Chemical Hazard Communication Program  
California State University Bakersfield  
Rev: 2/2011

1. INTRODUCTION

A written hazard communication program is required by CA OSHA (8 CCR 5194) to protect the health and safety of the faculty, staff and students. This program includes guidelines for labeling of containers, provision of material safety data sheets (MSDS), maintenance of chemical inventories and training for the use and storage of all hazardous materials.

1.1. 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 unreasonably hazardous.

1.2. The University shall make available to appropriate employees information it has about any substance listed in the National Institute of Occupational Safety & Health (NIOSH) Registry of Toxic Effects of Chemical Substances which employees may use or to which they may be or have been exposed.

2. PURPOSE

Hazardous substances in the workplace in some forms and concentrations pose potential physical and health (acute and chronic) hazards to employees who are exposed to these substances. Departments and employees have a right and a need to know the properties and potential hazards of substances to which they may be exposed, and such knowledge is essential to reducing the incidence and cost of occupational injuries or illnesses. Appendices A and B provide further explanation of the scope of potential physical and health hazards covered by this program and the criteria to be used to determine if a chemical is to be considered hazardous.

2.1. The purpose of this program is to improve the detection, treatment, and prevention of occupational injuries, illness and disease and to support worker’s right to know. It is further intended to ensure that departments and workers have the information necessary for them to know when they are working with or may be exposed to hazardous substances. It is necessary to ensure that departments provide their employees with training in how to avoid exposure to hazardous substances and what to do if they are accidentally exposed to such substances.

3. SCOPE, APPLICATION AND DEFINITIONS.

This program shall apply to all campus departments that use, handle, or store hazardous substances (see Appendix A, Title 8 CCR 5194. This program applies to any hazardous substance that is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.
3.1. This program does not apply to:

b. Tobacco or tobacco products;
c. Wood or wood products;
d. Articles; and
e. Food, drugs, or cosmetics intended for personal consumption by employees while in the workplace.

4. RESPONSIBILITIES.

4.1. Safety and Risk Management (S&RM)

- Develop, implement, and monitor the Hazard Communication Program.
- S&RM will provide general Hazard Communication Training to University employees.
- Assist departments in complying with the program requirements including labeling, Material Safety Data Sheets (MSDS), employee information and training, and recordkeeping.
- Conduct periodic inspection to document the level of Hazard Communication compliance.
- Maintain all environmental monitoring, employee exposure, and employee medical records.
- Provide access to these records in accordance with Section 10 of this Manual.

4.2. DEPARTMENT

- Develop local procedures to ensure effective compliance with the Hazard Communication requirements of Title 8, California Code of Regulations, Section 5194 (see Appendix A) and Sections 1509 (Construction Safety Orders) and 3204 (General Industry Safety Orders), the Injury and Illness Prevention Program (IIPP).
- Ensure that all requirements of the Hazard Communication Program have been met before employees are exposed to hazardous substances under normal conditions of use or in a foreseeable emergency.
- Develop methods to inform employees of the hazards of non-routine tasks in their work areas.

4.3. EMPLOYEE

Because of the number of potential hazards that may exist or be created in the work environment, employees must first use common sense and good judgment at all times. Each employee assigned to work with a hazardous substance will read and comply with all hazard communication procedures, whether written or oral, while performing assigned duties.
5. LABELING

- Each department shall ensure that all containers of hazardous substances in the workplace are labeled, tagged or marked with the following information in accordance with Title 8 CCR Section 5228 (see Appendix L of this Manual):
  - Identity of the hazardous substance(s) contained therein;
  - Appropriate hazard warnings; and
  - Name of the manufacturer, address and phone number.

- Departments are not required to label portable containers (secondary containers) into which hazardous substances are transferred from labeled containers if intended only for immediate use by the employee who performs the transfer.

- Employees shall not remove or deface existing labels on incoming containers of hazardous substances.

6. MATERIAL SAFETY DATA SHEETS (MSDSs).

6.1. If an MSDS is not provided by a manufacturer, the ordering Department Head, Supervisor or S&RM staff will:

- Send a written letter request to the manufacturer within seven (7) working days from the date of the employee request.

- Notify the employee within fifteen (15) days of receipt of the MSDS.

- Notify the Director of the State Department of Industrial Relations if a response has not been received from the manufacturer within twenty-five (25) working days from the date of the request.

7. EMPLOYEE INFORMATION AND TRAINING.

- Departments shall provide employees with 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. S&RM will provide general Hazard Communication Training.

- Departments will furnish employees with an explanation of what the MSDS is, and of the contents of the MSDS for any hazardous substance to which employees are exposed or equivalent form, either in written form or through training.

8. RECORDKEEPING AND RECORD ACCESS.
• All environmental monitoring, employee exposure and employee medical records required by Cal/OSHA shall be maintained by the Safety and Risk Management for a period of at least thirty (30) years.

• All records will be made available upon request to the employee, former employee, an employee representative of either, or representative of the Chief of the Division of Occupational Safety and Health (DOSH), or the Director of NIOSH.

• Information considered to be pertinent to an employee exposure record (to toxic substances or harmful physical agents):
  • Workplace monitoring or measurement,
  • Biological monitoring results which assess the absorption of a substance by body systems, and
  • MSDSs, or if these are not available, any other information which reveals the identity of a toxic substance or harmful physical agent.

• Information considered to be pertinent to an employee medical record made or maintained by a physician, nurse, or other health care professional or technician is:
  • Medical and employment questionnaire or histories,
  • Results of medical examinations and laboratory and other diagnostic tests,
  • Medical opinions, diagnoses, progress notes, and recommendations,
  • Descriptions of treatments and prescriptions, and
  • Employee medical complaints.

• Safety and Risk Management will make a copy of this Hazard Communication Program available, upon request, to employees, their designated representatives, DOSH, or NIOSH.

9. CONTAINER LABELING

• No container of hazardous substances will be released for employee or student use until it is labeled with:
  • The name of the contents; and
  • Appropriate hazard warnings.

• Supervisors are responsible for adequate container labeling in their work area. All secondary containers will be labeled with a copy of the manufacturer's label or a generic label that provides space for material identification and hazard warnings.

10. MATERIAL SAFETY DATA SHEETS (MSDS)

Department heads are responsible for maintaining alphabetical MSDS files in areas under their control. All employees must have access to material safety data sheets in their work areas or in a central location. If MSDS are not available, the area supervisor should be notified. If a MSDS is missing or is obviously incomplete, a new MSDS will be requested from the manufacturer within 7 days. If the manufacturer does not respond immediately to a verbal request for a MSDS, send a written request. Notify the person who requested the MSDS of the action taken to obtain it within 7 days, and make the MSDS available within 15
days of receipt. If a manufacturer or supplier fails to provide a MSDS within 25 days, report the situation to the Office of Safety and Risk Management (S&RM) for notification of CA OSHA.

11. CHEMICAL INVENTORIES

Department heads are responsible for maintaining a complete inventory listing of hazardous substances in areas under their control. The inventory must list materials using an identity that is referenced in the appropriate MSDS. The storage location and maximum quantity to be stored must also be included. Departments are responsible for keeping chemical inventory spreadsheets current. S&RM will periodically request copies of current departmental chemical inventories for the annual campus wide chemical inventory file.

12. EMPLOYEE INFORMATION AND TRAINING

Everyone who works with or is potentially exposed to hazardous chemicals will receive training on the hazard communication standard and the safe use of hazardous materials at the time of assignment and when new hazards are introduced into the work area.

- The training provided by Safety and Risk Management departmental staff will emphasize:
  - The requirements of the hazard communication regulation, including worker rights;
  - Operations in the work area where hazardous materials are used;
  - The location and availability of the written hazard communication program and chemical inventory;
  - The chemical and physical properties of hazardous materials;
  - The health effects of hazardous substances;
  - Detection of a chemical release;
  - Selection and use of personal protective equipment;
  - Procedures for emergency response and the clean up of chemical spills; and
  - Instructions for interpreting the information provided on labels and material safety data sheets.

It is important that all personnel understand the training. Supervisors are responsible for answering questions from employees, monitoring work practices and informing employees of the hazards associated with chemicals used in non-routine tasks.

13. EMERGENCY RESPONSE PLANS AND PROCEDURES

Chemical spill response procedures are contained in the CSUB Chemical Hygiene Program and Hazardous Materials Emergency Response Plan. Those plans identify key campus personnel who must be notified in the event of an emergency. All employees will be informed of evacuation plans and emergency reporting procedures.

14. AUDITS

The Safety and Risk Manager will periodically audit departmental hazardous material inventories and MSDS files to make sure they are complete.
15. COMMUNICATION WITH CONTRACTORS

Upon notification from Facilities Management, Facilities Planning or Procurement staff or a department head arranging for contract services, the Office of Safety and Risk Management will provide contractors with written hazard communication information including:

- A list of hazardous substances or conditions that the contractor's employees may be exposed to at the job site;
- Information regarding the CSUB container labeling system;
- Protective measures employees may take to lessen the possibility of exposure; and
- The location of material safety data sheets.

This information will be provided at a pre-job meeting. Contractors are responsible for conveying this information to all sub-contractors on their work site. Each contractor bringing chemicals onto the campus must provide an inventory, container labels and MSDS.

16. ADDITIONAL INFORMATION

Employees and their designated representatives may obtain a copy of this program, assistance with interpretation of MSDS, and lists of chemical inventory at the Office of Safety and Risk Management.
APPENDIX A
HAZARD COMMUNICATION STANDARD
Title 8 CCR 5194

Appendix A to Section 5194: Health Hazard Definitions (Mandatory)
Appendix B to Section 5194: Hazard Determination (Mandatory)
Appendix C to Section 5194: Information Sources
Appendix D to Section 5194: Definition of “Trade Secret” (Mandatory)
Appendix E to Section 5194: Definitions

HAZARD COMMUNICATION STANDARD

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 workplace in such a manner that employees may be exposed under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace 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 it 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 100o F (37.8o C), but below 200o F (93.3o C), except any mixture having components with flashpoints of 200o F (93.3o 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 70o F (21.1o C); or

(B) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130o F (54.4o C) regardless of the pressure at 70o F (21.1o C); or

(C) A liquid having a vapor pressure exceeding 40 psi at 100o F (37.8o 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 100o F (37.8o C), except any mixture having components with flashpoints of 100o F (37.8o 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 100o F (37.8o 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 100o F (37.8o 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.


**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

(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 requester 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 representatives 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(i) 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

Health Hazard Definitions (Mandatory)

Although safety hazards related to the physical characteristics of a substance can be objectively defined in terms of testing requirements (e.g. flammability), health hazard definitions are less precise and more subjective. Health hazards may cause measurable changes in the body--such as decreased pulmonary function. These changes are generally indicated by the occurrence of signs and symptoms in the exposed employees--such as shortness of breath, a non-measurable, subjective feeling. Employees exposed to such hazards must be apprised of both the change in body function and the signs and symptoms that may occur to signal that change.

The determination of occupational health hazards is complicated by the fact that many of the effects or signs and symptoms occur commonly in nonoccupationally exposed populations, so that effects of exposure are difficult to separate from normally occurring illnesses. Occasionally, a substance causes an effect that is rarely seen in the population at large, such as angiosarcomas caused by vinyl chloride exposure, thus making it easier to ascertain that the occupational exposure was the primary causative factor. More often, however, the effects are common, such as lung cancer. The situation is further complicated by the fact that most substances have not been adequately tested to determine their health hazard potential, and data do not exist to substantiate these effects.

There have been many attempts to categorize effects and to define them in various ways. Generally, the terms "acute" and "chronic" are used to delineate between effects on the basis of severity or duration. "Acute" effects usually occur rapidly as a result of short-term exposures, and are of short duration. "Chronic" effects generally occur as a result of long-term exposure, and are of long duration.

The acute effects referred to most frequently are those defined by the American National Standards Institute (ANSI) standard for Precautionary Labeling of Hazardous Industrial Chemicals (Z129.1-1982)--irritation, corrosivity, sensitization and lethal dose. Although these are important health effects, they do not adequately cover the considerable range of acute effects which may occur as a result of occupational exposure, such as, for example, narcosis.

Similarly, the term chronic effect is often used to cover only carcinogenicity, teratogenicity, and mutagenicity. These effects are obviously a concern in the workplace, but again, do not adequately cover the area of chronic effects, excluding, for example, blood dyscrasias (such as anemia), chronic bronchitis and liver atrophy.

The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a result of substance exposures cannot realistically be accomplished. This does not negate the need for employees to be informed of such effects and protected from them.

Appendix B, which is also mandatory, outlines the principles and procedures of hazard assessment.

For purposes of this section, any substances which meet any of the following definitions, as determined by the criteria set forth in Appendix B are health hazards:

1. Carcinogen: A substance is considered to be a carcinogen if:
   
   (a) It has been evaluated by the International Agency for Research on Cancer (IARC) Monographs, Vols 1-53 and Supplements 1-8, and found to be a carcinogen or potential carcinogen; or
   
   (b) It is listed as a carcinogen or potential carcinogen in the Sixth Annual Report on Carcinogens published by the National Toxicology Program (NTP) or,
(c) It is regulated by OSHA as a carcinogen.

2. Corrosive: A substance that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a substance is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the U.S. Department of Transportation in Appendix A to 49 CFR Part 173, it destroys or changes irreversibly the structure of the tissue of four hours. This term shall not refer to action on inanimate surfaces.

3. Highly toxic: A substance falling within any of the following categories:

(a) A substance that has a median lethal dose (LD50) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A substance that has a median lethal dose (LD50) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A substance that has a median lethal concentration (LC50) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

4. Irritant: A substance, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A substance is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 CFR 1500.41 for 24 hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A substance is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.

