANR locations should use these resources and their local information in training their employees. A signed record of training for employees will be kept in the workplace.

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X. NON-ROUTINE HAZARDOUS TASKS

Since many tasks are not done on a routine basis they will be handled through specific pre-task actions and training. Before performing non-routine tasks, the supervisor in charge will review applicable MSDS; instruct employees in the associated hazards and recommended first aid treatment; and assure all essential personal protective and emergency equipment is available and operational (CCR, Title 8, Section 5194 (e)(1)(B)). Supervisors will notify all other employees working in this area that non-routine tasks are scheduled and/or being performed.

XI. CONTRACTORS AND THEIR EMPLOYEES

Any contractors working in an ANR facility or jobsite in areas where they may be exposed to hazardous substances will be informed of the written Hazard Communication Program and where to locate MSDS (CCR, Title 8, Section 5194 (e)(2)). It will be the responsibility of the contractor to properly train their employees in their hazard communication and/or emergency procedures for these substances.

In addition, contractors working on an ANR facility are required to provide a list of hazardous substances and make available copies of all MSDS for hazardous substances they are bringing on the jobsite so the information is accessible to all employees. It is preferable to have each subcontractor bring their MSDS in a binder labeled with the contractor's name.

§ 5194. Hazard Communication.

(a) (Reserved)

(b) Scope and Application.

- (1) This section requires manufacturers or importers to assess the hazards of substances which they produce or import, and all employers to provide information to their employees about the hazardous substances to which they may be exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers.
- (2) This section 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.
- (3) This section applies to laboratories that primarily provide quality control analyses for manufacturing processes or that produce hazardous substances for commercial purposes, and to all other laboratories except those under the direct supervision and regular observation of an individual who has knowledge of the physical hazards, health hazards, and emergency procedures associated with the use of the particular hazardous substances involved, and who conveys this knowledge to employees in terms of safe work practices. Such excepted laboratories must also ensure that labels of incoming containers of hazardous substances are not removed or defaced pursuant to section 5194(f)(4), and must maintain any material safety data sheets that are received with incoming shipments of hazardous substances and ensure that they are readily available to laboratory employees pursuant to section 5194(g).
- (4) This section does not require labeling of the following substances:
 - (A) Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;
 - (B) Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device, including materials intended for use as ingredients in such products (e.g., flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) and regulations issued under that Act, when they are subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Food and Drug Administration;
 - (C) 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, and Firearms; and;
 - (D) Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission.
- (5) This section does not apply to:
 - (A) Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency;
 - (B) Tobacco or tobacco products;
 - (C) Wood or wood products including lumber which will not be processed, where the manufacturer or importer can establish that

the only hazard they pose to employees is the potential for flammability or combustibility (non-excluded hazardous substances which are used in conjunction with wood or wood products, or are known to be present as impurities in those materials, and wood which may be subsequently sawed or cut, generating dust, are covered by this section);

- (D) Articles (hazardous substances used in the manufacture or use of an article are covered by this section unless otherwise excluded);
 - (E) Foods, drugs, or cosmetics intended for personal consumption by employees while in the workplace;
 - (F) Retail food sale establishments and all other retail trade establishments, exclusive of processing and repair work areas;
 - (G) 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;
 - (H) The use of a substance in compliance with regulations of the Director of the Department of Pesticide Regulation issued pursuant to section 12981 of the Food and Agricultural Code.
 - (I) Work operations where employees only handle substances in sealed containers which are not opened under normal conditions of use (such as are found in marine cargo handling, warehousing, or transportation); however, this section does apply to these operations as follows:
 1. Employers shall ensure that labels on incoming containers of hazardous substances are not removed or defaced;
 2. Employers shall maintain copies of any material safety data sheets that are received with incoming shipments of the sealed containers of hazardous substances, shall obtain a material safety data sheet for sealed containers of hazardous substances received without a material safety data sheet if an employee requests the material safety data sheet, and shall ensure that the material safety data sheets are readily accessible during each work shift to employees when they are in their work area(s); and,
 3. Employers shall ensure that employees are provided with information and training in accordance with subsection (h) except for the location and availability of the written hazard communication program under subsection (h)(2)(C), to the extent necessary to protect them in the event of a spill or leak of a hazardous substance from a sealed container.
- (6) Proposition 65 Warnings.
- (A) Notwithstanding any other provision of law including the preceding subsections, an employer which is a person in the course of doing business within the meaning of Health and Safety Code Section 25249.11(a) and (b), is subject to the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65 or the "Act") (Health and Safety Code § 25249.5 et seq.), and shall comply with the Act in the manner set forth in subsections (B) and (C) below. The following employers are not subject to the Act:
 1. an employer employing fewer than ten employees;
 2. any city, county, or district or any department or agency thereof or the state or any department or agency thereof or the federal government or any department or agency thereof;
 3. any entity in its operation of a public water system as defined in Health and Safety Code Section 4010.1.
 - (B) Exposures Subject to Proposition 65 and Hazard Communication. Before exposing any employee to any hazardous substance that otherwise falls within the scope of this section and which requires a warning under this Act (see 22 CCR Section 12000, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity) except as provided in

subsection (D) below, any employer subject to the Act shall comply with the requirements set forth in subsections (d) through (k). Such compliance shall be deemed compliance with the Act.

