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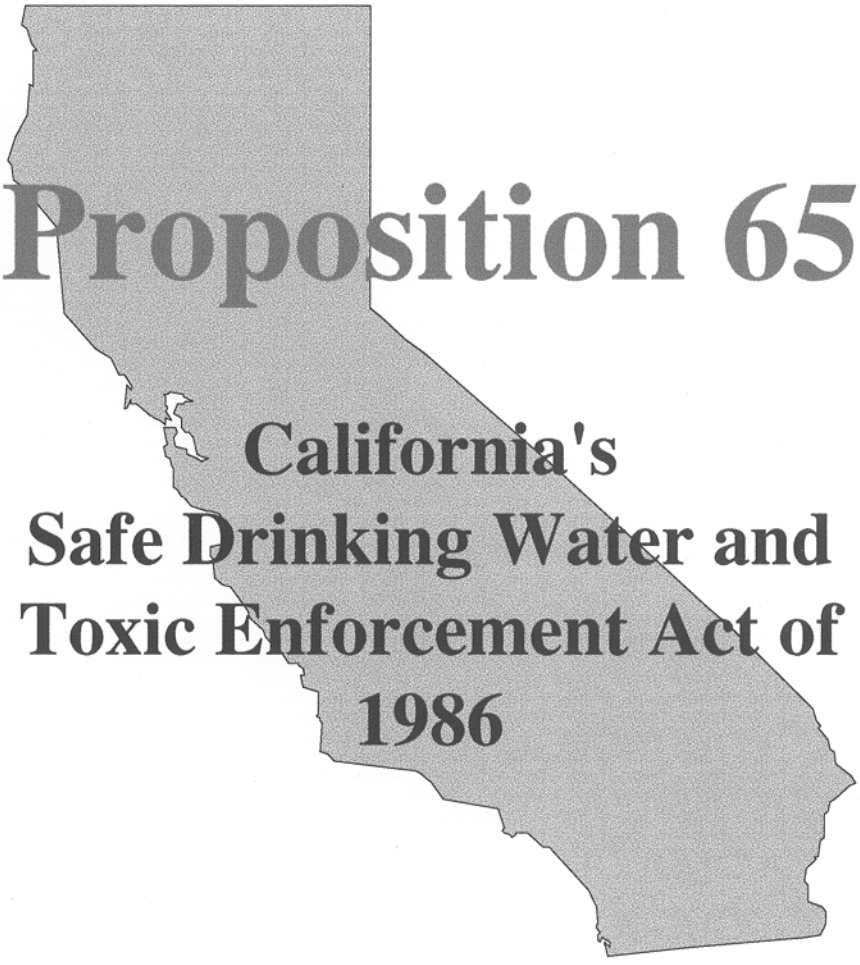

# Proposition 65

## California's Safe Drinking Water and Toxic Enforcement Act of 1986

# Desk Reference

Technology Sciences Group Inc.

# PROPOSITION 65

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# A

## Appendix A

OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

THE SAFE DRINKING WATER AND TOXIC
ENFORCEMENT ACT OF 1986
(PROPOSITION 65): A SUMMARY

The following summary has been prepared by the Office of Environmental Health Hazard Assessment, the lead agency for the implementation of the Safe Drinking Water and Toxic Enforcement Act of 1986 (commonly known as "Proposition 65"). A copy of this summary must be included as an attachment to any notice of violation served upon an alleged violator of the Act. The summary provides basic information about the provisions of the law, and is intended to serve only as a convenient source of general information. It is not intended to provide authoritative guidance on the meaning or application of the law. The reader is directed to the statute and its implementing regulations (see citations below) for further information.

Proposition 65 appears in California law as Health and Safety Code Sections 25249.5 through 25249.13. Regulations that provide more specific guidance on compliance, and that specify procedures to be followed by the State in carrying out certain aspects of the law, are found in Title 22 of the California Code of Regulations, Sections 12000 through 14000.

*WHAT DOES PROPOSITION 65 REQUIRE?*

***The "Governor's List."*** Proposition 65 requires the Governor to publish a list of chemicals that are known to the State of California to cause cancer, or birth defects or other reproductive harm. This list must be updated at least once a year. Over 550 chemicals have been listed as of May 1, 1996. Only those chemicals that are on the list are regulated under this law. Businesses that produce, use, release or otherwise engage in activities involving those chemicals must comply with the following:

***Clear and reasonable warnings.*** A business is required to warn a person before "knowingly and intentionally" exposing that person to a listed chemical. The warning given must be "clear and reasonable." This means that the warning must: (1) clearly make known that the chemical involved is known to cause cancer, or birth defects or other reproductive harm; and (2) be given in such a way that it will effectively reach the person before he or she is exposed. Exposures are exempt from the warning requirement if they occur less than twelve months after the date of listing of the chemical.

***Prohibition from discharges into drinking water.*** A business must not knowingly discharge or release a listed chemical into water or onto land where it passes or probably will pass into a source of drinking water. Discharges are exempt from this requirement if they occur less than twenty months after the date of listing of the chemical.

*DOES PROPOSITION 65 PROVIDE ANY EXEMPTIONS?*

Yes. The law exempts:

***Governmental agencies and public water utilities.*** All agencies of the federal, State or local government, as well as entities operating public water systems, are exempt.

***Businesses with nine or fewer employees.*** Neither the warning requirement nor the discharge prohibition applies to a business that employs a total of nine or fewer employees.

***Exposures that pose no significant risk of cancer.*** For chemicals that are listed as known to the State to cause cancer ("carcinogens"), a warning is not required if the business can demonstrate that the exposure occurs at a level that poses "no significant risk." This means that the exposure is calculated to result in not more than one excess case of cancer in 100,000 individuals exposed over a 70–year lifetime. The Proposition 65 regulations identify specific "no significant risk" levels for more than 250 listed carcinogens.

***Exposures that will produce no observable reproductive effect at 1,000 times the level in question.*** For chemicals known to the State to cause birth defects or other reproductive harm ("reproductive toxicants"), a warning is not required if the business can demonstrate that the exposure will produce no observable effect, even at 1,000 times the level in question. In other words, the level of exposure must be below the "no observable effect level (NOEL)," divided by a 1,000–fold safety or uncertainty factor. The "no observable effect level" is the highest dose level which has not been associated with an observable adverse reproductive or developmental effect.