5. Sensitizer: A substance that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the substance.

6. Toxic. A substance falling within any of the following categories:

(a) A substance that has a median lethal dose (LD50) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A substance that has a median lethal dose (LD50) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A substance that has a median lethal concentration (LC50) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

7. Target organ effects. The following is a target organ categorization of effects which may occur, including examples of signs and symptoms and substances which have been found to cause such effects. These examples are presented to illustrate the range and diversity of effects and hazards found in the workplace, and the broad scope employers must consider in this area, but are not intended to be all-inclusive.

a. Hepatotoxins: Substances which produce liver damage.
Signs and Symptoms: Jaundice; liver enlargement.
Substances: Carbon tetrachloride; nitrosamines.

b. Nephrotoxins: Substances which produce kidney damage.
Signs and Symptoms: Edema; proteinuria.
Substances: Halogenated hydrocarbons; uranium.

c. Neutrotoxins: Substances which produce their primary toxic effects on the nervous system.
Signs and Symptoms: Narcosis; behavioral changes; decrease in motor functions.
Substances: Mercury; carbon disulfide.

d. Agents which act on the blood or hematopoietic system: Decrease hemoglobin function; deprive the body tissues of oxygen.
Signs and Symptoms: Cyanosis; loss of consciousness.
Substances: Carbon monoxide; cyanides.

e. Agents which damage the lung: Substances which irritate or damage the pulmonary tissue.
Signs and Symptoms: Cough; tightness in chest; shortness of breath.
Substances: Silica; asbestos.

f. Reproductive toxins: Substances which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis).
Signs and Symptoms: Birth defects; sterility.
Substances: Lead; DBCP.

g. Cutaneous hazards: Substances which affect the dermal layer of the body.
Signs and Symptoms: Defatting of the skin; rashes; irritation.
Substances: Ketones; chlorinated compounds.

h. Eye hazards: Substances which affect the eye or visual capacity.
Signs and Symptoms: Conjunctivitis; corneal damage.
Substances: Organic solvents; acids.

Hazard Determination (Mandatory)

The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard determination. The hazard determination requirement of this standard is performance-oriented. Manufacturers, importers, and employers evaluating substances are not required to follow any specific methods for determining hazards, but they must be able to demonstrate that they have adequately ascertained the hazards of the substances produced or imported in accordance with the criteria set forth in this Appendix.

Hazard evaluation is a process which relies heavily on the professional judgment of the evaluator, particularly in the area of chronic hazards. The performance orientation of the hazard determination does not diminish the duty of the manufacturer, importer or employer to conduct a thorough evaluation, examining all relevant data and producing a scientifically defensible evaluation. For purposes of this standard, the following criteria shall be used in making hazard determinations that meet the requirements of this standard.

1. Carcinogenicity: As described in subsection 5194(d)(4) and Appendix A, a determination by the National Toxicology Program, the International Agency for Research on Cancer, or OSHA that a substance is a carcinogen or potential carcinogen will be considered conclusive evidence for purposes of this section.

2. Human data: Where available, epidemiological studies and case reports of adverse health effects shall be considered in the evaluation.

3. Animal data: Human evidence of health effects in exposed populations is generally not available for the majority of substances produced or used in the workplace. Therefore, the available results of toxicological testing in animal populations shall be used to predict the health effects that may be experienced by exposed workers. In particular, the definitions of certain acute hazards refer to specific animal testing results (see Appendix A).

4. Adequacy and reporting of data: The results of any studies which are designed and conducted according to established scientific principles, and which report statistically significant conclusions regarding the health effects of a substance, shall be a sufficient basis for a hazard determination and reported on any material safety data sheet. The manufacturer, importer, or employer may also report the results of other scientifically valid studies which tend to refute the findings of hazard.

Definition of "Trade Secret" (Mandatory)

The following is a reprint of the Restatement of Torts Section 757, comment b (1939):

b. Definition of trade secret. A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business (see Section 759 of the Restatement of Torts which is not included in this Appendix) in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like. A trade secret is a process or device for continuous use in the operations of the business. Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article. It may, however, relate to the sale of goods or to other operations in the business, such as a code for determining discounts, rebates or other concessions in the price list or catalogue, or a list if specialized customers, or a method of bookkeeping or other office management.

Secrecy. The subject matter of a trade secret must be secret. Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret. Matters which are completely disclosed by the goods which one markets cannot be his secret. Substantially, a trade secret is know only in the particular business in which it is used. It is not requisite that only the proprietor of the business know it. He may, without losing his protection, communicate it to employees involved in its use. He may likewise communicate it to others pledged to secrecy. Others may also know of it independently, as, for example, when they have discovered the process or formula by independent invention and are keeping it secret. Nevertheless, a substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring the information. An exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) The extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

Novelty and prior art. A trade secret may be a device or process which is patentable; but it need not be that. It may be device or process which is clearly anticipated in the prior art or one which is merely a mechanical improvement that a good mechanic can make. Novelty and invention are not requisite for a trade secret as they are for patentability. These requirements are essential to patentability. These requirements are essential to patentability because a patent protects against unlicensed use of the patented device or process even by one who discovers it properly through independent research. The patent monopoly is a reward to the inventor. But such is not the case with a trade secret. Its protection is not based on a policy of rewording or otherwise encouraging the development of secret processes or devices. The protection is merely against a breach of faith and reprehensible means of learning another's secret. For this limited protection it is not appropriate to require also the kind of novelty and invention which is a requisite of patentability. The nature
of the secret is, however, an important factor in determining the kind of relief that is appropriate against one who acquires the secret wrongfully is ordinarily enjoined from further use of it and is required to account for the profits derived from his past use. If, on the other hand, the secret consists of mechanical improvements that a good mechanic can make without resort to the secret, the wrongdoer's liability may be limited to damages, and an injunction against future use of the improvements made with the aid of the secret may be inappropriate.

Terms and Provisions for subsection (b)(6)

The following Sections from Title 22 of the California Code of Regulations (22 CCR) in effect on May 9, 1991 are printed in this Appendix because they provide terms and provisions referred to in subsection (b)(6):

# 12201. Definitions.

(a) In The Course of doing Business.

For purposes of Health and Safety Code Sections 25249.5 and 25249.6, "in the course of doing business" means any act or omission, whether or not for profit, except:

(1) as excluded by subdivision (b) of Section 25249.11 of the Health and Safety Code; or

(2) when caused by acts of war or grave and irresistible natural disasters such that no reasonable amount of resistance or advance preparation would be sufficient to avoid the discharge, release or exposure.

(b) In the Course of Doing Business, Acts of Employees.

"In the course of doing business" includes any act or omission of any employee which furthers the purpose or operation of the business, or which is expressly or implicitly authorized, except for the personal use, consumption or production of listed chemicals by an employee on the business premises or while performing activities for the business, unless the employer knows or should know of such use, consumption or production and knows or should know that such use, consumption or production will expose other individuals within the meaning of Health and Safety Code Section 25249.6 to a listed chemical.

(c) Employee.

The term "employee" shall have the same meaning as it does in Unemployment Insurance Code Section 621 and in Labor Code Section 3351. Generally, and without limiting the applicability of the definitions in these two statutes, this means than an employee is a person who performs services for remuneration under any appointment or contract of hire or apprenticeship, express or implied, oral or written, whether lawfully or unlawfully employed. In computing whether a person employs ten or fewer employees in his business, all full-time and part-time employees on the date on which the discharge, release or exposure occurs must be counted. Thus, the prohibitions on discharge or release and exposures to certain chemicals will apply to any person who has ten or more full-time or part-time employees on the date in question.

(d) Knowingly.

"Knowingly" refers only to knowledge of the fact that a discharge of, release of, or exposure to a chemical listed pursuant to Health and Safety Code Section 25249.8(a) is occurring. No knowledge that the discharge, release or exposure is unlawful is required. However, a person in the course of doing business who, through misfortune or accident and without evil design, intention or negligence, commits an act or omits to do something which results in a discharge, release or exposure has not violated Health and Safety Code Sections 25249.5 or 25249.6.

(e) ED NOTE: Cal-OSHA Standards Board did not incorporate subsection (e) into 5194(b)(6).

(f) Expose.
The term "expose" means to cause to ingest, inhale, contact via body surfaces or otherwise come into contact with a chemical. An individual may come into contact with a chemical through water, air, food, consumer products and any other environmental exposure as well as occupational or workplace exposures.

(g) - (j) ED NOTE: Cal-OSHA Standards Board did not incorporate subsections (g), (h), (i), and (j) into 5194(b)(6).

(k) For purposes of this chapter, "listed chemical" means a chemical listed pursuant to Health and Safety Code Section 25249.8, subsection (a).

# 12502. Exposure to a Listed Chemical in Drinking Water.

(a) A person otherwise responsible for an exposure to a listed chemical which involves the use of drinking water, including the use of drinking water in food or any other consumer product, does not "expose" an individual within the meaning of Section 25249.6 to the extent that the person can show that the listed chemical was contained in drinking water which was received from:

(1) a public water system, as defined in Section 4010.1 of the Health and Safety Code;

(2) a commercial supplier of drinking water; or

(3) a source of drinking water in compliance with all applicable primary drinking water standards for all listed chemicals and the chemical in question is the result of treatment of the water in order to achieve compliance with primary drinking water standards.

Where the source of the listed chemical is in part from such drinking water and in part from other sources, "exposure" can occur only as to that portion of the listed chemical from sources other than such drinking water.

(b) For purposes of subdivision (a), the amount of a listed chemical contained in drinking water shall be determined by sampling of the drinking water at the point of delivery and by testing pursuant to Section 12901. If sampling and testing is impractical, the amount of a listed chemical shall be based on test results of the most recent sample of the drinking water taken by the public water system or the commercial drinking water supplier, provided that all sampling and testing has been conducted at the frequency and in the manner required by law, or alternatively, such amount shall be calculated at five percent of the maximum contaminant level set forth in the primary drinking water standard for the listed chemical.

# 12601. Clear and Reasonable Warnings.

(a) Whenever a clear and reasonable warning is required under Section 25249.6 of the Health and Safety Code, the method employed to transmit the warning must be reasonably calculated, considering the alternative methods available under the circumstances, to make the warning message available to the individual prior to exposure. The message must clearly communicate that the chemical in question is known to the state to cause cancer, or birth defects or other reproductive harm. Nothing in this section shall be construed to preclude a person from providing warnings other than those specified in subdivisions (b), (c), and (d) which satisfy the requirements of this subdivision, or to require that warnings be provided separately to each exposed individual.

(b) Warnings for consumer products exposures which include the methods of transmission and the warning messages as specified by this subdivision shall be deemed to be clear and reasonable. A "consumer products exposure" is an exposure which results from a person's acquisition, purchase, storage, consumption, or other reasonably foreseeable use of a consumer good, or any exposure that results from receiving a consumer service.

(1) The warning may be provided by using one or more of the following methods singly or in combination:
(A) A warning that appears on a product's label or other labeling. The term "label" means a display of written, printed or graphic matter upon a product or its immediate container. The term "labeling" means any label or other written, printed or graphic matter affixed to or accompanying a product or its container or wrapper.

(B) Identification of the product at the retail outlet in a manner which provides a warning. Identification may be through shelf labeling, signs, menus, or a combination thereof.

(C) A system of signs, public advertising identifying the system and toll-free information services, or any other system, that provides clear and reasonable warnings.

(D) For alcoholic beverages, including, without limitation, beer, malt beverages, wine and distilled spirits:

1. Primarily intended for consumption off the premises where sold or distributed:

   (i) at least one notice or sign, no smaller than 10 inches wide by 10 inches high, and bearing the warning message set forth in paragraph (4) (E) of this subsection; or

   (ii) at least one horizontal strip marker no smaller than 10 1/2 inches wide by 1 1/4 inches high, and bearing the warning message set forth in paragraph (4)(E) of this subsection; or

   (iii) a notice no smaller than 5 inches by 5 inches, and bearing the warning message set forth in (4)(E) of this subsection.

   (iv) If signs 10 inches high by 10 inches wide are used, the word "warning" shall be centered, three-quarters of an inch from the top of the sign in ITC Garamond bold condensed type face all in one-inch capital letters. Thirteen-sixteenths of an inch from the base of the word "warning" shall be a line extending from left to right across the width of the sign one-sixteenth of an inch in thickness. Centered one-half inch below the line shall be the body of the warning message in 36/50 ITC Garamond bold condensed type face with the initial letter of each word, other than the conjunctive "and," capitalized. For the body of the warning message, left and right margins of at least one-half of an inch, and a bottom margin of at least one-half inch shall be observed. Larger signs shall bear substantially the same proportions of type size and spacing to sign dimension as the sign 10 inches high by 10 inches wide.

   (v) If the 10 1/2 inch by 1 1/4 inch horizontal strip markers are used, the word "WARNING," punctuated by a colon, shall be justified left and located three-sixteenths of an inch from the top of the strip notice in ITC Garamond bold condensed type face all in capital letters measuring eleven sixteenth of an inch in height. Three thirty-seCONDS of an inch from the base of the word "WARNING" shall be a line extending from left to right across the width of the word "WARNING" and the punctuation colon one thirty-second of an inch in thickness. Located one-fourth of an inch from the top and one-fourth of an inch from the bottom of the strip notice, and to the immediate right of the word "WARNING," shall be the body of the warning message in 12/16 point ITC Garamond bold condensed type face with the initial letter of each word, other than the conjunctive "and," capitalized. The word "WARNING" shall be one-half inch from the left edge of the strip notice and the requisite warning message shall extend to within one-half inch from the right edge.