(C) Exposures Subject to Proposition 65 Only. Before knowingly and intentionally exposing any employee to any hazardous substance that does not otherwise fall within the scope of the section, but which requires a warning under the Act (see 22 CCR Section 12000, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity) except as provided in subsection (D) below, any employer subject to the Act shall either provide a warning to employees in compliance with California Code of Regulations Title 22 (22 CCR) Section 12601(c) in effect on May 9, 1991 or shall comply with the requirements set forth in subsections (d) through (k).

(D) Exposures Not Subject to Proposition 65. A warning required by subsection (B) and (C) above shall not apply to any of the following:

1. An exposure for which federal law governs warning in a manner that preempts state authority.
2. An exposure that takes place less than twelve months subsequent to the listing of the chemical in 22 CCR Section 12000.
3. An exposure for which the employer responsible can show that the exposure poses no significant risk assuming lifetime exposure at the level in question for the chemicals known to the State to cause cancer, and that the exposure will have no observable effect assuming exposure at one thousand (1,000) times the level in question for chemicals known to the State to cause reproductive toxicity, based on evidence and standards of comparable scientific validity to the evidence and standards which form the scientific basis for the listing of such chemical in 22 CCR Section 12000. In any enforcement action the burden of showing that an exposure meets the criteria of this subsection shall be on the employer.

(E) Additional Enforcement of Proposition 65. In addition to any other applicable enforcement provision, violations or threatened violations of the Act may be enforced in the manner set forth in Health and Safety Code Section 25249.7 for violations and threatened violations of Health and Safety Code Section 25249.6. Compliance with 22 CCR Section 12601(c) in effect on May 9, 1991 shall be deemed a defense to an enforcement action under Health and Safety Code Section 25249.7.

(F) All terms and provisions of subsection (b)(6) shall have the same meaning as the following 22 CCR Sections in effect on May 9, 1991: 12201(a), 12201(b), 12201(c), 12201(d), 12201(f), 12201(k), 12502, 12601, 12701(a), 12701(b), 12701(d), 12703, 12705, 12707, 12709, 12711, 12721, 12801, 12803, 12805, 12821 and 12901. The above listed 22 CCR Sections in effect on May 9, 1991 are printed in Appendix E to this section. Additionally, all terms and provisions of subsection (b)(6) shall have the same meaning as in the Act and in 22 CCR Section 12000.

(c) Definitions.

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 substance 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 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 substance for the purpose of conducting a hazard evaluation.

Chief.

The Chief of the Division of Occupational Safety and Health, P.O. Box 420603, San Francisco, CA 94142, or designee.

Combustible liquid.

Any liquid having a flashpoint at or above 100°F (37.8°C), but below 200°F (93.3°C), except any mixture having components with flashpoints of 200°F (93.3°C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common name.

Any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a substance other than by its chemical name.

Compressed gas.

Compressed gas means:

- (A) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); or
- (B) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130°F (54.4°C) regardless of the pressure at 70°F (21.1°C); or
- (C) A liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

Container.

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

Department.

The Department of Industrial Relations, P.O. Box 420603, San Francisco, CA 94142, or designee.

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.

Director.

The Director of Industrial Relations, P.O. Box 420603, San Francisco, CA 94142, or designee.

Distributor.

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

Division.

The Division of Occupational Safety and Health (Cal/OSHA), California Department of Industrial Relations, or designee.

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 substance 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.

Explosive.

A substance that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

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 substance.

Flammable.

A substance that falls into one of the following categories:

- (A) Aerosol, flammable. An aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;
- (B) Gas, flammable:
 - 1. A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent of volume or less; or
 - 2. A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;
- (C) Liquid, flammable. Any liquid having a flashpoint below 100°F (37.8°C), except any mixture having components with flashpoints of 100°F (37.8°C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.
- (D) Solid, flammable. A solid, other than a blasting agent or explosive as defined in section 5237(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint.

The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

- (A) Tagliabue Closed Tester (see American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D 56-79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100°F (37.8°C), that do not have a tendency to form a surface film under test; or
- (B) Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100°F (37.8°C), or that have a tendency to form a surface film under test; or
- (C) Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).

Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

Hazard warning.

Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the health hazards and physical hazards of the substance(s) in the container(s).

Hazardous substance.

Any substance which is a physical hazard or a health hazard or is included in the List of Hazardous Substances prepared by the Director pursuant to Labor Code section 6382.

Health hazard.

A substance for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes substances which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a substance is to be considered hazardous for purposes of this standard.

Identity.

Any chemical or common name which is indicated on the material safety data sheet (MSDS) for the substance. The identity used shall permit crossreferences to be made among the required list of hazardous substances, the label and the MSDS.

Immediate use.

The hazardous substance 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 substances produced in other countries for the purpose of supplying them to distributors or purchasers within the United States.

Label.

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

Manufacturer.

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

Material safety data sheet (MSDS).

Written or printed material concerning a hazardous substance which is prepared in accordance with section 5194(g).