***Discharges that do not result in a "significant amount" of the listed chemical entering into any source of drinking water.*** The prohibition from discharges into drinking water does not apply if the discharger is able to demonstrate that a "significant amount" of the listed chemical has not, does not, or will not enter any drinking water source, and that the discharge complies with all other applicable laws, regulations, permits, requirements, or orders. A "significant amount" means any detectable amount, except an amount that would meet the "no significant risk" or "no observable effect" test if an individual were exposed to such an amount in drinking water.

*HOW IS PROPOSITION 65 ENFORCED?*

Enforcement is carried out through civil lawsuits. These lawsuits may be brought by the Attorney General, any district attorney, or certain city attorneys (those in cities with a population exceeding 750,000). Lawsuits may also be brought by private parties acting in the public interest, but only after providing notice of the alleged violation to the Attorney General, the appropriate district attorney and city attorney, and the business accused of the violation. The notice must provide adequate information to allow the recipient to assess the nature of the alleged violation. A notice must comply with the information and procedural requirements specified in regulations (Title 22, California Code of Regulations, Section 12903). A private party may not pursue an enforcement action directly under Proposition 65 if one of the governmental officials noted above initiates an action within sixty days of the notice.

A business found to be in violation of Proposition 65 is subject to civil penalties of up to $2,500 per day for each violation. In addition, the business may be ordered by a court of law to stop committing the violation.

*FOR FURTHER INFORMATION. . .*

Contact the Office of Environmental Health Hazard Assessment's Proposition 65 Implementation Office at (916) 445–6900.

### § 14000. Chemicals Required by State or Federal Law to Have Been Tested for Potential to Cause Cancer or Reproductive Toxicity, but Which Have Not Been Adequately Tested As Required.

(a) The Safe Drinking Water and Toxic Enforcement Act of 1986 requires the Governor to publish a list of chemicals formally required by state or federal agencies to have testing for carcinogenicity or reproductive toxicity, but that the state's qualified experts have not found to have been adequately tested as required [Health and Safety Code 25249.8(c)].

Readers should note a chemical that already has been designated as known to the state to cause cancer or reproductive toxicity is not included in the following listing as requiring additional testing for that particular toxicological endpoint. However, the "data gap" may continue to exist, for purposes of the state or federal agency's requirements. Additional information on the requirements for testing may be obtained from the specific agency identified below.

(b) Chemicals required to be tested by the California Department of Pesticide Regulation.

The Birth Defect Prevention Act of 1984 (SB 950) mandates that the California Department of Pesticide Regulation (CDPR) review chronic toxicology studies supporting the registration of pesticidal active ingredients. Missing or unacceptable studies are identified as data gaps. The studies are conducted to fulfill generic data requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), which is administered by the U.S. Environmental Protection Agency. The studies are reviewed by CDPR according to guidelines and standards promulgated under FIFRA. Thus, older studies may not meet current guidelines.

The existence of a data gap for a compound does not indicate a total lack of information on the carcinogenicity or reproductive toxicity of the compound. In some cases, information exists in the open scientific literature, but SB 950 requires specific additional information. A data gap does not necessarily indicate that an oncogenic or reproductive hazard exists. For the purposes of this list, a data gap is still considered to be present until the study is reviewed and found to be acceptable.

Following is a listing of SB 950 data gaps for oncogenicity, reproduction, and teratology studies for the first 200 pesticidal active ingredients. This list will change as data gaps are filled by additional data or replacement studies.

For purposes of this section, "onc mouse" means oncogenicity in mice, "onc rat" means oncogenicity in rats, "repro" means reproduction, "tera rodent" means teratogenicity in rodents, "tera rabbit" means teratogenicity in rabbits.

| *Chemical* | *Testing Needed* |
|---|---|
| Bendiocarb | onc rat, repro, tera rodent |
| Chloroneb | onc rat, onc mouse, repro, tera rodent, tera rabbit |
| PCP | repro, onc rat |
| Petroleum distillates, aromatic | onc rat, onc mouse, repro, tera rodent, tera rabbit |

(c) Chemicals required to be tested by the United States Environmental Protection Agency, Office of Toxic Substances.

Under Section 4(a) of the Toxic Substances Control Act, testing of a chemical is required when that chemical may present an unreasonable risk, or is produced in substantial quantities and enters the environment in substantial quantities, or may have significant or substantial human exposure.

For purposes of this section, "tera" means teratogenicity, "rtox" means reproductive toxicity, "onc" means oncogenicity.

| *Chemical* | *Testing Needed* |
|---|---|
| Alkyl (C12–13) glycidyl ether | rtox, tera |
| t–Amyl methyl ether | rtox, tera |
| Bisphenol A diglycidyl ether | onc, rtox |
| Cyclohexane* | rtox, tera |
| Glycidyl methacrylate* | tera |
| 1,6–Hexamethylene diisocyanate | rtox, tera |
| N–Methylpyrrolidone | onc, rtox, tera |
| Phenol | rtox |

* The Toxic Substances Control Act Section 4 health effects testing programs for cyclohexane and glycidyl methacrylate have been completed and the U.S. Environmental Protection Agency's review of the testing program data is currently underway.

(d) Chemicals required to be tested by the United States Environmental Protection Agency, Office of Pesticide Programs

The U.S. Environmental Protection Agency (EPA) is responsible for the regulation of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA requires EPA to register pesticides based on data adequate to demonstrate that they will not result in unreasonable adverse effects to people or the environment when used in accordance with their EPA–approved labels.

In 1988, FIFRA was amended to strengthen EPA's pesticide regulatory authority and responsibilities to reregister pesticides registered prior to 1984 to ensure they meet today's stringent scientific and regulatory standards. Reregistration requires registrants to develop up–to–date data bases for each pesticide active ingredient. As part of the reregistration process, modifications may be made to registrations, labels or tolerances to ensure they are protective of human health and the environment. Also, reregistration reviews will identify any pesticides where regulatory action may be necessary to deal with unreasonable risks. EPA has been directed to accelerate the reregistration process so that the entire process is completed by 1997. The 1988 amendments set out a five–phase schedule to accomplish this task with deadlines applying to both pesticide registrants and the EPA. These amendments are requiring a substantial number of new studies to be conducted and old studies to be reformatted for EPA review to ensure they are adequate. EPA may, in the future, request additional data or information to further evaluate any concerns over the safety of pesticide products.