   (vi) If the 5 inch by 5 inch signs are used, they shall bear substantially the same proportions of type size and spacing to sign dimension as the sign 10 inches high by 10 inches wide, with both the word "WARNING" and the warning text set in white on a contrasting red background.

   (vii) Such sign or notice shall be placed in the retail establishment so as to assure that it is readable and likely to be read either at each retail point of sale or each point of display. Such sign or notice shall be placed either at all retail points of sale or all points of display, but need not be placed at both. If 10 inch by 10 inch signs or notices are placed at the point of display, each shall be placed no more than ten feet from any alcoholic beverage
container and in a manner associating the sign or notice with the display. If horizontal strip notices are used, they shall be placed at ten foot intervals horizontally along the display. If a 5 inch by 5 inch sign is used, it shall be conspicuously placed at each retail point of sale (e.g., check-out counter, cash register, cash box) so that it is likely to be read and understood during the sales transaction.

(viii) All measurements specified or referred to in paragraphs (iv), (v) and (vi), above, are not required to be precisely accurate.

2. Provided for consumption on the premises at tables served by food or beverage persons, or sold or distributed through over-the-counter service;

(i) a notice or sign displayed at each of the tables where alcoholic beverages are served or may be consumed at least 5 inches high by 5 inches wide bearing substantially the same type face and substantially the same proportion of type size and spacing to sign dimension as described in paragraph (D)1.(vi); or

(ii) the warning message set forth in paragraph (4)(E) of this subdivision, placed upon a menu or list in association with the alcoholic beverages listed thereon and served at such premises, or if alcoholic beverages are not listed thereon, on any menu or list provided to patrons in association with the listing of food or beverage offerings, in type size and design, such that the text is conspicuous and likely to be read prior to consumption of alcoholic beverages or,

(iii) at least one 10 inch by 10 inch sign, meeting the specifications set forth in paragraph (D)1.(iv) of this subsection, placed so that it is readable and likely to be read by patrons as they enter each public entrance to the establishment. If the establishment does not have clearly defined physical boundaries delineating those areas where, by permit or license, alcoholic beverages are served, the 10 inch by 10 inch sign shall be posted so that it is readable and likely to be read by patrons as they enter the area or areas where, by permit or license, alcoholic beverages are served; and

(iv) If sold or distributed through over-the-counter service, at least one sign, meeting the specifications set forth in paragraph (D)1., (iv) of this subsection, placed in the retail establishment so that the warning message is, prior to the consumption of alcoholic beverages, readable and likely to be read from all counter locations available to the public. Therefore, a retail establishment providing a warning pursuant to the preceding sentence, also would be required to provide a warning in accordance with either paragraph 2.(i), 2.(ii) or 2.(iii) of this subsection.

3. For premises which are specially licensed to sell and serve alcoholic beverages both on and off the licensed premises (e.g., in facilities that offer both "tasting" and retail sales), the off-sale portion of the premises shall comply with the provisions of subsection (D)1., above, and the portion of the premises where alcoholic beverages are served shall comply with the provisions of subsection (D)2., above.

4. For alcoholic beverages sold or distributed to consumers through the mail or package delivery services, warnings may be provided by incorporating or placing the warning message set forth in paragraph (4)(E) on or in the shipping container or delivery package in such a manner so that the warning message is likely to be read by the recipient prior to consumption of the alcoholic beverage(s).

5. All signs or notices referred to in subsections (D)1., (D)2. and (D)3., above, shall be displayed so that they are clearly visible under all lighting conditions normally encountered during business hours.

(2) To the extent practicable, warning materials such as signs, notices, menu stickers, or labels shall be provided by the manufacturer, producer, or packager of the consumer product, rather than by the retail seller. For alcoholic beverages, the placement and maintenance of the warning shall be the responsibility of the manufacturer or its distributor at no cost to the retailer, and any consequences for failure to do the same shall
rest solely with the manufacturer or its distributor, provided that the retailer does not remove, deface, or obscure the requisite signs or notices, or obstruct, interfere with, or otherwise frustrate the manufacturer's reasonable efforts to post, maintain, or periodically replace said materials. For prescription drugs, the labeling approved or otherwise provided under federal law and the prescriber's accepted practice of obtaining a patient's informed consent shall be deemed to be a clear and reasonable warning.

(3) The warnings provided pursuant to paragraphs (1)(A) and (1)(B) shall be prominently placed upon a product's label or other labeling or displayed at the retail outlet with such conspicuousness, as compared with other words, statements, designs, or devices in the label, labeling or display as to render it likely to be read and understood by an ordinary individual under customary conditions of purchase or use.

(4) The warning message must include the following language:

(A) For consumer products that contain a chemical known to the state to cause cancer:

"WARNING: This product contains a chemical known to the State of California to cause cancer."

(B) For consumer products that contain a chemical known to the state to cause reproductive toxicity:

"WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm."

(C) For food, other than alcoholic beverages, sold, served, or otherwise provided in food facilities, as defined in Health and Safety Code Section 27521(a), which is intended for immediate consumption:

"WARNING: Chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm may be present in foods or beverages sold or served here."

(D) For fresh fruits, nuts and vegetables:

"WARNING: This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm."

(E) For alcoholic beverages, including, without limitation, beer, malt beverages, wine and distilled spirits:

"WARNING: Drinking Distilled Spirits, Beer, Coolers, Wine and Other Alcoholic Beverages May Increase Cancer Risk, and, During Pregnancy, Can Cause Birth Defects."

(5) A person in the course of doing business, who manufactures, produces, assembles, processes, handles, distributes, stores, sells or otherwise transfers a consumer product which he or she knows to contain a chemical known to the state to cause cancer or reproductive toxicity in an amount which requires a warning shall provide a warning to any person to whom the product is sold or transferred unless the product is packaged or labeled with a clear and reasonable warning.

(c) Warnings for occupational exposures which include the methods of transmission and the warning messages as specified by this subdivision shall be deemed clear and reasonable. An "occupational exposure" is an exposure, in the workplace of the employer causing the exposure, to any employee.

(1) The method employed to transmit the warning must include one of the following alternative methods:

(A) A warning that appears on the label or labeling of a product or substance present or used in the workplace. The label or labeling shall be prominently displayed on the product or substance and the product or substance shall be used under circumstances which make it likely that the warnings will be read and understood by employees or other individuals prior to the exposure for which the warning is given.
(B) A warning that appears on a sign in the workplace posted in a conspicuous place and under conditions that make it likely to be read and understood by employees and other individuals prior to the exposure for which the warning is given.

(C) A warning to the exposed employee about the chemical in question which complies with all information, training and labeling requirements of the federal Hazard Communication Standard (29 CFR Section 1910.1200, as amended and filed September 30, 1986), the California Hazard Communication Standard (Cal. Code Regs., Title 8, Section 5194, as amended and filed May 26, 1987), or, for pesticides, the Pesticides and Worker Safety requirements (Cal. Code Regs., Title 3, Ch. 6, Subch. 3, Group 3, Section 6700 et seq., in effect on February 16, 1988) authorized in Food and Agricultural Code Section 12981 (as amended by Statutes of 1980, Ch. 926, P. 2945, Section 1).

(2) For purposes of paragraph (1)(A) of this subdivision, the warning shall be provided in terms which would provide a clear warning for a consumer product as specified above.

(3) For purposes of paragraph (1)(B) of this subdivision, the following specific warning messages shall be deemed to clearly communicate that an individual is being exposed to a chemical known to the state to cause cancer, or birth defects or other reproductive harm.

(A) For exposure to a chemical known to the state to cause cancer:

"WARNING: This area contains a chemical known to the State of California to cause cancer."

(B) For exposure to a chemical known to the state to cause reproductive toxicity:

"WARNING: This area contains a chemical known to the State of California to cause birth defects or other reproductive harm."

(d) Warnings for environmental exposures which include the methods of transmission and the warning messages as specified by this subdivision shall be deemed clear and reasonable. An "environmental exposure" is an exposure which may foreseeably occur as the result of contact with an environmental medium, including, but not limited to, ambient air, indoor air, drinking water, standing water, running water, soil, vegetation, or manmade or natural substances, either through inhalation, ingestion, skin contact or otherwise. Environmental exposures include all exposures which are not consumer products exposures, or occupational exposures.

(1) The method employed to transmit the warning must include the most appropriate of the following alternative methods under the circumstances:

(A) A warning that appears on a sign in the affected area. The term "sign" means a presentation of written, printed or graphic matter. The term "affected area" means the area in which an exposure to a chemical known to the state to cause cancer or reproductive toxicity is at a level that requires a warning. A posting of signs in the manner described in Section 6776, (e)(1) of Title 3 of the California Code of Regulations, (as amended and filed August 15, 1986) shall be sufficient for purposes of this paragraph.

(B) A warning which is in a notice mailed or otherwise delivered to each occupant in the affected area. Such notice shall be provided at least once in any three-month period.

(C) A warning provided by public media announcements which target the affected area. Such announcements shall be made at least once in any three-month period.

(2) Environmental exposure warnings shall be provided in a conspicuous manner and under such conditions as to make it likely to be read, seen or heard and understood by an ordinary individual in the course of normal daily activity, and reasonably associated with the location and source of the exposure.
(3) For purposes of paragraph (1)(A) of this subdivision, the following specific warning messages shall be deemed to clearly communicate that an individual is being exposed to a chemical known to the state to cause cancer, or birth defects or other reproductive harm.

(A) For exposure to a chemical known to the state to cause cancer:

"WARNING: This area contains a chemical known to the State of California to cause cancer."

(B) For exposure to a chemical known to the state to cause reproductive toxicity:

"WARNING: This area contains a chemical known to the State of California to cause birth defects or other reproductive harm."

# 12701. General.

(a) The determination of whether a level of exposure to a chemical known to the state to cause cancer poses no significant risk for purpose of Health and Safety Code Section 25249.10(c) shall be based on evidence and standards of comparable scientific validity to the evidence and standards which form the scientific basis for the listing of the chemical as known to the state to cause cancer. Nothing in this article shall preclude a person from using evidence, standards, risk assessment methodologies, principles, assumptions or levels not described in this article to establish that a level of exposure to a listed chemical poses no significant risk.

(b) A level of exposure to a listed chemical, assuming daily exposure at that level, shall be deemed to pose no significant risk provided that the level is determined:

(1) By means of a quantitative risk assessment that meets the standards described in Section 12703;

(2) By application of Section 12707 (Routes of Exposure); or

(3) By one of the following, as applicable:

(A) If a specific regulatory level has been established for the chemical in question in Section 12705, by application of that level.

(B) If no specific level is established for the chemical in question in Section 12705, by application of Section 12709 (Exposure to Trace Elements), 12711 (Levels Based on State or Federal Standards) or 12713 (Exposure to Food, Drugs, Cosmetics and Medical Devices), unless otherwise provided.

(c) ED NOTE: Cal-OSHA Standards Board did not incorporate subsection (c) into 5194(b)(6).

(d) This article establishes exposure levels posing no significant risk solely for purposes of Health and Safety Code Section 25249.10(c). Nothing in this article shall be construed to establish exposure or risk levels for other regulatory purposes.

# 12703. Quantitative Risk Assessment.

(a) A quantitative risk assessment which conforms to this section shall be deemed to determine the level of exposure to a listed chemical which, assuming daily exposure at that level, poses no significant risk. The assessment shall be based on evidence and standards of comparable scientific validity to the evidence and standards which form the scientific basis for listing the chemical as known to the state to cause cancer. In the absence of principles or assumptions scientifically more appropriate, based upon the available data, the following default principles and assumptions shall apply in any such assessment:
(1) Animal bioassay studies for quantitative risk assessment shall meet generally accepted scientific principles, including the thoroughness of experimental protocol, the degree to which dosing resembles the expected manner of human exposure, the temporal exposure pattern, the duration of study, the purity of test material, the number and size of exposed groups, the route of exposure, and the extent of tumor occurrence.

(2) The quality and suitability of available epidemiologic date shall be appraised to determine whether the study is appropriate as the basis of a quantitative risk assessment, considering such factors as the selection of the exposed and reference groups, reliable ascertainment of exposure, and completeness of follow-up. Biases and confounding factors shall be identified and quantified.

(3) Risk analysis shall be based on the most sensitive study deemed to be of sufficient quality.

(4) The results obtained for the most sensitive study deemed to be of sufficient quality shall be applicable to all routes of exposure for which the results are relevant.

(5) The absence of a carcinogenic threshold dose shall be assumed and no-threshold models shall be utilized. A linearized multistage model for extrapolation from high to low doses, with the upper 95 percent confidence limit of the linear term expressing the upper bound of potency shall be utilized. Time-to-tumor models may be appropriate where data are available on the time of appearance of individual tumors, and particularly when survival is poor due to competing toxicity.

(6) Human cancer potency shall be derived from data on human or animal cancer potency. Potency shall be expressed in reciprocal milligrams of chemical per kilogram of bodyweight per day. Interspecies conversion of animal cancer potency to human cancer potency shall be determined by multiplying by a surface area scaling factor equivalent to the ratio of human to animal bodyweight, taken to the one-third power. This is equivalent to a scaling factor of 14 when extrapolating from mouse data, and a scaling factor of 6.5 when extrapolating from rat data.

(7) When available data are of such quality that physiologic, pharmacokinetic and metabolic considerations can be taken into account with confidence, they may be used in the risk assessment for inter-species, inter-dose, and inter-route extrapolations.