Mixture.

Any solution or intimate admixture of two or more substances, at least one of which is present as a hazardous substance, which do not react chemically with each other.

NIOSH.

The National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services.

Organic peroxide.

An organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer.

A substance other than a blasting agent or explosive as defined in section 5237(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard.

A substance for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Produce.

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

Pyrophoric.

A substance that will ignite spontaneously in air at a temperature of 130°F (54.4°C) or below.

Responsible party.

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

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.

Any element, chemical compound or mixture of elements and/or compounds.

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 D sets out the criteria to be used in evaluating trade secrets.

Unstable (reactive).

A substance which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use.

To package, handle, react, or transfer.

Water-reactive.

A substance that reacts with water to release a gas that is either flammable or presents a health hazard.

Work area.

A room or defined space in a workplace where hazardous substances 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.

(d) Hazard Determination.

- (1) Manufacturers and importers shall evaluate substances produced in their workplaces or imported by them to determine if they are hazardous. Employers are not required to evaluate substances unless they choose not to rely on the evaluation performed by the manufacturer or importer for the substance to satisfy this requirement.
- (2) Manufacturers, importers, or employers evaluating substances shall identify and consider the available scientific evidence concerning such hazards. For health hazards, evidence which is statistically significant and which is based on at least one positive study conducted in accordance with established scientific principles is considered to be sufficient to establish a hazardous effect if the results of the study meet the definitions of health hazards in this section. Appendix A shall be consulted for the scope of health hazards covered, and Appendix B shall be consulted for the criteria to be followed with respect to the completeness of the evaluation, and the data to be reported.

- (3) The manufacturer, importer, or employer evaluating substances shall treat any of the following sources as establishing that the substances listed in them are hazardous:

- (A) The list of hazardous substances prepared by the Director pursuant to Labor Code section 6382 and as promulgated in title 8, California Code of Regulations, section 339. The concentrations and footnotes which are applicable to the list shall be understood to modify the same substance on all other source lists or hazard determinations set forth in sections 5194(d)(3)(B)-5194(d)(5)(D).
- (B) 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).
- (C) Threshold Limit Values for Chemical Substances in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH) (latest edition).

The manufacturer, importer, or employer is still responsible for evaluating the hazards associated with the substances in these source lists in accordance with the requirements of the standard.

- (4) Manufacturers, importers, and employers evaluating substances shall treat any of the following sources as establishing that a substance is a carcinogen or potential carcinogen for hazard communication purposes:

- (A) National Toxicology Program (NTP), Annual Report on Carcinogens, (latest edition).
- (B) International Agency for Research on Cancer (IARC) Monographs (latest editions).
- (C) 29 CFR Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.

Note to (d)(4): The Registry of Toxic Effects of Chemical Substances published by the National Institute for Occupational Safety and Health indicates whether a substance has been found by NTP or IARC to be a potential carcinogen.

- (5) The manufacturer, importer, or employer shall determine the hazards of mixtures of substances as follows:

- (A) If a mixture has been tested as a whole to determine its hazards, the results of such testing shall be used to determine whether the mixture is hazardous;
- (B) If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under section 5194(d)(4);
- (C) If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and
- (D) If the manufacturer, importer, or employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established permissible exposure limit or ACGIH Threshold Limit Value, or could present a health hazard to employees in those concentrations, the mixture shall be assumed to present the same hazard.

(6) Manufacturers, importers, or employers evaluating hazardous substances shall describe in writing the procedures they use to determine the hazards of the substance they evaluate. The written procedures are to be made available, upon request, to employees, their designated representatives, the Director, and NIOSH. The written description may be incorporated into the written hazard communication program required under section 5194(e).

(e) Written Hazard Communication Program.

(1) Employers shall develop, implement, and maintain at the workplace a written hazard communication program for their employees which at least describes how the criteria specified in sections 5194(f), (g), and (h) for labels and other forms of warning, material safety data sheets, and employee information and training will be met, and which also includes the following:

(A) A list of the hazardous substances known to be present using an identity that is referenced on the appropriate material safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas);

(B) The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with substances contained in unlabeled pipes in their work areas.

(2) In multi-employer workplaces, the written hazard communication program shall include the methods employers will use to inform any employers sharing the same work area of the hazardous substances to which their employees may be exposed while performing their work, and any suggestions for appropriate protective measures, including the following:

(A) The methods the employer will use to provide the other employer(s) with access to the material safety data sheet, or to make it available at a central location in the workplace, for each hazardous substance the other employer(s)' employees may be exposed to while working;

(B) The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,

(C) The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

(3) The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Chief, and NIOSH, in accordance with the requirements of section 3204(e).

(f) Labels and Other Forms of Warning.

(1) The manufacturer, importer, or distributor shall ensure that each container of hazardous substances leaving the workplace is labeled, tagged or marked with the following information:

(A) Identity of the hazardous substance(s);

(B) Appropriate hazard warnings; and

(C) Name and address of the manufacturer, importer, or other responsible party.