The chemicals listed below are those for which data are unavailable or inadequate to characterize oncogenicity, teratogenicity, or reproductive effects potential. For purposes of this section, "onc" means oncogenicity, "tera" means teratogenicity, and "repro" means reproductive toxicity.

| *Chemical* | *Data Requirements* |
|---|---|
| Acrolein | onc, tera |
| Alkyl imidazolines | tera |
| Ametryn | repro, tera |
| 4–Aminopyridine | onc, repro, tera |
| 4–T–Amylphenol | onc, repro |
| Aquashade | onc, repro, tera |
| Bensulide | onc, repro, tera |
| Benzisothiazoline–3–one | onc, repro, tera |
| Brodifacoum | repro |
| Bromonitrostyrene | tera |
| Busan 77 | repro |
| Chlorflurenol methyl | tera |
| Chlorophacinone | tera |
| Chloropicrin | onc, repro |
| Chromated arsenicals | tera |
| Cycloate | onc |
| Cypermethrin | onc, repro, tera |
| DCNA | repro, tera |
| Dibromodicyanobutane | tera |
| Diclofop–methyl | onc, tera |
| Dicrotophos | onc, repro |
| Dihalodialkylhydantoins | onc, repro, tera |
| Dimethepin | onc, repro, tera |
| Dimethyldithiocarbamate | onc, repro, tera |
| Dinocap and its compounds | tera |
| Diphacinone and salts | onc, repro, tera |
| Diphenylamine | onc, tera |
| Dipropyl isocinchomeronate | repro |
| Diuron | onc |

| *Chemical* | *Data Requirements* |
|---|---|
| Dodine | onc, repro, tera |
| Endothall and salts | onc, repro, tera |
| Ethofumesate | onc |
| Ethoxyquin | tera |
| Fenthion | tera |
| Fenvalerate | onc, repro, tera |
| Fluvalinate | repro, tera |
| Hydroxy–methyldithiocarbamate | tera |
| Imazalil | onc |
| Inorganic chlorates | onc, repro, tera |
| Inorganic sulfites | onc, repro, tera |
| Iodine–potassium iodide | tera |
| Iprodione | tera |
| Irgasan | onc, repro, tera |
| Lamprecide | onc, repro |
| Magnesium phosphide | onc |
| Malathion | onc |
| Maneb | onc, tera |
| MCPB and salts | tera |
| Melfluidide and salts | tera |
| Mepiquat chloride | tera |
| Metaldehyde | onc, tera |
| Methoxychlor | onc, repro, tera |
| Methyl isothiocyanate | tera |
| Methyl parathion | tera |
| Methyldithiocarbamate | repro |
| MGK 264 | tera |
| Molinate | repro |
| Naphthalene | onc |
| Napthaleneacetic acid | onc, repro |
| Naphthenate salts | tera |
| Napropamide | repro |
| Niclosamide | onc, tera |
| Nicotine and derivatives | onc, tera |
| Nitrapyrin | onc, tera |
| 4–Nitrophenol | onc, repro, tera |
| Octhilinone | tera |
| Oil of Pennyroyal | tera |
| Omadine salts | onc, repro, tera |
| Oxadiazon | repro |
| Oxyfluorfen | onc |
| Pebulate | tera |
| Perfluidone | tera |
| Phenmedipham | onc |
| Phenol and salts | tera |
| 2–Phenylphenol and salts | onc, tera |
| Pine oils | tera |
| Piperonyl butoxide | tera |
| Poly (hexamethylene biguanide) | onc, repro |
| Polyethoxylated aliphatic alcohols | onc, repro, tera |
| Prometon | tera |
| Propachlor | onc |
| Propanil | onc, repro |
| Propetamphos | tera |
| Propiconazole | onc |
| Propylene oxide | tera |
| Pyrazon | onc, repro |
| Pyrethrin and derivatives | onc, tera |
| Pyrimidinone | onc, tera |
| Sethoxydim | onc |
| Siduron | onc, repro, tera |
| Sodium fluoride | tera |
| Sulfometuron–methyl | onc, tera |
| TBT–containing compounds | onc, tera |
| TCMB | onc, repro, tera |
| Temephos | onc, tera |
| Tetrachlorovinphos | onc |
| Tetramethrin | onc |
| Thiabendazole and salts | onc, repro, tera |
| Thidiazuron | onc, repro, tera |
| Thiodicarb | tera |
| Thiophanate–methyl | onc, tera |
| Thiram | onc |
| Triadimefon | onc, repro |
| Triclopyr and salts | onc |
| Vernolate | onc, repro |

Revised: January 1, 1998

History

1. New section submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 89, No. 17).
2. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 90, No. 2).
3. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 91, No. 17).
4. Editorial correction of subsection (d) (Register 91, No. 31).
5. Editorial correction of printing error (Register 91, No. 43).
6. Editorial correction instituting inadvertently omitted amendment. Submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 93, No. 20).
7. Editorial correction of printing errors (Register 93, No. 45).
8. Amendment of subsection (d) filed 8–1–94. Submitted to OAL for printing only (Register 94, No. 31).
9. Amendment of subsections (b), (c), and (d) filed 12–23–94. Submitted to OAL for printing only (Register 95, No. 1).
10. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 95, No. 52).
11. Amendment filed 1–30–97; operative 1–30–97. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 97, No. 5).
12. Amendment of subsections (b), (c) and (d) filed 2–13–98; operative 2–13–98. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 98, No. 7).

[The next page is 201.]

# B

# HEALTH AND SAFETY CODE SECTION 25249.5-25249.13

25249.5. Prohibition On Contaminating Drinking Water With Chemicals Known to Cause Cancer or Reproductive Toxicity. No person in the course of doing business shall knowingly discharge or release a chemical known to the state to cause cancer or reproductive toxicity into water or onto or into land where such chemical passes or probably will pass into any source of drinking water, notwithstanding any other provision or authorization of law except as provided in Section 25249.9.