(8) When the cancer risk applies to the general population, human body weight of 70 kilograms shall be assumed. When the cancer risk applies to a certain subpopulation, the following assumptions shall be made, as appropriate:

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Kilograms of Body Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man (18+ years of age)</td>
<td>70</td>
</tr>
<tr>
<td>Woman (18+ years of age)</td>
<td>58</td>
</tr>
<tr>
<td>Woman with conceptus</td>
<td>58</td>
</tr>
<tr>
<td>Adolescent (11-18 years of age)</td>
<td>40</td>
</tr>
<tr>
<td>Child (2-10 years of age)</td>
<td>20</td>
</tr>
<tr>
<td>Infant (0-2 years of age)</td>
<td>10</td>
</tr>
</tbody>
</table>

(b) For chemicals assessed in accordance with this section, the risk level which represents no significant risk shall be one which is calculated to result in one excess case of cancer in an exposed population of 100,000, assuming lifetime exposure at the level in question, except where sound considerations of public health support an alternative level, as, for example:

(1) where chemicals in food are produced by cooking necessary to render the food palatable or to avoid microbiological contamination; or

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(2) where chlorine disinfection in compliance with all applicable state and federal safety standards is necessary to comply with sanitation requirements; or

(3) where a clean-up and resulting discharge is ordered and supervised by an appropriate governmental agency or court of competent jurisdiction.

# 12705. Specific Regulatory Levels Posing No Significant Risk.

(a) Daily exposure to a chemical at a level which does not exceed the level set forth in subsection (b) for such chemical shall be deemed to pose no significant risk within the meaning of Health and Safety Code section 25249.10(c).

(b)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Level micrograms/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylonitrile</td>
<td>0.7</td>
</tr>
<tr>
<td>Aldrin</td>
<td>0.04</td>
</tr>
<tr>
<td>Asbestos</td>
<td>100 fibers inhaled/day*</td>
</tr>
<tr>
<td>Benzene</td>
<td>7</td>
</tr>
<tr>
<td>Benzidine</td>
<td>0.001</td>
</tr>
<tr>
<td>Bis(2-chloroethyl) ether</td>
<td>0.3</td>
</tr>
<tr>
<td>Bis(chloromethyl) ether</td>
<td>0.02</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>5</td>
</tr>
<tr>
<td>DDT, DDE and DDD (in combination)</td>
<td>2</td>
</tr>
<tr>
<td>1,2-Dibromo-3-chloropropane (DBCP)</td>
<td>0.1</td>
</tr>
<tr>
<td>para-Dichlorobenzene</td>
<td>20</td>
</tr>
<tr>
<td>3,3′-Dichlorobenzidine</td>
<td>0.6</td>
</tr>
<tr>
<td>Dieldrin</td>
<td>0.04</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>30</td>
</tr>
<tr>
<td>Epichlorohydrin</td>
<td>9</td>
</tr>
<tr>
<td>Ethylene dibromide</td>
<td>0.2 (ingestion) 3 (inhalation)</td>
</tr>
<tr>
<td>Ethylene dichloride</td>
<td>10</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>2</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>0.4</td>
</tr>
<tr>
<td>Hexachlorocyclohexane (technical grade)</td>
<td>0.2</td>
</tr>
<tr>
<td>N-Nitroso-n-dibutylamine</td>
<td>0.06</td>
</tr>
<tr>
<td>N-Nitrosodiethylamine</td>
<td>0.02</td>
</tr>
<tr>
<td>N-Nitrosodimethylamine</td>
<td>0.04</td>
</tr>
<tr>
<td>N-Nitrosodiphenylamine</td>
<td>80</td>
</tr>
<tr>
<td>N-Nitrosodi-n-propylamine</td>
<td>0.1</td>
</tr>
<tr>
<td>N-Nitroso-N-ethylurea</td>
<td>0.03</td>
</tr>
<tr>
<td>N-Nitroso-N-methylurea</td>
<td>0.006</td>
</tr>
<tr>
<td>Polybrominated biphenyls</td>
<td>0.02</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>0.6</td>
</tr>
<tr>
<td>2,4,6-Trichlorophenol</td>
<td>10</td>
</tr>
<tr>
<td>Urethane</td>
<td>0.7</td>
</tr>
</tbody>
</table>

*Fibers equal to or greater than 5 micrometers in length and 0.3 micrometers in width, with a length to width ratio of greater than or equal to 3:1 as measured by phase contrast microscopy.

(c) Whenever the lead agency proposes to formally adopt, pursuant to this section, a level which shall be deemed to pose no significant risk of cancer, assuming daily exposure at that level, the lead agency shall provide to each member of the Scientific Advisory Panel notice of the proposed action, a copy of the proposed level, and a copy of initial statement of reasons supporting the proposal. The close of the public comment period for any such proposal shall be scheduled by the lead agency so as to permit the Scientific Advisory Panel the opportunity to review such proposal and provide comment to the lead agency. Any such comment by the Scientific Advisory Panel shall become a part of the formal rulemaking file. Nothing in this subdivision shall be construed to prevent members of the Scientific Advisory Panel from providing comments individually on any such proposal, or to require the Scientific Advisory Panel to submit any comment.
# 12707. Routes of Exposure.

(a) Where scientifically valid absorption studies conducted according to generally accepted standards demonstrate that absorption of a chemical through a specific route of exposure can be reasonably anticipated to present no significant risk of cancer at levels of exposure not in excess of current regulatory levels, the lead agency may identify the chemical as presenting no significant risk by that route of exposure. Any exposure, discharge or release of a chemical so identified shall be deemed to present no significant risk to the extent that it results in exposure to humans by the identified route, and does not exceed the level established in any other applicable federal or state standard, regulation, guideline, action level, license, permit, condition, requirement or order.

(b) The following chemicals present no significant risk of cancer by the route of ingestion:

(1) Asbestos

(2) Beryllium and beryllium compounds

(3) Cadmium and cadmium compounds

(4) Chromium (hexavalent compounds)

(5) Nickel and nickel compounds

# 12709. Exposure to Trace Elements.

(a) Except where a specific regulatory level is established in Section 12705, exposure to a trace element listed in (b) shall be deemed to pose no significant cancer risk so long as the reasonably anticipated level of exposure to the chemical does not exceed the level set forth in (b).

(b)

<table>
<thead>
<tr>
<th>Element</th>
<th>No Significant Risk Level in micrograms per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic (inorganic)</td>
<td>10</td>
</tr>
<tr>
<td>Beryllium</td>
<td>0.1</td>
</tr>
<tr>
<td>Cadmium</td>
<td>1</td>
</tr>
</tbody>
</table>

# 12711. Levels Based on State or Federal Standards.

(a) Except as otherwise provided in section 12705, 12707, 12709, or 12713, levels of exposure deemed to pose no significant risk may be determined as follows:

(1) Where a state or federal agency has developed a regulatory level for a chemical known to the state to cause cancer which is calculated to result in not more than one excess case of cancer in an exposed population of 100,000, such level shall constitute the no significant risk level.

(2) The following levels based on state or federal risk assessments shall be deemed to pose no significant risk:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Level micrograms/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
<td>90</td>
</tr>
<tr>
<td>Acrylamide</td>
<td>0.2</td>
</tr>
<tr>
<td>Allylchloride</td>
<td>30</td>
</tr>
<tr>
<td>Aniline</td>
<td>100</td>
</tr>
<tr>
<td>Azobenzene</td>
<td>6</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>0.06</td>
</tr>
<tr>
<td>Berylliumoxide</td>
<td>0.1</td>
</tr>
<tr>
<td>Berylliumsulfate</td>
<td>0.0002</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>0.4</td>
</tr>
<tr>
<td>Chlordane</td>
<td>0.5</td>
</tr>
<tr>
<td>Chemical</td>
<td>Level</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Chloroform</td>
<td>9</td>
</tr>
<tr>
<td>Chromium(hexavalent)</td>
<td>0.001</td>
</tr>
<tr>
<td>Cokeovenemissions</td>
<td>0.3</td>
</tr>
<tr>
<td>DDVP(Dichlorvos)</td>
<td>2</td>
</tr>
<tr>
<td>Dichloromethane(MethyleneChloride)</td>
<td>50</td>
</tr>
<tr>
<td>Di(2-ethylhexyl)phthalate</td>
<td>80</td>
</tr>
<tr>
<td>2,4-Dinitrotoluene</td>
<td>2</td>
</tr>
<tr>
<td>Polpet</td>
<td>200</td>
</tr>
<tr>
<td>Formaldehyde(gas)</td>
<td>15</td>
</tr>
<tr>
<td>Furmecyclox</td>
<td>20</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>0.2</td>
</tr>
<tr>
<td>Heptachlorepoxide</td>
<td>0.08</td>
</tr>
<tr>
<td>Hexachlorocyclohexane</td>
<td></td>
</tr>
<tr>
<td>Hydrazine</td>
<td>0.04</td>
</tr>
<tr>
<td>Hydrazinesulfate</td>
<td>0.2</td>
</tr>
<tr>
<td>4,4'-Methylenebis(N,N-dimethyl)benzeneamine</td>
<td>20</td>
</tr>
<tr>
<td>Nickelrefinerydust</td>
<td>0.8</td>
</tr>
<tr>
<td>Nickelsubslulfide</td>
<td>0.4</td>
</tr>
<tr>
<td>N-Nitrosodiethanolamine</td>
<td>0.3</td>
</tr>
<tr>
<td>N-nitrosomethylenehydrazine</td>
<td>0.03</td>
</tr>
<tr>
<td>N-nitrosopyrrolidine</td>
<td>0.3</td>
</tr>
<tr>
<td>Pentachloropheno</td>
<td>140</td>
</tr>
<tr>
<td>PolychlorinatedBiphenyls(PCBs)</td>
<td>0.09</td>
</tr>
<tr>
<td>Tetrachlorodibenzo-p-dioxin(TCDD)</td>
<td>0.000005</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>14</td>
</tr>
<tr>
<td>Trichlorethylene</td>
<td>60</td>
</tr>
<tr>
<td>Vinylchloride</td>
<td>0.3</td>
</tr>
</tbody>
</table>

(3) For drinking water, the following levels shall be deemed to pose no significant risk:

(A) Drinking water maximum contaminant levels adopted by the Department of Health Services for chemicals known to the state to cause cancer;

(B) Drinking water action levels for chemicals known to the state to cause cancer for which maximum contaminant levels have not been adopted;

(C) Specific numeric levels of concentration for chemicals known to the state to cause cancer which are permitted to be discharged or released into sources of drinking water by a Regional Water Quality Control Board in a water quality control plan or in waste discharge requirements, when such levels are based on considerations of minimizing carcinogenic risks associated with such discharge or release.

# 12721. Level of Exposure to Carcinogens.

(a) For the purposes of the Act, "level in question" means the chemical concentration of a listed chemical for the exposure in question. The exposure in question includes the exposure for which the person in the course of doing business is responsible, and does not include exposure to a listed chemical from any other source or product.

(b) For purposes of the Act, "lifetime exposure" means the reasonably anticipated rate of exposure for an individual to a given medium of exposure measured over a lifetime of seventy years.

(c) For purposes of Health and Safety Code Section 25249.10(c), the level of exposure to a listed carcinogen, assuming lifetime exposure at the level in question, shall be determined by multiplying the level in question (stated in terms of a concentration of a chemical in a given medium) times the reasonably anticipated rate of exposure for an individual to the given medium of exposure measured over a lifetime of seventy years.
(d) The following assumptions shall be used to calculate the reasonably anticipated rate of exposure to a listed carcinogen, unless more specific and scientifically appropriate date are available:

(1) For an exposure reasonably expected to affect the general population in any geographic area:

(A) The exposed individual ingests two liters of drinking water per day.

(B) The exposed individual inhales twenty cubic meters of air per day.

(C) The exposed individual has a lifespan of seventy years.

(2) For an exposure reasonably anticipated to affect a certain subpopulation of the general population in any geographic area, specific date (if available) relating to that subpopulation shall be used to determine the level of exposure.

(A) In the absence of more specific and scientifically appropriate data, the following assumptions should be made as appropriate:

<table>
<thead>
<tr>
<th>Subpopulation</th>
<th>Water liters/day</th>
<th>Air cubic meters/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man (18+ years of age)</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Woman (18+ years of age)</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Woman with conceptus</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Adolescent (10-18 years of age)</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Child (2-10 years of age)</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Infant (0-2 years of age)</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

(B) For an exposure reasonably expected to affect the conceptus (embryo or fetus), the gestation period for the exposed conceptus is nine months.

(3) For workplace exposures, the exposed worker inhales ten cubic meters of workplace air per eight-hour day, forty hours per week, fifty weeks per year over a forty-year period. The exposed individual from the general population who occasionally enters a workplace inhales 1.25 cubic meters of workplace air for one hour per month for a seventy-year lifetime.

(4) For exposures to consumer products, lifetime exposure shall be calculated using the average rate of intake or exposure for average users of the consumer product, and not on a per capita basis for the general population. The average rate of intake or exposure shall be based on data for use of a general category or categories of consumer products, such as the United States Department of Agriculture Home Economic Research Report, Foods Commonly Eaten by Individuals: Amount Per Day and Per Eating Occasion, where such data are available.

# 12801. General.

(a) The determination of whether a level of exposure to a chemical known to the state to cause reproductive toxicity has no observable effect for purposes of Health and Safety Code Section 25249.10(c) shall be based on evidence and standards of comparable scientific validity to the evidence and standards which form the scientific basis for the listing of a chemical as known to the state to cause reproductive toxicity. Nothing in this article shall preclude a person from using evidence, standards, assessment methodologies, principles, assumptions or levels not described in this article to establish that a level of exposure has no observable effect at one thousand (1,000) times the level in question.

(b) A level of exposure to a listed chemical shall be deemed to have no observable effect, assuming exposure at one thousand times that level, provided that the level is determined:
By means of an assessment that meets the standards described in section 12803 to determine the maximum dose level having no observable effect, and dividing that level by one thousand (1,000) to arrive at the maximum allowable dose level; or

(2) By application of a specific regulatory level for the chemical in question as provided in section 12805.