Exception to (f)(1): For solid metal (such as a steel beam or a metal casting) that is not exempted as an article due to its downstream use, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes. The label may be transmitted with the initial shipment itself, or with the material safety data sheet that is to be provided prior to or at the time of the first shipment. This exception to requiring labels on every container of hazardous substances is only for the solid metal itself and does not apply to hazardous substances used in conjunction with, or known to be present with, the metal and to which the employees handling the metal may be exposed (for example, cutting fluids or lubricants).

(2) Manufacturers, importers, or distributors shall ensure that each container of hazardous substances 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.

(3) If the hazardous substance is regulated by these orders in a substance-specific health standard, the manufacturer, importer, distributor, or employer shall ensure that the labels or other forms of warning used are in accordance with the requirements of that standard.

(4) Except as provided in sections 5194(f)(5) and (f)(6) the employer shall ensure that each container of hazardous substances in the workplace is labeled, tagged, or marked with the following information:

(A) Identity of the hazardous substance(s) contained therein; and

(B) Appropriate hazard warnings.

(5) The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by section 5194(f)(4) to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each work shift. In construction, the employer may use such written materials in lieu of affixing labels to individual containers as long as the alternative method identifies and accompanies the containers to which it is applicable and conveys the information required to be on a label.

(6) The employer is not required to label portable containers into which hazardous substances are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. In construction, the employer is not required to label portable containers into which hazardous substances are transferred from labeled containers, so long as either the labeled container stays on the jobsite or the employer has complied with section 5194(f)(5).

(7) The employer shall not remove or intentionally deface existing labels on incoming containers of hazardous substances, unless the container is immediately marked with the required information.

(8) The employer shall ensure that labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.

(9) The manufacturer, importer, distributor, or employer need not affix new labels to comply with this section if existing labels already convey the required information.

(10) Manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a substance shall revise the labels for the substance within three months of becoming aware of the new information. Labels on containers of hazardous substances shipped after that time shall contain the new information. If the substance is not currently produced or imported, the manufacturer, importer, distributor, or employer shall add the information to the label before the substance is shipped or introduced into the workplace again.

(g) Material Safety Data Sheets.

(1) Manufacturers and importers shall obtain or develop a material safety data sheet for each hazardous substance they produce or import. Employers shall have a material safety data sheet for each hazardous substance which they use.

Note to (g)(1): Employers should also refer to section 3204 concerning information to be retained after a particular substance is no longer in use.

- (2) Each material safety data sheet shall be in English (although the employer may maintain copies in other languages as well) and shall contain at least the following information:
- (A) The identity used on the label, and, except as provided for in section 5194(i) on trade secrets:
1. If the hazardous substance is a single substance, its chemical and common name(s) and CAS number(s);
 2. If the hazardous substance is a mixture which has been tested as a whole to determine its hazards, the chemical, common name(s), and CAS number(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or,
 3. If the hazardous substance is a mixture which has not been tested as a whole:
 - a. The chemical and common name(s), and CAS number(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that substances identified as carcinogens under subsection 5194(d)(4) shall be listed if the concentrations are 0.1% or greater;
 - b. The chemical and common name(s), and CAS number(s) of all ingredients which comprise less than 1% (0.1% for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health hazard to employees; and,
 - c. The chemical, common name(s), and CAS number(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;
- (B) Physical and chemical properties of the hazardous substance (such as vapor pressure, flash point);
- (C) The physical hazards of the hazardous substance, including the potential for fire, explosion, and reactivity;
- (D) The health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the substance;
- (E) The potential route(s) of entry;
- (F) The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the manufacturer, importer, or employer preparing the material safety data sheet, where available.
- (G) Whether the hazardous substance is listed in the National Toxicology Program (NTP) Annual Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, (latest editions), or by OSHA;
- (H) Any generally applicable precautions for safe handling and use which are known to the manufacturer, importer, or employer preparing the material safety data sheet, including the appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for cleanup of spills and leaks;
- (I) Any generally applicable control measures which are known to the manufacturer, importer or employer preparing the material safety data sheet, such as appropriate engineering controls, work practices, or personal protective equipment;
- (J) Emergency and first-aid procedures;
- (K) The date of preparation of the material safety data sheet or the last change to it;
- (L) The name, address and telephone number of the manufacturer, importer, employer, or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary; and,
- (M) A description in lay terms, if not otherwise provided, on either a separate sheet or with the body of the information specified in this section, of the specific potential health risks posed by the hazardous substance intended to alert any person reading the information.
- (3) If no relevant information is found for any given category on the material safety data sheet, the manufacturer, importer, or employer preparing the material safety data sheet shall mark it to indicate that no information was found. If the category is not applicable to the hazardous substance involved, the space shall be marked to indicate that.
- (4) Where complex mixtures have similar hazards and contents (i.e. the chemical ingredients are essentially the same, but the specific composition varies from mixture to mixture), the manufacturer, importer or employer may prepare one material safety data sheet to apply to all of these similar mixtures.
- (5) The manufacturer, importer or employer preparing the material safety data sheet shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If the manufacturer, importer, or employer become aware of any significant information regarding the hazards of a substance, or ways to protect against the hazards, this new information shall be added to the material safety data sheet within three months. If the substance is not currently being produced or imported, the manufacturer or importer shall add the information to the material safety data sheet before the substance is introduced into the workplace again.
- (6) Manufacturers or importers shall ensure that distributors and purchasers of hazardous substances are provided an appropriate material safety data sheet with their initial shipment, and with the first shipment after a material safety data sheet is updated. The manufacturer or importer shall either provide material safety data sheets with the shipped containers or send them to the purchaser prior to or at the time of the shipment. If the material safety data sheet is not provided with the shipment, the purchaser shall obtain one from the manufacturer, importer, or distributor as soon as possible. The manufacturer or importer shall also provide distributors or employers with a material safety data sheet upon request.
- (7) Distributors shall ensure that material safety data sheets, and updated information, are provided to other distributors and purchasers of hazardous substances.
- (8) The employer shall maintain copies of the required material safety data sheets for each hazardous substance in the workplace, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)
- (9) Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the material safety data sheets may be kept at a central location at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