25249.6. Required Warning Before Exposure To Chemicals Known to Cause Cancer Or Reproductive Toxicity. No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual, except as provided in Section 25249.10.

25249.7. (a) Any person that violates or threatens to violate Section 25249.5 or 25249.6 may be enjoined in any court of competent jurisdiction.

(b) Any person who has violated Section 25249.5 or 25249.6 shall be liable for a civil penalty not to exceed two thousand five hundred dollars ($2,500) per day for each violation in addition to any other penalty established by law. That civil penalty may be assessed and recovered in a civil action brought in any court of competent jurisdiction.

(c) Actions pursuant to this section may be brought by the Attorney General in the name of the people of the State of California or by any district attorney or by any city attorney of a city having a population in excess of 750,000 or with the consent of the district attorney by a city prosecutor in any city or city and county having a full-time city prosecutor, or as provided in subdivision (d).

(d) Actions pursuant to this section may be brought by any person in the public interest if both of the following requirements are met:

(1) The private action is commenced more than 60 days from the date that the person has given notice of an alleged violation of Section 25249.5 or 25249.6 which is the subject of the private action to the Attorney General and the district attorney, and any city attorney or prosecutor in whose jurisdiction the violation is alleged to have occurred, and to the alleged violator.

(2) Neither the Attorney General nor any district attorney nor any city attorney or prosecutor has commenced and is diligently prosecuting an action against the violation.

(e) Any person bringing an action in the public interest pursuant to subdivision (d) shall notify the Attorney General that such an action has been filed.

(f) (1) Any person bringing an action in the public interest pursuant to subdivision (d) shall, after the action is either subject to a settlement, with or without court approval, or a judgment, submit to the Attorney General a reporting form that includes the results of that settlement or judgment, and the final disposition of the case, even if dismissed. At the time of the filing of any judgment pursuant to an action brought in the public interest pursuant to subdivision (d), the plaintiff shall file an affidavit verifying that the report required by this subdivision has been

accurately completed and submitted to the Attorney General.
(2) Any person bringing an action in the public interest pursuant to subdivision (d) shall, after the action is either subject to a settlement, with or without court approval, or to a judgment, submit to the Attorney General a report that includes information on any corrective action being taken as a part of the settlement or resolution of the action.
(3) The Attorney General shall develop a reporting form that specifies the information that shall be reported, including, but not limited to, for purposes of subdivision (e), the date the action was filed, the nature of the relief sought, and for purposes of this subdivision, the amount of the settlement or civil penalty assessed, other financial terms of the settlement, and any other information the Attorney General deems appropriate.
(g) The Attorney General shall maintain a record of the information submitted pursuant to subdivisions (e) and (f) and shall make this information available to the public.

25249.8. List Of Chemicals Known to Cause Cancer Or Reproductive Toxicity.
(a) On or before March 1, 1987, the Governor shall cause to be published a list of those chemicals known to the state to cause cancer or reproductive toxicity within the meaning of this chapter, and he shall cause such list to be revised and republished in light of additional knowledge at least once per year thereafter. Such list shall include at a minimum those substances identified by reference in Labor Code Section 6382(b)(1) and those substances identified additionally by reference in Labor Code Section 6382(d).
(b) A chemical is known to the state to cause cancer or reproductive toxicity within the meaning of this chapter if in the opinion of the state's qualified experts it has been clearly shown through scientifically valid testing according to generally accepted principles to cause cancer or reproductive toxicity, or if a body considered to be authoritative by such experts has formally identified it as causing cancer or reproductive toxicity, or if an agency of the state or federal government has formally required it to be labeled or identified as causing cancer or reproductive toxicity.

(c) On or before January 1, 1989, and at least once per year thereafter, the Governor shall cause to be published a separate list of those chemicals that at the time of publication are required by state or federal law to have been tested for potential to cause cancer or reproductive toxicity but that the state's qualified experts have not found to have been adequately tested as required.
(d) The Governor shall identify and consult with the state's qualified experts as necessary to carry out his duties under this section.
(e) In carrying out the duties of the Governor under this section, the Governor and his designates shall not be considered to be adopting or amending a regulation within the meaning of the Administrative Procedure Act as defined in Government Code Section 11370.

25249.9. Exemptions from Discharge Prohibition.
(a) Section 25249.5 shall not apply to any discharge or release that takes place less than twenty months subsequent to the listing of the chemical in question on the list required to be published under subdivision (a) of Section 25249.8.
(b) Section 25249.5 shall not apply to any discharge or release that meets both of the following criteria: (1) The discharge or release will not cause any significant amount of the discharged or released chemical to enter any source of drinking water. (2) The discharge or release is in conformity with all other laws and with every applicable regulation, permit,

requirement, and order. In any action brought to enforce Section 25249.5, the burden of showing that a discharge or release meets the criteria of this subdivision shall be on the defendant.

25249.10. Exemptions from Warning Requirement.

Section 25249.6 shall not apply to any of the following:

(a) An exposure for which federal law governs warning in a manner that preempts state authority.

(b) An exposure that takes place less than twelve months subsequent to the listing of the chemical in question on the list required to be published under subdivision (a) of Section 25249.8.

(c) An exposure for which the person responsible can show that the exposure poses no significant risk assuming lifetime exposure at the level in question for substances known to the state to cause cancer, and that the exposure will have no observable effect assuming exposure at one thousand (1000) times the level in question for substances 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 pursuant to subdivision (a) of Section 25249.8. In any action brought to enforce Section 25249.6, the burden of showing that an exposure meets the criteria of this subdivision shall be on the defendant.

25249.11. Definitions.

For purposes of this chapter:

(a) "Person" means an individual, trust, firm, joint stock company, corporation, company, partnership, limited liability company, and association.

(b) "Person in the course of doing business" does not include any person employing fewer than 10 employees in his or her business; 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; or any entity in its operation of a public water system as defined in Section 116275.

(c) "Significant amount" means any detectable amount except an amount which would meet the exemption test in subdivision (c) of Section 25249.10 if an individual were exposed to such an amount in drinking water.

(d) "Source of drinking water" means either a present source of drinking water or water which is identified or designated in a water quality control plan adopted by a regional board as being suitable for domestic or municipal uses.

(e) "Threaten to violate" means to create a condition in which there is a substantial probability that a violation will occur.