(c) For purposes of this article, "NOEL" shall mean that no observable effect level, which is the maximum dose level at which a chemical has no observable reproductive effect.

(d) The chemicals specifically contained in this article do not include all listed reproductive toxicants for which there is a level of exposure which has no observable effect assuming exposure at one thousand times the level in question. The fact that a chemical does not specifically appear in this article does not mean that it has an observable effect at any level.

(e) This article establishes exposure levels solely for purposes of Health and Safety Code Section 25249.10(c). Nothing in this article shall be construed to establish exposure levels for other regulatory purposes.

# 12803. Assessment.

(a) A quantitative risk assessment which conforms to this section shall be deemed to determine the level of exposure to a listed chemical which has no observable effect, assuming exposure at one thousand times the level in question. The assessment shall be based on evidence and standards of comparable scientific validity to the evidence and standards which form the scientific basis for listing the chemical as known to the state to cause reproductive toxicity. In the absence of principles or assumptions scientifically more appropriate, based upon the available data, the following default principles and assumptions shall apply in any such assessment:

(1) Only studies producing the reproductive effect which provides the basis for the determination that a chemical is known to the state to cause reproductive toxicity shall be utilized for the determination of the NOEL. Where multiple reproductive effects provide the basis for the determination that a chemical is known to the state to cause reproductive toxicity, the reproductive effect for which studies produce the lowest NOEL shall be utilized for the determination of the NOEL. The NOEL shall be the highest dose level which results in no observable reproductive effect, expressed in milligrams of chemical per kilogram of bodyweight per day.

(2) The quality and suitability of available epidemiologic data shall be appraised to determine whether the study is appropriate as the basis of an assessment considering such factors as the selection of the exposed and reference groups, the reliable ascertainment of exposure, and completeness of follow-up. Biases and confounding factors shall be identified and quantified.

(3) Animal bioassay studies for assessment shall meet generally accepted scientific principles, including the thoroughness of experimental protocol, the degree to which dosing resembles the expected manner of human exposure, the temporal exposure pattern, the duration of study, the purity of test material, the number and size of exposed groups, and the route of exposure and the extent of occurrence of effects.

(4) The NOEL shall be based on the most sensitive study deemed to be of sufficient quality.

(5) The results obtained for the most sensitive study deemed to be of sufficient quality shall be applicable to all routes of exposure for which the results are relevant.

(6) When available data are of such quality that anatomic, physiologic, pharmacokinetics and metabolic considerations can be taken into account with confidence, they may be used in the assessment.

(7) When data do not allow the determination of a NOEL, the lowest observable effect level (LOEL) shall be divided by 10 to establish a NOEL for purposes of assessment.
(b) The NOEL shall be converted to a milligram per day dose level by multiplying the assumed human body weight by the NOEL. When the applicable reproductive effect is upon the male, human body weight of 70 kilograms shall be assumed. When the applicable reproductive effect is upon the female or conceptus, human body weight of 58 kilograms shall be assumed.

# 12805. Specific Regulatory Levels: Reproductive

Toxicants.

(a) Exposure to a chemical at a level which does not exceed the level set forth in subsection (b) for such chemical has no observable effect assuming exposure at one thousand (1,000) times that level.

(b)

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Level Micrograms/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Oxide</td>
<td>20.0</td>
</tr>
<tr>
<td>Lead</td>
<td>0.5</td>
</tr>
</tbody>
</table>

(c) Unless a specific level is otherwise provided in this section, an assessment by an agency of the state or federal government that is the substantial equivalent of the assessment described in subdivision (a) of Section 12803, and establishes a maximum allowable daily dose level in the manner provided in paragraph (b)(1) of Section 12801, shall constitute the allowable daily dose level having no observable effect within the meaning of Health and Safety Code Section 25249.10(c).

# 12821. Level of Exposure to Reproductive Toxicants.

(a) For purposes of the Act, "level in question" means the chemical concentration of a listed chemical for the exposure in question. The exposure in question includes the exposure for which the person in the course of doing business is responsible, and does not include exposure to a listed chemical from any other source or product.

(b) For purposes of Health and Safety Code Section 25249.10(c), the level of exposure to a listed reproductive toxicant shall be determined by multiplying the level in question (stated in terms of a concentration of a chemical in a given medium) times the reasonably anticipated rate of exposure for an individual to a given medium. The reasonably anticipated rate of exposure shall be based on the pattern and duration of exposure that is relevant to the reproductive effect which provided the basis for the determination that a chemical is known to the state to cause reproductive toxicity. (For example, an exposure of short duration is appropriate for a teratogenic chemical, whereas a chronic or protracted exposure is appropriate for one that retards fetal growth).

(c) The following assumptions shall be used to calculate the reasonably anticipated rate of exposure to a listed reproductive toxicant, unless more specific and scientifically appropriate data are available:

1. The assumptions set forth in subdivision (d) of Section 12721 shall be used to calculate the reasonably anticipated rate of exposure to a listed reproductive toxicant, unless more specific and scientifically appropriate data are available.

2. For exposures to consumer products, the level of exposure shall be calculated using the reasonably anticipated rate of intake or exposure for average users of the consumer product, and not on a per capita basis for the general population. The rate of intake or exposure shall be based on data for use of a general category or categories of consumer products, such as the United States Department of Agriculture Home Economic Research Report, Foods Commonly Eaten by Individuals: Amount Per Day and Per Eating Occasion, where such data are available.
(3) Where a maternal exposure to a listed reproductive toxicant has an effect on the conceptus (embryo or fetus), the level of exposure shall be based on the reasonably anticipated rate of exposure for the mother during the nine-month gestation period.

# 12901. Methods of Detection.

(a) For purposes of Section 25249.11, subdivision (c), of the Health and Safety Code, the term "any detectable amount" means a level detected using a method of analysis referred to in this section. For purposes of this section, "method of analysis" refers to the method of detection or detection and calculation for a listed chemical in a specific medium, including, but not limited to, water, air, food, or soil, and shall include methods and procedures concerning the number of samples and the frequency and site of sampling that are specific for the listed chemical in question.

(b) Where the California Department of Health Services, the California Department of Food and Agriculture, the Air Resources Board, a local air pollution control district, the State Water Resources Control Board, or a Regional Water Quality Control Board has adopted or employs a method of analysis for a listed chemical in a specific medium, such method shall be the method of analysis for that chemical in that medium. Where more than one method of analysis has been so adopted or is so employed, each may be utilized as the method of analysis.

(c) Where no state or local agency identified in subdivision (b) has adopted or employs a method of analysis, a method of analysis, a method of analysis for a listed chemical in a specific medium adopted or employed by a federal agency shall be the method of analysis for that chemical in that medium. Where more than one method of analysis has been so adopted or is so employed, each may be utilized as the method of analysis.

(d) Where no regulatory agency identified in subdivision (b) or (c) has adopted or employs a method of analysis, a method of analysis for a listed chemical in a specific medium which is generally accepted by the scientific community, as evidenced by its publication in compilations by professional and scientific associations or societies, such as the Association of Official Analytical Chemists, or in peer-reviewed technical journals published by such associations or societies, such method shall be the method of analysis for that chemical in that medium. Where more than one method of analysis is generally accepted, each may be utilized as the method of analysis.

(e) Where no method of analysis as described in subsections (b) or (c) has been adopted or is employed, or is generally accepted by the scientific community as described in subsection (d), and a scientifically valid method of analysis has been developed for a listed chemical in a specific medium, such method shall be the method of analysis for that chemical in that medium. Where more than one method of analysis has been developed for a chemical in a specific medium, each may be utilized as the method of analysis.

(f) In performing an analysis to determine the concentration of a chemical known to the state to cause cancer or reproductive toxicity in a given medium, generally accepted standards and practice for sampling, collection, storage, preparation, chemical analysis, statistical analysis of data, interpretation of results and modeling shall be observed.

(g) For purposes of Health and Safety Code Sections 25249.5 and 25249.6, no discharge, release or exposure occurs unless a listed chemical is detectable as provided in this section.

Appendix B

§5191. Occupational Exposure to Hazardous Chemicals in Laboratories.

(a) Scope and application.

(1) This section shall apply to all employers engaged in the laboratory use of hazardous chemicals as defined below.

(2) Where this section applies, it shall supersede, for laboratories, the requirements of Title 8 of the California Code of Regulations Section 5190 and Article 110, Regulated Carcinogens of the General Industry Safety Orders, except as follows:

(A) The requirement to limit employee exposure to the specific exposure limit.

(B) When that particular regulation states otherwise, as in the case of Section 5209(c)(6).

(C) Prohibition or prevention of eye and skin contact where specified by any health regulation shall be observed.

(D) Where the action level (or in the absence of an action level, the exposure limit) is exceeded for a regulated substance with exposure monitoring and medical surveillance requirements.

(E) The "report of use" requirements of Article 110, (Section 5200 et. seq.) Regulated Carcinogens regulations.

(F) Section 5217 shall apply to anatomy, histology and pathology laboratories.

(3) This regulation shall not apply to:

(A) Uses of hazardous chemicals which do not meet the definition of laboratory use, and in such cases, the employer shall comply with the relevant regulations in Title 8, California Code of Regulations, even if such use occurs in a laboratory.

(B) Laboratory uses of hazardous chemicals which provide no potential for employee exposure. Examples of such conditions might include:

1. Procedures using chemically-impregnated test media such as Dip-and-Read tests where a reagent strip is dipped into the specimen to be tested and the results are interpreted by comparing the color reaction to a color chart supplied by the manufacturer of the test strip; and

2. Commercially prepared kits such as those used in performing pregnancy tests in which all of the reagents needed to conduct the test are contained in the kit.

(b) Definitions

Action level. A concentration designated in Title 8, California Code of Regulations for a specific substance, calculated as an eight (8)-hour time weighted average, which initiates certain required activities such as exposure monitoring and medical surveillance.

Carcinogen (see "select carcinogen").

Chemical Hygiene Officer. An employee who is designated by the employer, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the
Chemical Hygiene Plan. This definition is not intended to place limitations on the position description or job classification that the designated individual shall hold within the employer's organizational structure.

Chemical Hygiene Plan. A written program developed and implemented by the employer which sets forth procedures, equipment, personal protective equipment and work practices that

(1) are capable of protecting employees from the health hazards presented by hazardous chemicals used in that particular work place and

(2) meets the requirements of subsection 5191(e).

Chief. The Chief of the Division of Occupational Safety and Health.

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.

Compressed gas.

(1) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70°F (21.1°C); or

(2) 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

(3) A liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

Designated area. An area which may be used for work with "select carcinogens," reproductive toxins or substances which have a high degree of acute toxicity. A designated area may be the entire laboratory, an area of a laboratory or a device such as a laboratory hood.

Emergency. Any occurrence such as, but not limited to, equipment failure, rupture of containers or failure of control equipment which results in an uncontrolled release of a hazardous chemical into the workplace.

Employee. An individual employed in a laboratory workplace who may be exposed to hazardous chemicals in the course of his or her assignments.

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

Flammable. A chemical that falls into one of the following categories:

(1) "Aerosol, flammable" means 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;

(2) "Gas, flammable" means:

(A) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13 percent by volume or less; or

(B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air greater than 12 percent by volume, regardless of the lower explosive limit.
(3) "Liquid, flammable" means 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.

(4) "Solid, flammable" means a solid, other than a blasting agent or explosive as defined in 29 CFR 1910.109(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:

(1) 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), or that do not contain suspended solids, and do not have a tendency to form a surface film under test; or

(2) 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 liquid with a viscosity equal to or greater than 45 SUS at 100° F (37.8°C), or that contain suspended solids, or that have a tendency to form a surface film under test; or

(3) 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.

Hazardous chemical. A chemical 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 chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems, and agents which damage the lungs, skin, eyes, or mucous membranes.

Appendices A and B of the Hazard Communication Standard (Section 5194) provide further guidance in defining the scope of health hazards and determining whether or not a chemical is to be considered hazardous for purposes of this regulation.

Laboratory. A facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

Laboratory scale. Work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safety manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

Laboratory-type hood. A device located in a laboratory, enclosed on five sides with a movable sash or fixed partial enclosure on the remaining side; constructed and maintained to draw air from the laboratory and to prevent or minimize the escape of air contaminants into the laboratory; and allows chemical manipulations to be conducted in the enclosure without insertion of any portion of the employee's body other than hands and arms.

Walk-in hoods with adjustable sashes meet the above definition provided that the sashes are adjusted during use so that the airflow and the exhaust of air contaminants are not compromised and employees do not work inside the enclosure during the release of airborne hazardous chemicals.
Laboratory use of hazardous chemicals. Handling or use of such chemicals in which all of the following conditions are met:

1. Chemical manipulations are carried out on a "laboratory scale";
2. Multiple chemical procedures or chemicals are used;
3. The procedures involved are not part of a production process, nor in any way simulate a production process; and
4. "Protective laboratory practices and equipment" are available and in common use industry-wide to minimize the potential for employee exposure to hazardous chemicals.

Medical consultation. A consultation which takes place between an employee and a licensed physician for the purpose of determining what medical examinations or procedures, if any, are appropriate in cases where a significant exposure to a hazardous chemical may have taken place.

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

Protective laboratory practices and equipment. Those laboratory procedures, practices and equipment accepted by laboratory health and safety experts as effective, or that the employer can show to be effective, in minimizing the potential for employee exposure to hazardous chemicals.

Reproductive toxins. Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis).