- (10) Material safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous substances in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous substances. However, the employer shall ensure that in all cases the required information is provided for each hazardous substance, and is readily accessible during each work shift to employees when they are in their work area(s).
- (11) Material safety data sheets shall also be made readily available, upon request, to designated representatives, and to the Chief, in accordance with the requirements of section 3204(e). NIOSH and the employee's physician shall also be given access to material safety data sheets in the same manner.
- (12) If the material safety data sheet, or any item of information required by section 5194(g)(2), is not provided by the manufacturer or importer, the employer shall:
- (A) Within 7 working days of noting this missing information, either from a request or in attempting to comply with section 5194(g)(1), make written inquiry to the manufacturer or importer of a hazardous substance responsible for the material safety data sheet, asking that the complete material safety data sheet be sent to the employer. If the employer has made written inquiry in the preceding 12 months as to whether the substance or product is subject to the requirements of the Act or the employer has made written inquiry within the last 6 months requesting new, revised or later information on the material safety data sheet for the hazardous substance, the employer need not make additional written inquiry.
 - (B) Notify the requester in writing of the date that the inquiry was made, to whom it was made, and the response, if any, received. Providing the requestor with a copy of the inquiry sent to the manufacturer, producer or seller and a copy of the response will satisfy this requirement.
 - (C) Notify the requestor of the availability of the material safety data sheet within 15 days of the receipt of the material safety data sheet from the manufacturer, producer or seller or provide a copy of the material safety data sheet to the requestor within 15 days of the receipt of the material safety data sheet from the manufacturer, producer or seller.
 - (D) Send the Director a copy of the written inquiry if a response has not been received within 25 working days.
- (13) The preparer of a material safety data sheet shall provide the Director with a copy of the material safety data sheet. Where a trade secret claim is made, the preparer shall submit the information specified in section 5194(i)(15).
- (h) Employee Information and Training.
- (1) Employers shall provide employees with effective information and training on hazardous substances in their work area at the time of their initial assignment, and whenever a new hazard is introduced into their work area. Information and training may relate to general classes of hazardous substances to the extent appropriate and related to reasonably foreseeable exposures of the job.
 - (2) Information and training shall consist of at least the following topics:
 - (A) Employees shall be informed of the requirements of this section.
 - (B) Employees shall be informed of any operations in their work area where hazardous substances are present.
 - (C) Employees shall be informed of the location and availability of the written hazard communication program, including the list(s) of hazardous substances and material safety data sheets required by this section.
 - (D) Employees shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous substance in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous substances when being released, etc.).
 - (E) Employees shall be trained in the physical and health hazards of the substances 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 substances, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
 - (F) Employees shall be trained in the details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
 - (G) Employers shall inform employees of the right:
 1. To personally receive information regarding hazardous substances to which they may be exposed, according to the provisions of this section;
 2. For their physician or collective bargaining agent to receive information regarding hazardous substances to which the employee may be exposed according to provisions of this section;
 3. 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.
 - (3) Whenever the employer receives a new or revised material 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 material safety data sheet previously provided.
- (i) Trade Secrets.
- (1) The manufacturer, importer or employer may withhold the specific chemical identity of a hazardous substance from the material safety data sheet, provided that:
 - (A) The claim that the information withheld is a trade secret can be supported;
 - (B) Information contained in the material safety data sheet concerning the properties and effects of the hazardous substance is disclosed;
 - (C) The material safety data sheet indicates that the specific chemical identity is being withheld as a trade secret; and,
 - (D) The specific chemical identity is made available to health or safety professionals, employees, and designated representatives in accordance with the applicable provisions of this subsection.
 - (2) Where a physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous substance is necessary for emergency or first-aid treatment, the manufacturer, importer, or employer shall immediately disclose the specific chemical identity of a trade secret substance to that physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The manufacturer, importer, or employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of sections 5194(i)(3) and (4), as soon as circumstances permit.
 - (3) In non-emergency situations, a manufacturer, importer, or employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under 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 representatives, if:

- (A) The request is in writing;
- (B) The request describes with reasonable detail one or more of the following occupational health needs for the information:
 1. To assess the hazards of the substances to which employees will be exposed;
 2. To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels;
 3. To conduct pre-assignment or periodic medical surveillance of exposed employees;
 4. To provide medical treatment to exposed employees;
 5. To select or assess appropriate personal protective equipment for exposed employees;
 6. To design or assess engineering controls or other protective measures for exposed employees; and,
 7. To conduct studies to determine the health effects of exposure.
- (C) The request explains in detail why the disclosure of the specific chemical identity is essential and that, in lieu thereof, the disclosure of the following information would not enable the health or safety professional, employee or designated representative to provide the occupational health services described in section 5194(i)(3)(B):
 1. The properties and effects of the substance;
 2. Measures for controlling workers' exposure to the substance;
 3. Methods of monitoring and analyzing worker exposure to the substance; and,
 4. Methods of diagnosing and treating harmful exposures to the substance;
- (D) The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and,
- (E) The health or safety professional, employee, or designated representative and the employer or contractor of the health or safety professional's services (i.e., downstream employer, labor organization, or individual employee), agree in a written confidentiality agreement that the health or safety professional, employee, or designated representative will not use the trade secret information for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to the Director, as provided in section 5194(i)(6), except as authorized by the terms of the agreement or by the manufacturer, importer, or employer.
- (4) The confidentiality agreement authorized by section 5194(i)(3)(D) shall not include requirements for the posting of a penalty bond.
- (5) Nothing in this standard is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.
- (6) If the health or safety professional, employee, or designated representative receiving the trade secret information decides that there is a need to disclose it to the Director, then the manufacturer, importer, or employer who provided the information shall be informed by the health or safety professional, employee, or designated representative prior to, or at the same time as, such disclosure.
- (7) If the manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity, the denial must:
 - (A) Be provided to the health or safety professional, employee, or designated representative within thirty days of the request;
 - (B) Be in writing;
 - (C) Include evidence to support the claim that the specific chemical identity is a trade secret;
 - (D) State the specific reasons why the request is being denied; and,
 - (E) Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the specific chemical identity.
- (8) The health or safety professional, employee, or designated representative whose request for information is denied under section 5194(i)(3) may refer the request and the written denial of the request to the Director for consideration.
- (9) When a health or safety professional, employee, or designated representative refers the denial to the Director under section 5194(i)(8), or upon the Director's own initiative when receiving information pursuant to section 5194(g)(13) which is claimed to be a trade secret, the Director shall consider the evidence to determine if:
 - (A) The manufacturer, importer, or employer has supported the claim that the specific chemical identity is a trade secret;
 - (B) The health or safety professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and,
 - (C) The health or safety professional, employee, or designated representative has demonstrated adequate means to protect the confidentiality.
- (10) If the Director determines that the specific chemical identity requested under section 5194(i)(3) is not a bona fide trade secret, or that it is a trade secret but the requesting health or safety professional, employee, or designated representative has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the manufacturer, importer, or employer will be subject to citation by the Director. The Director shall so notify the manufacturer, importer, or employer by certified mail.
- (11) The manufacturer, importer, or employer shall have 15 days after receipt of notification under section 5194(i)(10) to provide the Director with a complete justification and statement of the grounds on which the trade secret privilege is claimed. This justification and statement shall be submitted by certified mail.
- (12) The Director shall determine whether such information is protected as a trade secret within 15 days after receipt of the justification and statement required by section 5194(i)(11), or if no justification and statement is filed, within 30 days of the original notice, and shall notify the employer or manufacturer and any party who has requested the information pursuant to the California Public Records Act of that determination by certified mail. If the Director determines that the information is not protected as a trade secret, the final notice shall also specify a date, not sooner than 15 days after the date of mailing of the final notice, when the information shall be available to the public.
- (13) Prior to the date specified in the final notice provided pursuant to section 5194(i)(12), a manufacturer, importer, or employer may institute an action in an appropriate superior court for a declaratory judgment as to whether such information is subject to protection from disclosure.
- (14) If a manufacturer, importer, or employer demonstrates to the Director that the execution of a confidentiality agreement as provided for by section 5194(i)(10) would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret specific chemical identity, the Director may issue such orders to impose such additional limitations or conditions upon the disclosure of the requested information as may be appropriate to assure that the occupational health services are provided without an undue risk of harm to the manufacturer, importer, or employer.

(15) Notwithstanding the existence of a trade secret claim, a manufacturer, importer, or employer shall disclose to the Director the specific chemical identity of any hazardous substance in a product for which trade secrecy is claimed. Where there is a trade secret claim, such claim shall be made no later than at the time the information is provided to the Director so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

(16) Nothing in section 5194(j) shall be construed as requiring the disclosure under any circumstances of process or percentage of mixture information which is a trade secret.

(j) Appendices.

(1) Appendices A, B, and D to this section are incorporated as part of this section and the provisions are mandatory.

(2) Appendix C contains information which is not intended to create any additional obligations not otherwise imposed or to detract from any existing obligation.