(f) "Warning" within the meaning of Section 25249.6 need not be provided separately to each exposed individual and may be provided by general methods such as labels on consumer products, inclusion of notices in mailings to water customers, posting of notices, placing notices in public news media, and the like, provided that the warning accomplished is clear and reasonable. In order to minimize the burden on retail sellers of consumer products including foods, regulations implementing Section 25249.6 shall to the extent practicable place the obligation to provide any warning materials such as labels on the producer or packager rather than on the retail seller, except where the retail seller itself is responsible for introducing a chemical known to the state to cause cancer or reproductive toxicity into the consumer product in question.

25249.12. Implementation. The Governor shall designate a lead agency and such other agencies as may be required to implement the provisions of this chapter including this section. Each agency so

designated may adopt and modify regulations, standards, and permits as necessary to conform with and implement the provisions of this chapter and to further its purposes.

25249.13. Preservation Of Existing Rights, Obligations, and Penalties. Nothing in this chapter shall alter or diminish any legal obligation otherwise required in common law or by statute or regulation, and nothing in this chapter shall create or enlarge any defense in any action to enforce such legal obligation. Penalties and sanctions imposed under this chapter shall be in addition to any penalties or sanctions otherwise prescribed by law.

**25192.** (a) All civil and criminal penalties collected pursuant to this chapter or Chapter 6.6 (commencing with Section 25249.5) shall be apportioned in the following manner:

(1) Fifty percent shall be deposited in the Hazardous Substances Account in the General Fund.

(2) Twenty-five percent shall be paid to the office of the city attorney, city prosecutor, district attorney, or Attorney General, whichever office brought the action, or in the case of an action brought by a person under subdivision (d) of Section 25249.7 to that person.

(3) Twenty-five percent shall be paid to the department and used to fund the activity of the CUPA, the local health officer, or other local public officer or agency authorized to enforce the provisions of this chapter pursuant to Section 25180, whichever entity investigated the matter that led to the bringing of the action. If investigation by the local police department or sheriff's office or California Highway Patrol led to the bringing of the action, the CUPA, the local health officer, or the authorized officer or agency, shall pay a total of 40 percent of its portion under this subdivision to that investigating agency or agencies to be used for the same purpose. If more than one agency is eligible for payment under this paragraph, division of payment among the eligible agencies shall be in the discretion of the CUPA, the local health officer, or the authorized officer or agency.

(b) If a reward is paid to a person pursuant to Section 25191.7, the amount of the reward shall be deducted from the amount of the civil penalty before the amount is apportioned pursuant to subdivision (a).

C

STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT
SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986

# * CHEMICALS KNOWN TO THE STATE TO CAUSE CANCER OR REPRODUCTIVE TOXICITY
JUNE 22, 2001

The Safe Drinking Water and Toxic Enforcement Act of 1986 requires that the Governor revise and republish at least once per year the list of chemicals known to the State to cause cancer or reproductive toxicity. The identification number indicated in the following list is the Chemical Abstracts Service (CAS) Registry Number. No CAS number is given when several substances are presented as a single listing. The date refers to the initial appearance of the chemical on the list. For easy reference, chemicals which are shown underlined are newly added. Chemicals which are shown with a strikeout were placed on the list with the date noted, and have subsequently been removed.

## CHEMICALS KNOWN TO THE STATE TO CAUSE CANCER

| Chemical | CAS Number | Date |
|---|---|---|
| A-alpha-C (2-Amino-9H-pyrido[2,3-b]indole) | 26148685 | January 1, 1990 |
| Acetaldehyde | 75070 | April 1, 1988 |
| Acetamide | 60355 | January 1, 1990 |
| Acetochlor | 34256821 | January 1, 1989 |
| 2-Acetylaminofluorene | 53963 | July 1, 1987 |
| Acifluorfen | 62476599 | January 1, 1990 |
| Acrylamide | 79061 | January 1, 1990 |
| Acrylonitrile | 107131 | July 1, 1987 |
| Actinomycin D | 50760 | October 1, 1989 |
| Adriamycin (Doxorubicin hydrochloride) | 23214928 | July 1, 1987 |
| AF-2;[2-(2-furyl)-3-(5-nitro-2-furyl)]acrylamide | 3688537 | July 1, 1987 |
| Aflatoxins | --- | January 1, 1988 |
| Alachlor | 15972608 | January 1, 1989 |
| Alcoholic beverages, when associated with alcohol abuse | --- | July 1, 1988 |
| Aldrin | 309002 | July 1, 1988 |
| ~~Allyl chloride~~ Delisted October 29, 1999 | ~~107051~~ | ~~January 1, 1990~~ |
| 2-Aminoanthraquinone | 117793 | October 1, 1989 |
| p-Aminoazobenzene | 60093 | January 1, 1990 |
| ortho-Aminoazotoluene | 97563 | July 1, 1987 |
| 4-Aminobiphenyl (4-aminodiphenyl) | 92671 | February 27, 1987 |
| 1-Amino-2,4-dibromoanthraquinone | 81492 | August 26, 1997 |
| 3-Amino-9-ethylcarbazole hydrochloride | 6109973 | July 1, 1989 |
| 2-Aminofluorene | 153786 | January 29, 1999 |
| 1-Amino-2-methylanthraquinone | 82280 | October 1, 1989 |
| 2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole | 712685 | July 1, 1987 |
| 4-Amino-2-nitrophenol | 119346 | January 29, 1999 |
| Amitrole | 61825 | July 1, 1987 |
| Analgesic mixtures containing phenacetin | --- | February 27, 1987 |
| Aniline | 62533 | January 1, 1990 |
| Aniline hydrochloride | 142041 | May 15, 1998 |
| ortho-Anisidine | 90040 | July 1, 1987 |
| ortho-Anisidine hydrochloride | 134292 | July 1, 1987 |
| Antimony oxide (Antimony trioxide) | 1309644 | October 1, 1990 |
| Aramite | 140578 | July 1, 1987 |