Select carcinogen. Any substance which meets one of the following criteria:

1. It is regulated by Cal/OSHA as a carcinogen; or
2. It is listed under the category, "known to be carcinogens," in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (1985 edition); or
3. It is listed under Group 1 ("carcinogenic to humans") by the International Agency for Research on Cancer Monographs (IARC) (Volumes 1-48 and Supplements 1-8); or
4. It is listed in either Group 2A or 2B by IARC or under the category, "reasonably anticipated to be carcinogens" by NTP, and causes statistically significant tumor incidence in experimental animals in accordance with any of the following criteria:

   A. After inhalation exposure of 6-7 hours per day, 5 days per week, for a significant portion of a lifetime to dosages of less than 10 mg/m3;
   B. After repeated skin application of less than 300 mg/kg of body weight per week; or
(C) After oral dosages of less than 50 mg/kg of body weight per day.

Unstable (reactive). A chemical which is 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.

Water-reactive. A chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

(c) Exposure limits. For laboratory uses of Cal/OSHA regulated substances, the employer shall ensure that laboratory employees' exposures to such substances do not exceed the exposure limits specified in Title 8, California Code of Regulations, Group 16, Section 5139 et seq., of the General Industry Safety Orders.

(d) Employee exposure determination

(1) Initial monitoring. The employer shall measure the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance exceed the action level (or in the absence of an action level, the exposure limit). The person supervising, directing or evaluating the monitoring shall be competent in industrial hygiene practice.

(2) Periodic monitoring. If the initial monitoring prescribed by subsection 5191(d)(1) discloses employee exposure over the action level (or in the absence of an action level, the exposure limit), the employer shall immediately comply with the exposure monitoring provisions of the relevant regulation.

(3) Termination of monitoring. Monitoring may be terminated in accordance with the relevant regulation.

(4) Employee notification of monitoring results. The employer shall, within 15 working days after the receipt of any monitoring results, notify the employee of these results in writing either individually or by posting results in an appropriate location that is accessible to employees.

(e) Chemical hygiene plan.

(1) Where hazardous chemicals as defined by this regulation are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is:

(A) Capable of protecting employees from health hazards associated with hazardous chemicals in that laboratory and

(B) Capable of keeping exposures below the limits specified in subsection 5191(c).

(2) The Chemical Hygiene Plan shall be readily available to employees, employee representatives and, upon request, to the Chief.

(3) The Chemical Hygiene Plan shall include each of the following elements and shall indicate specific measures that the employer will take to ensure laboratory employee protection;

(A) Standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals:

(B) Criteria that the employer will use to determine and implement control measures to reduce employee exposure to hazardous chemicals including engineering controls, the use of personal protective equipment and hygiene practices; particular attention shall be given to the selection of control measures for chemicals that are known to be extremely hazardous;
(C) A requirement that fume hoods comply with Section 5154.1, that all protective equipment shall function properly and that specific measures shall be taken to ensure proper and adequate performance of such equipment;

(D) Provisions for employee information and training as prescribed in subsection 5191(f);

(E) The circumstances under which a particular laboratory operation, procedure or activity shall require prior approval from the employer or the employer's designee before implementation;

(F) Provisions for medical consultation and medical examinations in accordance with subsection 5191(g);

(G) Designation of personnel responsible for implementation of the Chemical Hygiene Plan including the assignment of a Chemical Hygiene officer and, if appropriate, establishment of a Chemical Hygiene Committee; and

(H) Provisions for additional employee protection for work with particularly hazardous substances. These include "select carcinogens," reproductive toxins and substances which have a high degree of acute toxicity. Specific consideration shall be given to the following provisions which shall be included where appropriate;

1. Establishment of a designated area;
2. Use of containment devices such as fume hoods or glove boxes;
3. Procedures for safe removal of contaminated waste; and
4. Decontamination procedures.

(4) The employer shall review and evaluate the effectiveness of the Chemical Hygiene Plan at least annually and update it as necessary.

Note: Appendix A of this section is non-mandatory but provides guidance to assist employers in the development of the Chemical Hygiene Plan.

(f) Employee information and training.

(1) The employer shall provide employees with information and training to ensure that they are apprised of the hazards of chemicals present in their work area. Information and training may relate to an entire class of hazardous substances to the extent appropriate.

(2) Such information shall be provided at the time of an employee's initial assignment to a work area where hazardous chemicals are present and prior to assignments involving new exposure situations. The frequency of refresher information and training shall be determined by the employer.

(3) Information. Employees shall be informed of:

(A) The contents of this regulation and its appendices which shall be available to employees;

(B) The location and availability of the employer's Chemical Hygiene Plan;

(C) The exposure limits for Cal/OSHA regulated substances or recommended exposure limits for other hazardous chemicals where there is no applicable Cal/OSHA regulation;

(D) Signs and symptoms associated with exposures to hazardous chemicals used in the laboratory; and
(E) The location and availability of known reference material on the hazards, safe handling, storage and disposal of hazardous chemicals found in the laboratory including, but not limited to, Material Safety Data Sheets received from the chemical supplier.

(4) Training.

(A) Employee training shall include;

1. Methods and observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

2. The physical and health hazards of chemicals in the work area; and

3. The measures employees 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.

(B) The employee shall be trained on the applicable details of the employer's written Chemical Hygiene Plan.

(g) Medical consultation and medical examinations.

(1) The employer shall provide all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, under the following circumstances;

(A) Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee shall be provided an opportunity to receive an appropriate medical examination.

(B) Where exposure monitoring reveals an exposure level above the action level (or in the absence of an action level, the exposure limit) for a Cal/OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for the affected employee as prescribed by the particular standard.

(C) Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.

(2) All medical examinations and consultations shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place.

(3) Information provided to the physician. The employer shall provide the following information to the physician;

(A) The identity of the hazardous chemical(s) to which the employee may have been exposed;

(B) A description of the conditions under which the exposure occurred including quantitative exposure data, if available; and

(C) A description of the signs and symptoms of exposure that the employee is experiencing, if any.

(4) Physician's written opinion.
(A) For examination or consultation required under this standard, the employer shall obtain a written opinion from the examining physician which shall include the following;

1. Any recommendation for further medical follow-up;

2. The results of the medical examination and any associated tests, if requested by the employee;

3. Any medical condition which may be revealed in the course of the examination which may place the employee at increased risk as a result of exposure to a hazardous chemical found in the workplace; and

4. A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.

(B) The written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure.

(h) Hazard identification.

(1) With respect to labels and material safety data sheets;

(A) Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.

(B) Employers shall maintain in the workplace any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible to laboratory employees during each work shift when they are in their work area(s).

(2) The following provisions shall apply to chemical substances developed in the laboratory;

(A) If the composition of the chemical substance which is produced exclusively for the laboratory's use is known, the employer shall determine if it is a hazardous chemical as defined in subsection 5191(b). If the chemical is determined to be hazardous, the employer shall provide appropriate training as required under subsection 5191(f).

(B) If the chemical produced is a byproduct whose composition is not known, the employer shall assume that the substance is hazardous and shall implement subsection 5191(e).

(C) If the chemical substance is produced for commercial purposes by another user outside of the laboratory, the employer shall comply with the Hazard Communication Standard (Section 5194) including the requirements for preparation of material safety data sheets and labeling.

(i) Use of respirators.

Where the use of respirators is necessary to maintain exposure below permissible exposure limits, the employer shall provide, at no cost to the employee, the proper respiratory equipment. Respirators shall be selected and used in accordance with the requirements of Section 5144.

(j) Recordkeeping.

(1) The employer shall establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required by this regulation.

(2) The employer shall ensure that such records are kept, transferred, and made available in accordance with Section 3204.
(k) Dates

(1) Employers shall have developed and implemented a written Chemical Hygiene Plan no later than October 31, 1991.

(2) Subsection (a) (2) shall not take effect until the employer has developed and implemented a written Chemical Hygiene Plan.

(l) Appendices. The information contained in the appendices is not intended, by itself, to create any additional obligations not otherwise imposed or to detract from any existing obligation.

Appendix C

INJURY and ILLNESS PREVENTION PROGRAM
Construction Safety Orders, Title 8 CCR 1509
General Industry Safety Orders, Title 8 CCR 3203
1509. Injury and Illness Prevention Program.

(a) Every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program in accordance with section 3203 of the General Industry Safety Orders.
(b) Every employer shall adopt a written Code of Safe Practices which relates to the employer's operations. The Code shall contain language equivalent to the relevant parts of Plate A-3 of the Appendix.
(c) The Code of Safe Practices shall be posted at a conspicuous location at each job site office or be provided to each supervisory employee who shall have it readily available.
(d) Periodic meetings of supervisory employees shall be held under the direction of management for the discussion of safety problems and accidents that have occurred.
(e) Supervisory employees shall conduct "toolbox" or "tailgate" safety meetings, or equivalent, with their crews at least every 10 working days to emphasize safety.


INJURY & ILLNESS PREVENTION PROGRAM

§ 3203. Injury and Illness Prevention Program

(a) Effective July 1, 1991, every employer shall establish, implement and maintain an effective Injury and Illness Prevention Program (Program). The Program shall be in writing and, shall, at a minimum:

(1) Identify the person or persons with authority and responsibility for implementing the Program.

(2) Include a system for ensuring that employees comply with safe and healthy work practices. Substantial compliance with this provision includes recognition of employees who follow safe and healthful work practices, training and retraining programs, disciplinary actions, or any other such means that ensures employee compliance with safe and healthful work practices.

(3) Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to encourage employees to inform the employer of hazards at the worksite without fear of reprisal. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees.

EXCEPTION: Employers having fewer than 10 employees shall be permitted to communicate to and instruct employees orally in general safe work practices with specific instructions with respect to hazards unique to the employees' job assignments as compliance with subsection (a)(3).

(4) Include procedures for identifying and evaluating work place hazards including scheduled periodic inspections to identify unsafe conditions and work practices. Inspections shall be made to identify and evaluate hazards.
(A) When the Program is first established;

EXCEPTION: Those employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with previously existing section 3203.

(B) Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard; and

(C) Whenever the employer is made aware of a new or previously unrecognized hazard.

(5) Include a procedure to investigate occupational injury or occupational illness.

(6) Include methods and/or procedures for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:

(A) When observed or discovered; and,

(B) When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.

(7) Provide training and instruction:

(A) When the program is first established;

EXCEPTION: Employers having in place on July 1, 1991, a written Injury and Illness Prevention Program complying with the previously existing Accident Prevention Program in Section 3203.

(B) To all new employees;

(C) To all employees given new job assignments for which training has not previously been received;

(D) Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;

(E) Whenever the employer is made aware of a new or previously unrecognized hazard; and,

(F) For supervisors to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed.

(b) Records of the steps taken to implement and maintain the Program shall include:

(1) Records of scheduled and periodic inspections required by subsection (a)(4) to identify unsafe conditions and work practices, including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices. These records shall be maintained for at least one (1) year; and

EXCEPTION: Employers with fewer than 10 employees may elect to maintain the inspection records only until the hazard is corrected.

(2) Documentation of safety and health training required by subsection (a)(7) for each employee, including employee name or other identifier, training dates, type(s) of training, and training providers. This documentation shall be maintained for at least one (1) year.
EXCEPTION NO. 1: Employers with fewer than 10 employees can substantially comply with the documentation provision by maintaining a log of instructions provided to the employee with respect to the hazards unique to the employees’ job assignment when first hired or assigned new duties.

EXCEPTION NO. 2: Training records of employees who have worked for less than one (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon termination of employment.

Exception No. 3: For Employers with fewer than 20 employees who are in industries that are not on a designated list of high-hazard industries established by the Department of Industrial Relations (Department) and who have a Workers' Compensation Experience Modification Rate of 1.1 or less, and for any employers with fewer than 20 employees who are in industries on a designated list of low-hazard industries established by the Department, written documentation of the Program may be limited to the following requirements:

A. Written documentation of the identity of the person or persons with authority and responsibility for implementing the program as required by subsection (a)(1).

B. Written documentation of scheduled periodic inspections to identify unsafe conditions and work practices as required by subsection (a)(4).

C. Written documentation of training and instruction as required by subsection (a)(7).

Exception No. 4: Local governmental entities (any county, city, city and county, or district, or any public or quasi-public corporation or public agency therein, including any public entity, other than a state agency, that is a member of, or created by, a joint powers agreement) are not required to keep records concerning the steps taken to implement and maintain the Program.

Note 1: Employers determined by the Division to have historically utilized seasonal or intermittent employees shall be deemed in compliance with respect to the requirements for a written Program if the employer adopts the Model Program prepared by the Division and complies with the requirements set forth therein.

Note 2: Employers in the construction industry who are required to be licensed under Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code may use records relating to employee training provided to the employer in connection with an occupational safety and health training program approved by the Division, and shall only be required to keep records of those steps taken to implement and maintain the program with respect to hazards specific to the employee's job duties.

(c) Employers who elect to use a labor/management safety and health committee to comply with the communication requirements of subsection (a)(3) of this section shall be presumed to be in substantial compliance with subsection (a)(3) if the committee:

(1) Meets regularly, but not less than quarterly;

(2) Prepares and makes available to the affected employees, written records of the safety and health issues discussed at the committee meetings and, maintained for review by the Division upon request. The committee meeting records shall be maintained for at least one (1) year;

(3) Reviews results of the periodic, scheduled worksite inspections;

(4) Reviews investigations of occupational accidents and causes of incidents resulting in occupational injury, occupational illness, or exposure to hazardous substances and, where appropriate, submits suggestions to management for the prevention of future incidents;
(5) Reviews investigations of alleged hazardous conditions brought to the attention of any committee member. When determined necessary by the committee, the committee may conduct its own inspection and investigation to assist in remedial solutions;

(6) Submits recommendations to assist in the evaluation of employee safety suggestions; and

(7) Upon request from the Division, verifies abatement action taken by the employer to abate citations issued by the Division.