(3) Appendix E contains the following 22 CCR Sections: 12201(a), 12201(b), 12201(c), 12201(d), 12201(f), 12201(k), 12502, 12601, 12701(a), 12701(b), 12701(d), 12703, 12705, 12707, 12709, 12711, 12721, 12801, 12803, 12805, 12821, and 12901 in effect on May 9, 1991 that are referred to in subsection (b)(6).

*Note: Authority cited: Sections 50.7, 142.3 and 6398, Labor Code.
Reference: Sections 50.7, 142.3 and 6361-6399.7, Labor Code; Sections 25249.6, 25249.7, 25249.8, 25249.10, 25249.11, 25249.12 and 25249.13, Health and Safety Code; Authority cited: Sections 50.7, 142.3 and 6398, Labor Code. Reference: Sections 50.7, 142.3 and 6361-6399.7, Labor Code; Sections 25249.6, 25249.7, 25249.8, 25249.10, 25249.11, 25249.12 and 25249.13, Health and Safety Code; California Lab. Federation v. Occupational Safety and Health Stds. Bd. (1990) 221 Cal.App.3d 1547 [271 Cal. Rptr. 310]; and United Steelworkers of America v. Auchter (3d Cir. 1985) 763 F.2d 728.*

HISTORY

1. New section filed 12-9-81; designated effective 180 days following adoption of a list of hazardous substances pursuant to the Act by the Director, Department of Industrial Relations (Register 81, No. 50).

2. Repealer and new section (including appendices A-C) filed 11-22-85; designated effective 11-25-85 pursuant to Government Code section 11346.2(d) (Register 85, No. 47).

3. Order of Repeal of subsection (a) pursuant to Government Code section 11342(b), amendment, and new appendix D filed 5-26-87; operative 6-25-87 (Register 87, No. 23).

4. Change without regulatory effect removing chapter heading filed 3-6-91; operative 4-4-91 (Register 91, No. 15).

5. Change without regulatory effect repealing Article 110 heading "Special Hazardous Substances and Processes" filed 3-6-91 pursuant to section 100, title 1, California Code of Regulations (Register 91, No. 15).

6. New subsections (b)(6)(A)-(E) and (k)(3) filed 5-31-91 as an emergency; operative 5-31-91 (Register 91, No. 33). A Certificate of Compliance must be transmitted to OAL by 9-30-91 or emergency language will be repealed by operation of law on the following day.

7. Amendment of section filed 9-30-91 as an emergency; operative 9-30-91 (Register 92, No. 2). A Certificate of Compliance must be transmitted to OAL 1-28-92 or emergency language will be repealed by operation of law on the following day.

8. Repealed by operation of Government Code section 11346.1(g) (Register 92, No. 12).

9. New subsections (b)(6)(A)-(F) and (k)(3) refiled 12-17-91; operative 12-17-91. Certificate of Compliance included (Register 92, No. 12).

10. Change without regulatory effect amending definitions of Chief, Department, and Director in subsection (c) filed 3-4-92 pursuant to section 100, title 1, California Code of Regulations (Register 92, No. 19).

11. New subsections (b)(5)(I)-(b)(5)(I)3. and (e)(2)(A)-(C), new subsection (g)(2)(a)3.b. and subsection relettering, new subsection (g)(9) and subsection renumbering, and amendment of subsections (b)(4)(B), (b)(5)(H), (d)(3)(A), (d)(3)(C), (d)(4)-(d)(4)(B), (d)(5)(D), (e)(1), (e)(2), (f), (f)(1), (g)(1), (g)(2)(G), (g)(8), (h)(2)(C), (i)(9), (i)(16) and newly designated subsections (g)(10) and (g)(12)(D) filed 4-26-93; operative 5-26-93 (Register 93, No. 18).

12. Editorial correction of History9 (Register 94, No. 13).

13. Change without regulatory effect amending subsection (g)(12)(A) filed 12-14-94 pursuant to section 100, title 1, California Code of Regulations (Register 94, No. 50).

14. Repealer of note to subsection (f) filed 9-4-97; operative 10-4-97 (Register 97, No. 36).

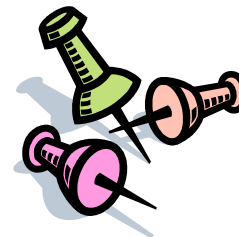
15. Change without regulatory effect changing subsection (k) designator to subsection (j) designator filed 3-15-99 pursuant to section 100, title 1, California Code of Regulations (Register 99, No. 12).

16. Amendment of subsections (b)(5)(C), (d)(3)(C) and (d)(4)(A)-(B), new subsection (f)(10) and amendment of subsections (g)(2), (g)(2)(G), (g)(6), (g)(8) and (h)(1) filed 7-6-2004; operative 7-6-2004. Submitted to OAL for printing only pursuant to Labor Code section 142.3(a)(3) (Register 2004, No. 28).