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|---|---|---|
| Arsenic (inorganic arsenic compounds) | --- | February 27, 1987 |
| Asbestos | 1332214 | February 27, 1987 |
| Auramine | 492808 | July 1, 1987 |
| Azacitidine | 320672 | January 1, 1992 |
| Azaserine | 115026 | July 1, 1987 |
| Azathioprine | 446866 | February 27, 1987 |
| Azobenzene | 103333 | January 1, 1990 |
| | | |
| Benz[a]anthracene | 56553 | July 1, 1987 |
| Benzene | 71432 | February 27, 1987 |
| Benzidine [and its salts] | 92875 | February 27, 1987 |
| Benzidine-based dyes | --- | October 1, 1992 |
| Benzo[b]fluoranthene | 205992 | July 1, 1987 |
| Benzo[j]fluoranthene | 205823 | July 1, 1987 |
| Benzo[k]fluoranthene | 207089 | July 1, 1987 |
| Benzofuran | 271896 | October 1, 1990 |
| Benzo[a]pyrene | 50328 | July 1, 1987 |
| Benzotrichloride | 98077 | July 1, 1987 |
| Benzyl chloride | 100447 | January 1, 1990 |
| Benzyl violet 4B | 1694093 | July 1, 1987 |
| Beryllium and beryllium compounds | --- | October 1, 1987 |
| Betel quid with tobacco | --- | January 1, 1990 |
| 2,2-Bis(bromomethyl)-1,3-propanediol | 3296900 | May 1, 1996 |
| Bis(2-chloroethyl)ether | 111444 | April 1, 1988 |
| N,N-Bis(2-chloroethyl)-2-naphthylamine (Chlornapazine) | 494031 | February 27, 1987 |
| Bischloroethyl nitrosourea (BCNU) (Carmustine) | 154938 | July 1, 1987 |
| Bis(chloromethyl)ether | 542881 | February 27, 1987 |
| Bis(2-chloro-1-methylethyl)ether, technical grade | --- | October 29, 1999 |
| Bitumens, extracts of steam-refined and air refined | --- | January 1, 1990 |
| Bracken fern | --- | January 1, 1990 |
| Bromodichloromethane | 75274 | January 1, 1990 |
| Bromoethane | 74964 | December 22, 2000 |
| Bromoform | 75252 | April 1, 1991 |
| 1,3-Butadiene | 106990 | April 1, 1988 |
| 1,4-Butanediol dimethanesulfonate (Busulfan) | 55981 | February 27, 1987 |
| Butylated hydroxyanisole | 25013165 | January 1, 1990 |
| beta-Butyrolactone | 3068880 | July 1, 1987 |
| | | |
| Cacodylic acid | 75605 | May 1, 1996 |
| Cadmium and cadmium compounds | --- | October 1, 1987 |
| Caffeic acid | 331395 | October 1, 1994 |
| Captafol | 2425061 | October 1, 1988 |
| Captan | 133062 | January 1, 1990 |
| Carbazole | 86748 | May 1, 1996 |
| Carbon tetrachloride | 56235 | October 1, 1987 |
| Carbon-black extracts | --- | January 1, 1990 |
| Ceramic fibers (airborne particles of respirable size) | --- | July 1, 1990 |
| Certain combined chemotherapy for lymphomas | --- | February 27, 1987 |
| Chlorambucil | 305033 | February 27, 1987 |
| Chloramphenicol | 56757 | October 1, 1989 |
| Chlordane | 57749 | July 1, 1988 |
| Chlordecone (Kepone) | 143500 | January 1, 1988 |
| Chlordimeform | 6164983 | January 1, 1989 |

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|---|---|---|
| Chlorendic acid | 115286 | July 1, 1989 |
| Chlorinated paraffins (Average chain length, C12; approximately 60 percent chlorine by weight) | 108171262 | July 1, 1989 |
| p-Chloroaniline | 106478 | October 1, 1994 |
| p-Chloroaniline hydrochloride | 20265967 | May 15, 1998 |
| ~~Chlorodibromomethane~~ Delisted October 29, 1999 | ~~124481~~ | ~~January 1, 1990~~ |
| Chloroethane (Ethyl chloride) | 75003 | July 1, 1990 |
| 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU) (Lomustine) | 13010474 | January 1, 1988 |
| 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (Methyl-CCNU) | 13909096 | October 1, 1988 |
| Chloroform | 67663 | October 1, 1987 |
| Chloromethyl methyl ether (technical grade) | 107302 | February 27, 1987 |
| 3-Chloro-2-methylpropene | 563473 | July 1, 1989 |
| 1-Chloro-4-nitrobenzene | 100005 | October 29, 1999 |
| 4-Chloro-ortho-phenylenediamine | 95830 | January 1, 1988 |
| p-Chloro-o-toluidine | 95692 | January 1, 1990 |
| p-Chloro-*o*-toluidine, strong acid salts of | --- | May 15, 1998 |
| 5-Chloro-o-toluidine and its strong acid salts | --- | October 24, 1997 |
| Chloroprene | 126998 | June 2, 2000 |
| Chlorothalonil | 1897456 | January 1, 1989 |
| Chlorotrianisene | 569573 | September 1, 1996 |
| Chlorozotocin | 54749905 | January 1, 1992 |
| Chromium (hexavalent compounds) | --- | February 27, 1987 |
| Chrysene | 218019 | January 1, 1990 |
| C.I. Acid Red 114 | 6459945 | July 1, 1992 |
| C.I. Basic Red 9 monohydrochloride | 569619 | July 1, 1989 |
| C.I. Direct Blue 15 | 2429745 | August 26, 1997 |
| C.I. Direct Blue 218 | 28407376 | August 26, 1997 |
| C.I. Solvent Yellow 14 | 842079 | May 15, 1998 |
| Ciclosporin (Cyclosporin A; Cyclosporine) | 59865133<br>79217600 | January 1, 1992 |
| Cidofovir | 113852372 | January 29, 1999 |
| Cinnamyl anthranilate | 87296 | July 1, 1989 |
| Cisplatin | 15663271 | October 1, 1988 |
| Citrus Red No. 2 | 6358538 | October 1, 1989 |
| Clofibrate | 637070 | September 1, 1996 |
| Cobalt metal powder | 7440484 | July 1, 1992 |
| Cobalt [II] oxide | 1307966 | July 1, 1992 |
| Cobalt sulfate heptahydrate | 10026241 | June 2, 2000 |
| Coke oven emissions | --- | February 27, 1987 |
| Conjugated estrogens | --- | February 27, 1987 |
| Creosotes | --- | October 1, 1988 |
| para-Cresidine | 120718 | January 1, 1988 |
| Cupferron | 135206 | January 1, 1988 |
| Cycasin | 14901087 | January 1, 1988 |
| Cyclophosphamide (anhydrous) | 50180 | February 27, 1987 |
| Cyclophosphamide (hydrated) | 6055192 | February 27, 1987 |
| Cytembena | 21739913 | May 15, 1998 |
| D&C Orange No. 17 | 3468631 | July 1, 1990 |
| D&C Red No. 8 | 2092560 | October 1, 1990 |
| D&C Red No. 9 | 5160021 | July 1, 1990 |
| D&C Red No. 19 | 81889 | July 1, 1990 |