Title 8 CCR 3204 ACCESS TO EMPLOYEE EXPOSURE & MEDICAL RECORDS

(a) Purpose. The purpose of this section is to provide employees and their designated representatives and authorized representatives of the Chief of the Division of Occupational Safety and Health (DOSH) a right of access to relevant exposure and medical records. Access by employees, their representatives, and representatives of DOSH is necessary to yield both direct and indirect improvements in the detection, treatment, and prevention of occupational disease. Each employer is responsible for assuring compliance with this section, but the activities involved in complying with the access to medical records provisions can be carried out, on behalf of the employer, by the physician or other health care personnel in charge of employee medical records. Except as expressly provided, nothing in this section is intended to affect existing legal and ethical obligations concerning the maintenance and confidentiality of employee medical information, the duty to disclose information to a patient/employee or any other aspect of the medical-care relationship, or affect existing legal obligations concerning the protection of trade secret information.

(b) Scope and Application.

(1) This section applies to each employer who makes, maintains, contracts for, or has access to employee exposure or medical records, or analyses thereof, pertaining to employees exposed to toxic substances or harmful physical agents.

(2) This section applies to all employee exposure and medical records, and analyses thereof, of employees exposed to toxic substances or harmful physical agents, whether or not the records are related to specific occupational safety and health standards.

(3) This section applies to all employee exposure and medical records, and analyses thereof, made or maintained in any manner by the employer, both on an in-house and on a contractual (e.g., fee-for-service) basis. Each employer shall assure that the preservation and access requirements of this section are complied with regardless of the manner in which records are made or maintained.

(c) Definitions.

(1) Access. The right and opportunity to examine and copy.

(2) Analysis Using Exposure or Medical Records. Any compilation of data, or any research, statistical or other study based at least in part on information collected from individual employee exposure or medical records or information collected from health insurance claims records, provided that either the analysis has been reported to the employer or no further work is currently being done by the person responsible for preparing the analysis.

(3) Designated Representative. Any individual or organization to whom an employee gives written authorization to exercise a right of access. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative for the purpose of access to employee exposure records and analyses using exposure or medical records, but access to an employee's medical records requires the employee's written consent.

(4) Employee. A current employee, a former employee, or an employee being assigned or transferred to work where there will be exposure to toxic substances or harmful physical agents. For the purpose of this section, a deceased or legally incapacitated employee's legal representative may exercise all of the employee's rights under this section.
(5) Employee Exposure Record. A record containing any of the following kinds of information concerning employee exposure to toxic substances or harmful physical agents:

(A) Environmental (workplace) monitoring or measuring, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained;

(B) Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs;

(C) Material safety data sheets indicating that the material may pose a hazard to human health; or

(D) In the absence of (A), (B) or (C) above, a record, such as a chemical inventory or any other record, which reveals the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent and where and when the toxic substance or harmful physical agent was used.

(6) Employee Medical Record. A record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician.

(A) Employee medical record includes the following:

1. Medical and employment questionnaires or histories (including job description and occupational exposures);

2. The results of medical examinations (pre-employment, pre-assignment, periodic, or episodic) and laboratory tests (including chest and other X-ray examinations taken for the purposes of establishing a base-line or detecting occupational illness, and all biological monitoring not defined as an "employee exposure record");

3. Medical opinions, diagnoses, progress notes, and recommendations;

4. First-aid records;

5. Descriptions of treatments and prescriptions; and

6. Employee medical complaints.

(B) Employee medical record does not include medical information in the form of:

1. Physical specimens (e.g. blood or urine samples) which are routinely discarded as a part of normal medical practice; or

2. Records concerning health insurance claims if maintained separately from the employer's medical program and its records, and not accessible to the employer by employee name or other direct personal identifier (e.g., social security number, payroll number, etc.); or

3. Records created solely in preparation for litigation which are protected from discovery under the applicable rules of procedure or evidence; or

4. Records concerning voluntary employee assistance programs (alcohol, drug abuse, or personal counseling programs) if maintained separately from the employer's medical program and its records.

(7) Employer. A current employer, a former employer, or a successor employer.
(8) **Exposure or Exposed.** Employee subject to a toxic substance or harmful physical agent in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes past exposure and potential (e.g., accidental or possible) exposure, but does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations.

(9) **Health Professional.** A physician, occupational health nurse, industrial hygienist, toxicologist, or epidemiologist providing medical or other occupational health services to exposed employees.

(10) **Record.** Any item, collection, or grouping of information regardless of the form or process by which it is maintained (e.g., paper document, microfiche, microfilm, X-ray film, or automated data processing).

(11) **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.

(12) **Specific Written Consent.**

(A) A written authorization containing the following:

1. The name and signature of the employee authorizing the release of medical information;
2. The date of the written authorization;
3. The name of the individual or organization that is authorized to release the medical information;
4. The name of the designated representative (individual or organization) that is authorized to receive the released information;
5. A general description of the medical information that is authorized to be released;
6. A general description of the purpose for release of the medical information; and
7. A date or condition upon which the written authorization will expire (if less than one year).

(B) A written authorization does not operate to authorize the release of medical information not in existence on the date of written authorization, unless the release of future information is expressly authorized, and does not operate for more than one year from the date of written authorization.

(C) A written authorization may be revoked in writing prospectively at any time.

(13) **Toxic Substance or Harmful Physical Agent.** Any chemical substance, biological agent (bacteria, virus, fungus, etc.), or physical stress (noise, heat, cold, vibration, repetitive motion, ionizing and non-ionizing radiation, hypo- or hyperbaric pressure, etc.) which:

(A) Is regulated by any California or Federal law or rule due to a hazard to health;

(B) Is listed in the latest printed edition of the National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS) (See Appendix B);

(C) Has yielded positive evidence of an acute or chronic health hazard in human, animal, or other biological testing conducted by, or known to, the employer; or

(D) Is the subject of a material safety data sheet kept by or known to the employer which indicates that the material may pose a hazard to human health.
(14) Trade Secret. Any confidential formula, pattern, process, device, or information or compilation of information that is used in an employer's business and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

(d) Preservation of Records.

(1) Unless a specific occupational safety and health regulation provides a different period of time, each employer shall assure the preservation and retention of records as follows:

(A) Employee Medical Records. The medical record for each employee shall be preserved and maintained for at least the duration of employment plus thirty (30) years, except that the following types of records need not be retained for any specific period:

1. Health insurance claims records maintained separately from the employer's medical program and its records;
2. First aid records (not including medical histories) of one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and the like which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job, if made on-site by a non-physician and if maintained separately from the employer's medical program and its records; and
3. The medical records of employees who have worked for less than (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon the termination of employment.

(B) Employee Exposure Records. Each employee exposure record shall be preserved and maintained for at least thirty (30) years, except that:

1. Background data to environmental (workplace) monitoring or measuring, such as laboratory reports and worksheets, need only be retained for one (1) year so long as the sampling results, the collection methodology (sampling plan), a description of the analytical and mathematical methods used, and a summary of other background data relevant to interpretation of the results are retained for at least thirty (30) years;
2. Material safety data sheets shall be retained as necessary to comply with the provisions of section 5194. Where material safety data sheets are destroyed, a record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used shall be retained for at least thirty years; and
3. Section 3204(c)(5)(D) records concerning the identity of a substance or agent need not be retained for any specified period as long as some record of the identity (chemical name if known) of the substance or agent, where it was used, and when it was used is retained for at least thirty years.

4. Biological monitoring results designated as exposure records by specific occupational safety and health regulations shall be preserved and maintained as required by the specific regulation.

(C) Analyses Using Exposure or Medical Records. Each analysis using exposure or medical records shall be preserved and maintained for at least thirty (30) years.

(2) Nothing in this section is intended to mandate the form, manner, or process by which an employer preserves a record so long as the information contained in the record is preserved and retrievable, except that chest X-ray films shall be preserved in their original state.

(e) Access to Records.

(1) General.
(A) Whenever an employee or designated representative requests access to a record, the employer shall assure that access is provided in a reasonable time, place, and manner, but in no event later than fifteen (15) days after the request for access is made. Before the time for providing access has expired, an employer after notice to the employee or designated representative may, by notification to be followed in writing, request an extension of time from the Chief, Division of Occupational Safety and Health, which shall be granted upon a finding of good cause by the Chief.

(B) The employer may require of the requester only such information as should be readily known to the requester and which may be necessary to locate or identify the records being requested (e.g., dates and locations where the employee worked during the time period in question).

(C) Whenever an employee or designated representative requests a copy of a record, the employer shall assure that either:

1. A copy of the record is provided without cost to the employee or designated representative;
2. The necessary mechanical copying facilities (e.g., photocopying) are made available without cost to the employee or designated representative for copying the record; or
3. The record is loaned to the employee or designated representative for a reasonable time to enable a copy to be made.

(D) In the case of an original X-ray, the employer may restrict access to on-site examination or make other suitable arrangements for the temporary loan of the X-ray.

(E) Whenever a record has been provided previously without cost to an employee or designated representative, the employer may charge reasonable, non-discriminatory administrative costs (i.e., search and copying expenses but not including overhead expenses) for additional copies of the record.

EXCEPTIONS:

1. An employer shall not charge for an initial request for a copy of new information that has been added to a record which was previously provided.
2. An employer shall not charge for an initial request by a recognized or certified collective bargaining agent for a copy of an employee exposure record or an analysis using exposure or medical records.

(F) Nothing in this section is intended to preclude employees and collective bargaining agents from collectively bargaining to obtain access to information in addition to that available under this section.

(G) Whenever an employee requests access to a specific written consent submitted to the employer, the employer shall comply pursuant to the provisions for affording employee access to records stipulated by sections 3204(e)(1)(A)-(C).

(2) Employee and Designated Representative Access.

(A) Employee Exposure Records.

1. Except as limited by section 3204(f), each employer shall, upon request, assure the access of each employee and designated representative to employee exposure records relevant to the employee. For the purpose of this section, exposure records relevant to the employee consist of:

a. A record containing measurements or monitoring results of the amount of a toxic substance or harmful physical agent to which the employee is or has been exposed;
b. In the absence of such directly relevant records, such records of other employees with past or present job duties or working conditions related to or similar to those of the employee to the extent necessary to reasonably indicate the amount and nature of the toxic substances or harmful physical agents to which the employee is or has been subjected; and

c. Exposure records to the extent necessary to reasonably indicate the amount and nature of the toxic substance or harmful physical agent at workplaces or working conditions to which the employee is being assigned or transferred.

2. Requests by designated representatives for unconsented access to employee exposure records shall be in writing and shall specify with reasonable particularity:

a. The records requested to be disclosed; and

b. The occupational health need for gaining access to these records.

(B) Employee Medical Records.

1. Each employer shall, upon request, assure the access of each employee to employee medical records of which the employee is the subject, except as provided in section 3204(e)(2)(B)4.

2. Each employer shall, upon request, assure the access of each designated representative to the employee medical records of any employee who has given the designated representative specific written consent.

NOTE: Appendix A to this section contains a sample form which may be used to establish specific written consent for access to employee medical records.

3. Whenever access to employee medical records is requested in accordance with section 3204(e)(2)(B)1 or 2, a physician representing the employer may recommend that the employee or designated representative: consult with the physician for the purposes of reviewing and discussing the records requested; accept a summary of material facts and opinions in lieu of the records requested; or accept release of the requested records only to a physician or other designated representative.

4. Whenever an employee requests access to his or her employee medical records and a physician representing the employer believes that direct employee access to information contained in the records regarding a specific diagnosis of a terminal illness or a psychiatric condition could be detrimental to the employee's health, the employer may deny the employee's request for direct access to this information only, and the employer shall inform the employee that access will only be provided to a designated representative of the employee having specific written consent.

5. Where a designated representative with specific written consent requests access to information withheld in accordance with section 3204(e)(2)(B)4, the employer shall assure the access of the designated representative to this information even when it is known that the designated representative will give the information to the employee.

NOTE: Nothing in this section precludes a physician, nurse, or other responsible health care personnel maintaining employee medical records from deleting from requested medical records the identity of a family member, personal friend, or fellow employee who has provided confidential information concerning an employee's health status.

(C) Analyses Using Exposure or Medical Records.
1. Each employer shall, upon request, assure the access of each employee and designated representative to each analysis using exposure or medical records concerning the employee's working conditions or workplace.

2. Whenever access is requested to an analysis which reports the contents of employee medical records by either direct identifier (name, address, social security number, payroll number, etc.) or by information which could reasonably be used under the circumstances indirectly to identify specific employees (exact age, height, weight, race, sex, date of initial employment, job title, etc.), the employer shall assure that personal identifiers are removed before access is provided. If the employer can demonstrate that removal of personal identifiers from an analysis is not feasible, access to the personally identifiable portions of the analysis need not be provided.

(3) Division of Occupational Safety and Health Access.

(A) Each employer shall, upon request, and without derogation of any rights under the Constitution of the United States, the Constitution of the State of California or the California Occupational Safety and Health Act of 1973, Labor Code sections 6300 et seq., that the employer chooses to exercise, assure the prompt access of representatives of the Chief of the Division of Occupational Safety and Health (DOSH) to employee exposure and medical records and to analyses using exposure or medical records.

(B) Whenever DOSH seeks access to personally identifiable employee medical information by presenting to the employer a written access order, the employer shall prominently post a copy of the written access order and its accompanying cover letter for at least fifteen (15) working days.

(f) Trade Secrets.