Safety Note

UNIVERSITY OF CALIFORNIA
AGRICULTURE AND NATURAL RESOURCES
ENVIRONMENTAL HEALTH AND SAFETY



Safety Note #21

MATERIAL SAFETY DATA SHEETS



California Code of Regulations (CCR) Title 8, Section 5194 (g) (1) requires a material safety data sheet (MSDS) for each hazardous chemical present in the workplace. In addition, the employer is required under CCR Title 8, Section 5194 (h) (1) and (2) to provide employees with information and training about hazardous substances in their work areas, including an explanation of MSDSs and providing the location and availability of MSDSs. It is imperative for employees to both understand MSDS information and to know the location(s) where MSDSs are stored. **Videos E-035 and S-035 Hazard Communications are available from the ANR Environmental Health and Safety Library at <http://safety.ucanr.org>.**

Information Required on MSDSs [CCR Title 8, Section 5194 (g) (2)]

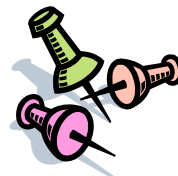
- Each MSDS shall be in English and contain the chemical common name and Chemical Abstracts Service (CAS) identification number for the hazardous substance.
- Physical and chemical properties of the hazardous substance (i.e., flash point).
- Physical hazards of the hazardous substance, including the potential for fire, explosion, and reactivity.
- Health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical conditions recognized as being aggravated by exposure to the substance.
- Potential routes of entry into the body.
- Occupational Safety and Health Administration (OSHA) permissible exposure limit, American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value, or any other exposure limit recommended by the manufacturer preparing the MSDS.
- Listing in the National Toxicology Program (NTP) *Sixth Annual Report on Carcinogens* or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) *Monographs*, Vols. 1 through 53 and Supplements 1 through 8 or by OSHA.
- Applicable precautions for safe handling and use, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for cleanup of spills and leaks.
- Suitable control measures, including appropriate engineering controls, work practices, or personal protective equipment.
- Emergency and first-aid procedures.
- Date of preparation of the MSDS or the date of last revision.
- Name, date, and telephone number of the hazardous substance manufacturer.
- A description in lay terms of specific potential health risks posed by the hazardous substance.

If you do not understand any of the information provided on a MSDS, contact your supervisor for clarification about the information in question.



Safety Note

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Safety Note #48

HAZARD COMMUNICATION AWARENESS



Information available from the Occupational Safety & Health Administration (OSHA) indicates 30 million American workers are exposed to hazardous chemicals at their workplaces. In addition, OSHA estimates there are 650,000 hazardous chemicals present in more than three million workplaces. The federal Hazard Communication Standard was developed to make sure employees are properly informed of hazardous substances present in the workplace, what health and safety hazards are posed by these workplace hazardous substances, and what protection is required when handling workplace hazardous substances. The equivalent state requirements are found under California Code of Regulations (CCR) Title 8, Section 5194 which addresses hazard communication in California workplaces. **Videos E-035 and S035 Hazard Communication are**

available from the ANR Environmental Health and Safety Library at <http://safety.ucanr.org>.

Hazard communication in California workplaces encompasses the five elements presented below:

1. Determination of Hazardous Substances [CCR Title 8, Section 5194 (d)]
 - Employers shall determine whether substances at the workplace are hazardous or subject to Proposition 65 requirements.
 - Hazardous substances are listed in the following:
 - a. *The Hazardous Substances List* in CCR Title 8, Section 339.
 - b. *Toxic and Hazardous Substances* in 29 CFR, Part 1910, Subpart Z.
 - c. *Threshold Limit Values for Chemical Substances in the Work Environment* by the American Conference of Government Industrial Hygienists, 1991-1992.
 - d. *Sixth Annual Report on Carcinogens* by the National Toxicology Program, 1991.
 - e. *Monographs* by the International Agency for Research on Cancer.
 - f. *Proposition 65 List* in CCR Title 22, Section 12000.
 - Manufacturer's information about hazardous substances is available on Material Safety Data Sheets (MSDSs).
2. MSDS Information [CCR Title 8, Section 5194 (g)]
 - Employers shall review MSDSs to determine whether employees are being provided the most current information about hazardous substances.
 - Employees shall receive MSDS training and know where MSDSs are located in the workplace (see Safety Note #21 Material Safety Data Sheets).
3. Labeling Information [CCR Title 8, Section 5194 (f)]
 - Labels that identify contents and hazards shall be prominently located on containers.
 - Container labels shall always be written in English and legible.
 - Proposition 65 substances shall be identified on container labels or by posting conspicuous signs in the workplace.
4. Written Hazard Communication Program [CCR Title 8, Section 5194 (e)]
 - Employers are required to have a written hazard communication program if employees are exposed to hazardous substances in the workplace.
 - The written hazard communication program is available at each Research and Extension (REC) in the Policy and Procedure document entitled "Hazard Communication Program Notes" and ANR document entitled "Hazard Communication Program."
5. Employee Training [CCR Title 8, Section 5194 (h)]
 - Employees shall be provided with information and training on hazardous substances in their work area when they are initially assigned and whenever a new hazard is introduced into their work area.
 - Employees shall be informed of any operations in their work area where hazardous substances are present.
 - Employees shall be told about the availability and location of the REC "Hazard Communication Program Notes" Policy and Procedures and ANR "Hazard Communication Program" documents.
 - Employee training shall include descriptions of hazardous substances used in work areas and appropriate employee personal protective equipment, work practices, and emergency procedures.