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| Dacarbazine | 4342034 | January 1, 1988 |
| Daminozide | 1596845 | January 1, 1990 |
| Dantron (Chrysazin; 1,8-Dihydroxyanthraquinone) | 117102 | January 1, 1992 |
| Daunomycin | 20830813 | January 1, 1988 |
| DDD (Dichlorodiphenyldichloroethane) | 72548 | January 1, 1989 |
| DDE (Dichlorodiphenyldichloroethylene) | 72559 | January 1, 1989 |
| DDT (Dichlorodiphenyltrichloroethane) | 50293 | October 1, 1987 |
| DDVP (Dichlorvos) | 62737 | January 1, 1989 |
| N,N'-Diacetylbenzidine | 613354 | October 1, 1989 |
| 2,4-Diaminoanisole | 615054 | October 1, 1990 |
| 2,4-Diaminoanisole sulfate | 39156417 | January 1, 1988 |
| 4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline) | 101804 | January 1, 1988 |
| 2,4-Diaminotoluene | 95807 | January 1, 1988 |
| Diaminotoluene (mixed) | --- | January 1, 1990 |
| Dibenz[a,h]acridine | 226368 | January 1, 1988 |
| Dibenz[a,j]acridine | 224420 | January 1, 1988 |
| Dibenz[a,h]anthracene | 53703 | January 1, 1988 |
| 7H-Dibenzo[c,g]carbazole | 194592 | January 1, 1988 |
| Dibenzo[a,e]pyrene | 192654 | January 1, 1988 |
| Dibenzo[a,h]pyrene | 189640 | January 1, 1988 |
| Dibenzo[a,i]pyrene | 189559 | January 1, 1988 |
| Dibenzo[a,l]pyrene | 191300 | January 1, 1988 |
| 1,2-Dibromo-3-chloropropane (DBCP) | 96128 | July 1, 1987 |
| 2,3-Dibromo-1-propanol | 96139 | October 1, 1994 |
| Dichloroacetic acid | 79436 | May 1, 1996 |
| p-Dichlorobenzene | 106467 | January 1, 1989 |
| 3,3'-Dichlorobenzidine | 91941 | October 1, 1987 |
| 3,3'-Dichlorobenzidine dihydrochloride | 612839 | May 15, 1998 |
| 1,4-Dichloro-2-butene | 764410 | January 1, 1990 |
| 3,3'-Dichloro-4,4'-diaminodiphenyl ether | 28434868 | January 1, 1988 |
| 1,1-Dichloroethane | 75343 | January 1, 1990 |
| Dichloromethane (Methylene chloride) | 75092 | April 1, 1988 |
| 1,2-Dichloropropane | 78875 | January 1, 1990 |
| 1,3-Dichloropropene | 542756 | January 1, 1989 |
| Dieldrin | 60571 | July 1, 1988 |
| Dienestrol | 84173 | January 1, 1990 |
| Diepoxybutane | 1464535 | January 1, 1988 |
| Diesel engine exhaust | --- | October 1, 1990 |
| Di(2-ethylhexyl)phthalate | 117817 | January 1, 1988 |
| 1,2-Diethylhydrazine | 1615801 | January 1, 1988 |
| Diethyl sulfate | 64675 | January 1, 1988 |
| Diethylstilbestrol (DES) | 56531 | February 27, 1987 |
| Diglycidyl resorcinol ether (DGRE) | 101906 | July 1, 1989 |
| Dihydrosafrole | 94586 | January 1, 1988 |
| Diisopropyl sulfate | 2973106 | April 1, 1993 |
| 3,3'-Dimethoxybenzidine (ortho-Dianisidine) | 119904 | January 1, 1988 |
| 3,3'-Dimethoxybenzidine dihydrochloride (ortho-Dianisidine dihydrochloride) | 20325400 | October 1, 1990 |
| Dimethyl sulfate | 77781 | January 1, 1988 |
| 4-Dimethylaminoazobenzene | 60117 | January 1, 1988 |
| trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole | 55738540 | January 1, 1988 |
| 7,12-Dimethylbenz(a)anthracene | 57976 | January 1, 1990 |
| 3,3'-Dimethylbenzidine (ortho-Tolidine) | 119937 | January 1, 1988 |