(1) Except as provided in section 3204(f)(2), nothing in this section precludes an employer from deleting from records requested by a health professional, an employee or designated representative any trade secret data which disclosers manufacturing processes, or discloses the percentage of a chemical substance in a mixture, as long as the health professional, employee or designated representative is notified that such information has been deleted. Whenever deletion of trade secret information substantially impairs evaluation of the place where or the time when exposure to a toxic substance or harmful physical agent occurred, the employer shall provide alternative information which is sufficient to permit the requesting party to identify where and when exposure occurred.

(2) The employer may withhold the specific chemical identity, including the chemical name and other specific identification of a toxic substance from a disclosable record provided that:

(A) Evidence is included to support the claim that the information withheld is a trade secret;

(B) All other available information on the properties and effects of the toxic substance is disclosed;

(C) The employer informs the requesting party that the specific chemical identity is being withheld as a trade secret; and

(D) The specific chemical identity is made available to health professionals, employees and designated representatives in accordance with the specific applicable provisions of this subsection, section 3204(f).

(3) Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a toxic substance is necessary for emergency or first-aid treatment, the employer shall immediately disclose the specific chemical identity of a trade secret chemical to the treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of section 3204(f)(4) and (f)(5), as soon as circumstances permit.
(4) In non-emergency situations, an employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under section 3204(f)(2), to a health professional, employee, or designated representative 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 chemicals 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 professional, employee or designated representative to provide the occupational health services described in section 3204(f)(4)(B):

1. The properties and effects of the chemical;
2. Measures for controlling worker's exposure to the chemical;
3. Methods of monitoring and analyzing worker's exposure to the chemical; and
4. Methods of diagnosing and treating harmful exposures to the chemical.

(D) The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and

(E) The health professional, employee or designated representative and the employer or contractor of the services of the health professional or designated representative agree in a written confidentiality agreement that the health professional, employee or designated representative will not use the trade secret information for any purpose other than the health needs(s) asserted and agree not to release the information under any circumstances other than to DOSH, as provided in section 3204(f)(9), except as authorized by the terms of the agreement or by the employer.

(5) The confidentiality agreement authorized by section 3204(f)(4)(D):

(A) May restrict the use of the information to the health purposes indicated in the written statement of need;

(B) May provide for appropriate legal remedies in the event of a breach of the agreement, including stipulation of a reasonable pre-estimate of likely damages; and

(C) May not include requirements for the posting of a penalty bond.
(6) Nothing in this section is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.

(7) If the health professional, employee or designated representative receiving the trade secret information decides that there is a need to disclose it to DOSH, the employer who provided the information shall be informed by the health professional prior to, or at the same time as, such disclosure.

(8) If the employer denies a written request for disclosure of a specific chemical identity, the denial must:

(A) Be provided to the health 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.

(9) The health professional, employee or designated representative whose request for information is denied under section 3204(f)(4) may refer the request and the written denial of the request to DOSH for consideration.

(10) When a health professional, employee or designated representative refers a denial to DOSH under section 3204(f)(9), DOSH shall consider the evidence to determine if:

(A) The employer has supported the claim that the specific chemical identity is a trade secret;

(B) The health 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 professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.

(11) (A) If DOSH determines that the specific chemical identity requested under section 3204(f)(4) is not a bona fide trade secret, or that it is a trade secret but the requesting health professional, employee or designated representative has a legitimate medical or occupational health need for the information and has executed a written confidentiality agreement with adequate means for complying with the terms of such agreement, the employer will be subject to citation by DOSH.

(B) If an employer demonstrates to DOSH that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a specific chemical identity trade secret, the Chief of DOSH may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health needs are met without an undue risk of harm to the employer.

(12) Notwithstanding the existence of a trade secret claim, and employer shall, upon request, disclose to the Chief of DOSH any information which this section requires the employer to make available. Where there is a trade secret claim, such claim shall be made no later than at the time the information is provided to the Chief of DOSH so that dutiable determinations of trade secret status can be made and the necessary protection can be implemented.
(13) Nothing in this section shall be construed as requiring the disclosure under any circumstances of process or percentage of mixture information which is a trade secret.

(g) Employee Information.

(1) Upon an employee's first entering into employment, and at least annually thereafter, each employer shall inform current employees covered by this section of the following:

(A) The existence, location, and availability of any records covered by this section;

(B) The person responsible for maintaining and providing access to records; and

(C) Each employee's rights of access to these records.

(2) Each employer shall keep a copy of this section and its appendices and make copies readily available, upon request, to employees. The employer shall also distribute to current employees any informational materials concerning this section which are made available to the employer by the Chief of DOSH.

(h) Transfer of Records.

(1) Whenever an employer is ceasing to do business, the employer shall transfer all records subject to this section to the successor employer. The successor employer shall receive and maintain these records.

(2) Whenever an employer is ceasing to do business and there is no successor employer to receive and maintain the records subject to this standard, the employer shall notify affected employees of their rights of access to records at least three (3) months prior to the cessation of the employer's business.

(3) Whenever an employer either is ceasing to do business and there is no successor employer to receive and maintain the records, or intends to dispose of any records required to be preserved for at least thirty (30) years, the employer shall:

(A) Transfer the records to the Director of the National Institute for Occupational Safety and Health (NIOSH) if so required by a specific occupational safety and health standard; or

(B) Notify the Director of NIOSH in writing of the impending disposal of records at least three (3) months prior to the disposal of the records.

(4) Where an employer regularly disposes of records required to be preserved for at least thirty (30) years, the employer may, with at least three (3) month's notice, notify the Director of NIOSH on an annual basis of the records intended to be disposed of in the coming year.

(i) Appendices. The information contained in the appendices to this section is not intended, by itself, to create any additional obligations not otherwise imposed by this section or to detract from any existing obligation.
Authorization Letter for the Release of Employee Medical Record Information to a Designated Representative

I, ____________________________, hereby authorize ________________________________

(Full name of worker/patient) (Individual or organization holding medical records)

to release to ____________________________, the following medical information from my personal

(Individual or organization authorized to receive the medical information)

medical records:

(Describe generally the information desired to be released.)

I give my permission for this medical information to be used for the following purpose: but I do not give permission for any other use or re-disclosure of this information.

Full name of Employee or Legal Representative

_____________________________________________________

Signature of Employee or Legal Representative

_____________________________________________________

Date of Signature

_____________________________________________________

(NOTE.--You may want to place additional restrictions on this authorization letter. For example, you may want to (1) specify a particular expiration date for this letter (if less than one year); (2) describe medical information to be created in the future that you intend to be covered by this authorization letter; or (3) describe portions of the medical information in your records which you do not intend to be released as a result of this letter.) [Your right of access to a specific written consent form submitted to your employer is provided by section 3204(e)(1)(D).]
Availability of NIOSH Registry of Toxic Effects of Chemical Substances (RTECS)

Section 3204 applies to all employee exposure and medical records, and analyses thereof, of employees exposed to toxic substances or harmful physical agents [subsection (b)(2)]. The term "toxic substance or harmful physical agent" is defined by section 3204(c)(13) to encompass chemical substances, biological agents, and physical stresses for which there is evidence of harmful health effects. The regulation uses the latest printed edition of the National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS) as one of the chief sources of information as to whether evidence of harmful health effects exists. If a substance is listed in the latest printed RTECS, the regulation applies to exposure and medical records (and analyses of these records) relevant to employees exposed to the substance.

It is appropriate to note that the regulation does not require that employers purchase a copy of RTECS; and many employers need not consult RTECS to ascertain whether their employee exposure or medical records are subject to the regulation. Employers who do not currently have the latest printed edition of the NIOSH RTECS, however, may desire to obtain a copy. The RTECS is issued in an annual printed edition as mandated by section 20(a)(6) of the Occupational Safety and Health Act [29 U.S.C. 669(a)(6)].

The Introduction to the 1980 printed edition describes the RTECS as follows:

"The 1980 edition of the Registry of Toxic Effects of Chemical Substances, formerly known as the Toxic Substances list, is the ninth revision prepared in compliance with the requirements of section 20(a)(6) of the Occupational Safety and Health Act of 1970 (Public Law 91-596). The original list was completed on June 28, 1971, and has been updated annually in book format. Beginning in October 1977, quarterly revisions have been provided in microfiche. This edition of the Registry contains 168,096 listings of chemical substances: 45,156 are names of different chemicals with their associated toxicity data and 122,940 are synonyms. This edition includes approximately 5,900 new chemical compounds that did not appear in the 1979 Registry." (p. xi)

"The Registry's purposes are many, and it serves a variety of users. It is a single source document for basic toxicity information and for other data, such as chemical identifiers and information necessary for the preparation of safety directives and hazard evaluations for chemical substances. The various types of toxic effects linked to literature citations provide researchers and occupational health scientists with an introduction to the toxicological literature, making their own review of the toxic hazards of a given substance easier. By presenting data on the lowest reported doses that produce effects by several routes of entry in various species, the Registry furnishes valuable information to those responsible for preparing safety data sheets for chemical substances in the workplace. Chemical and production engineers can use the Registry to identify the hazards which may be associated with chemical intermediates in the development of final products, and thus can more readily select substitutes or alternate processes which may be less hazardous. Some organizations, including health agencies and chemical companies, have included the NIOSH Registry accession numbers with the listing of chemicals in their files to reference toxicity information associated with those chemicals. By including foreign language chemical names, a start has been made toward providing rapid identification of substances produced in other countries." (p. xi)

"In this edition of the Registry, the editors intend to identify 'all known toxic substances' which may exist in the environment and to provide pertinent data on the toxic effects from known doses entering an organism by any route described." (p. xi)

"It must be reemphasized that the entry of a substance in the Registry does not automatically mean that it must be avoided. A listing does mean, however, that the substance has the documented potential of being harmful if
misused, and care must be exercised to prevent tragic consequences. Thus, the Registry lists many substances that are common in everyday life and are in nearly every household in the United States. One can name a variety of such dangerous substances: prescription and non-prescription drugs; food additives; pesticide concentrates, sprays, and dusts; fungicides; herbicides; paints; glazes, dyes; bleaches and other household cleaning agents; alkalies; and various solvents and diluents. The list is extensive because chemicals have become an integral part of our existence." (p. xiv)


Some employers may also desire to subscribe to the quarterly update to the RTECS which is published in a microfiche edition. An annual subscription to the quarterly microfiche may be purchased from the GPO (Order the "Microfiche Edition, Registry of Toxic Effects of Chemical Substances"). Both the printed edition and the microfiche edition of RTECS are available for review at many university and public libraries throughout the country. The latest RTECS editions may also be examined at the OSHA Technical Data Center, Room N2439--Rear, United States Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210 (202-523-9700), or at any OSHA Regional or Area Office (See, major city telephone directories under United States Government--Labor Department).

APPENDIX E

REQUEST FOR MEDICAL & EXPOSURE RECORDS ACCESS
CALIFORNIA STATE UNIVERSITY, BAKERSFIELD

Request for medical and exposure records access

I, ______________________________________________________________________________,
(Please PRINT: Full Name of Employee or Legal Representative)

hereby request access to (my) ________________________________________________________,
(Please PRINT: Full Name of Employee)

☐ Medical Record ☐ Exposure Record

as it/they relate(s) to the following conditions of (my) employment or place of employment:

____________________________________________________________________________________

I understand I will be provided access to the requested record(s) within a reasonable time, place, and manner,
but in no event later than fifteen (15) days after the date of this request. I further understand that whenever
a record has been provided previously without cost, I may be charged reasonable, non-discriminatory
administrative costs for additional copies.

________________________________________
(Signature of Employee or Legal Representative)

________________________________________
(Date of Signature)
APPENDIX F

HAZARD COMMUNICATION PROGRAM INFORMATION

PURSUANT TO CAL-Osha REGULATION - GENERAL INDUSTRY SAFETY ORDERS 3204 - AND UNIVERSITY POLICY, ALL EMPLOYEES HAVE THE RIGHT TO SEE AND COPY:

- Relevant medical records and records of exposure to toxic substances or harmful physical agents
- Material Safety Data Sheets or other available information on chemicals or substances used in the workplace, or to which employees may be exposed

THESE RECORDS MAY BE OBTAINED BY COMPLETING THE "REQUEST FOR MEDICAL AND EXPOSURE RECORDS FORM" WHICH IS AVAILABLE IN THE SAFETY AND RISK MANAGEMENT OFFICE (S&RM) extension 2066 or 6320.

MATERIAL SAFETY DATA SHEETS (MSDSs)

A list of substances classified as "hazardous by the State of California is located in the S&RM Office. MSDSs are available for review in your work area, if you need assistance with an MSDS, contact your Supervisor, or S&RM.

The MSDS lists toxicity information, flammability and explosion hazard data, handling precautions, and procedures to use in case of spills or contact. The appearance or absence of a material on this list is not, in itself, a reliable indicator of hazard. Inform your supervisor or call S&RM before using any unfamiliar chemical.

IN A CHEMICAL EMERGENCY

Do not hesitate to follow these procedures because a spill or contact seems too trivial. In case of personal contact with any chemical:

**For skin contact**, flood the affected area with water immediately for at least 15 minutes. If a substantial portion of the body is involved, use a safety shower. If the chemical is toxic, or if its toxic properties are unknown, call campus police at 911 or 2111 and S&RM at 2066 or 6320.

**For eye contact**, flood eyes with water and continue flooding for at least 15 minutes. Remove contact lenses, if possible, or move to corner of eye. Immediately call campus police at 911 or 2111 and S&RM at 2066 or 6320.

**For inhalation or ingestion**, follow directions on the product label or MSDS. Call campus police at 911 or 2111 and S&RM at 2066 or 6320.

**In case of spillage of any chemical**, check the containers or MSDS for instructions. If no instructions are immediately available, or if the spill is large or the chemical spilled has definite or unknown corrosive, explosive, or toxic properties evacuate, seal the area and call campus police at 911 or 2111 and S&RM at 2066 or 6320.