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| 3,3'-Dimethylbenzidine dihydrochloride | 612828 | April 1, 1992 |
| Dimethylcarbamoyl chloride | 79447 | January 1, 1988 |
| 1,1-Dimethylhydrazine (UDMH) | 57147 | October 1, 1989 |
| 1,2-Dimethylhydrazine | 540738 | January 1, 1988 |
| Dimethylvinylchloride | 513371 | July 1, 1989 |
| 3,7-Dinitrofluoranthene | 105735715 | August 26, 1997 |
| 3,9-Dinitrofluoranthene | 22506532 | August 26, 1997 |
| 1,6-Dinitropyrene | 42397648 | October 1, 1990 |
| 1,8-Dinitropyrene | 42397659 | October 1, 1990 |
| Dinitrotoluene mixture, 2,4-/2,6- | --- | May 1, 1996 |
| 2,4-Dinitrotoluene | 121142 | July 1, 1988 |
| 2,6-Dinitrotoluene | 606202 | July 1, 1995 |
| Di-n-propyl isocinchomeronate (MGK Repellent 326) | 136458 | May 1, 1996 |
| 1,4-Dioxane | 123911 | January 1, 1988 |
| Diphenylhydantoin (Phenytoin) | 57410 | January 1, 1988 |
| Diphenylhydantoin (Phenytoin), sodium salt | 630933 | January 1, 1988 |
| Direct Black 38 (technical grade) | 1937377 | January 1, 1988 |
| Direct Blue 6 (technical grade) | 2602462 | January 1, 1988 |
| Direct Brown 95 (technical grade) | 16071866 | October 1, 1988 |
| Disperse Blue 1 | 2475458 | October 1, 1990 |
| | | |
| Epichlorohydrin | 106898 | October 1, 1987 |
| Erionite | 12510428 | October 1, 1988 |
| Estradiol 17B | 50282 | January 1, 1988 |
| Estragole | 140670 | October 29, 1999 |
| Estrone | 53167 | January 1, 1988 |
| Estropipate | 7280377 | August 26, 1997 |
| Ethinylestradiol | 57636 | January 1, 1988 |
| Ethoprop | 13194484 | February 27, 2001 |
| Ethyl acrylate | 140885 | July 1, 1989 |
| Ethyl methanesulfonate | 62500 | January 1, 1988 |
| Ethyl-4,4'-dichlorobenzilate | 510156 | January 1, 1990 |
| Ethylene dibromide | 106934 | July 1, 1987 |
| Ethylene dichloride (1,2-Dichloroethane) | 107062 | October 1, 1987 |
| Ethylene oxide | 75218 | July 1, 1987 |
| Ethylene thiourea | 96457 | January 1, 1988 |
| Ethyleneimine | 151564 | January 1, 1988 |
| | | |
| Fenoxycarb | 72490018 | June 2, 2000 |
| Folpet | 133073 | January 1, 1989 |
| Formaldehyde (gas) | 50000 | January 1, 1988 |
| 2-(2-Formylhydrazino)-4-(5-nitro-2-furyl)thiazole | 3570750 | January 1, 1988 |
| Furan | 110009 | October 1, 1993 |
| Furazolidone | 67458 | January 1, 1990 |
| Furmecyclox | 60568050 | January 1, 1990 |
| Fusarin C | 79748815 | July 1, 1995 |
| | | |
| Ganciclovir sodium | 82410320 | August 26, 1997 |
| Gasoline engine exhaust (condensates/extracts) | --- | October 1, 1990 |
| Gemfibrozil | 25812300 | December 22, 2000 |
| Glasswool fibers (airborne particles of respirable size) | --- | July 1, 1990 |
| Glu-P-1 (2-Amino-6-methyldipyrido[1,2-a:3',2'-d]imidazole) | 67730114 | January 1, 1990 |
| Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'-d]imidazole) | 67730103 | January 1, 1990 |

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|---|---|---|
| Glycidaldehyde | 765344 | January 1, 1988 |
| Glycidol | 556525 | July 1, 1990 |
| Griseofulvin | 126078 | January 1, 1990 |
| Gyromitrin (Acetaldehyde methylformylhydrazone) | 16568028 | January 1, 1988 |
| | | |
| HC Blue 1 | 2784943 | July 1, 1989 |
| Heptachlor | 76448 | July 1, 1988 |
| Heptachlor epoxide | 1024573 | July 1, 1988 |
| Hexachlorobenzene | 118741 | October 1, 1987 |
| Hexachlorocyclohexane (technical grade) | --- | October 1, 1987 |
| Hexachlorodibenzodioxin | 34465468 | April 1, 1988 |
| Hexachloroethane | 67721 | July 1, 1990 |
| Hexamethylphosphoramide | 680319 | January 1, 1988 |
| Hydrazine | 302012 | January 1, 1988 |
| Hydrazine sulfate | 10034932 | January 1, 1988 |
| Hydrazobenzene (1,2-Diphenylhydrazine) | 122667 | January 1, 1988 |
| | | |
| Indeno [1,2,3-cd]pyrene | 193395 | January 1, 1988 |
| Indium phosphide | 22398807 | February 27, 2001 |
| IQ (2-Amino-3-methylimidazo[4,5-f]quinoline) | 76180966 | April 1, 1990 |
| Iprodione | 36734197 | May 1, 1996 |
| Iron dextran complex | 9004664 | January 1, 1988 |
| Isobutyl nitrite | 542563 | May 1, 1996 |
| Isoprene | 78795 | May 1, 1996 |
| Isosafrole | 120581 | October 1, 1989 |
| Isoxaflutole | 141112290 | December 22, 2000 |
| | | |
| Lactofen | 77501634 | January 1, 1989 |
| Lasiocarpine | 303344 | April 1, 1988 |
| Lead acetate | 301042 | January 1, 1988 |
| Lead and lead compounds | --- | October 1, 1992 |
| Lead phosphate | 7446277 | April 1, 1988 |
| Lead subacetate | 1335326 | October 1, 1989 |
| Lindane and other hexachlorocyclohexane isomers | --- | October 1, 1989 |
| Lynestrenol | 52766 | February 27, 2001 |
| | | |
| Mancozeb | 8018017 | January 1, 1990 |
| Maneb | 12427382 | January 1, 1990 |
| Me-A-alpha-C (2-Amino-3-methyl-9H-pyrido[2,3-b]indole) | 68006837 | January 1, 1990 |
| Medroxyprogesterone acetate | 71589 | January 1, 1990 |
| MeIQ(2-Amino-3,4-dimethylimidazo[4,5-f]quinoline) | 77094112 | October 1, 1994 |
| MeIQx(2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline) | 77500040 | October 1, 1994 |
| Melphalan | 148823 | February 27, 1987 |
| Merphalan | 531760 | April 1, 1988 |
| Mestranol | 72333 | April 1, 1988 |
| Metham sodium | 137428 | November 6, 1998 |
| 8-Methoxypsoralen with ultraviolet A therapy | 298817 | February 27, 1987 |
| 5-Methoxypsoralen with ultraviolet A therapy | 484208 | October 1, 1988 |
| 2-Methylaziridine (Propyleneimine) | 75558 | January 1, 1988 |
| Methylazoxymethanol | 590965 | April 1, 1988 |
| Methylazoxymethanol acetate | 592621 | April 1, 1988 |
| Methyl carbamate | 598550 | May 15, 1998 |
| 3-Methylcholanthrene | 56495 | January 1, 1990 |
| 5-Methylchrysene | 3697243 | April 1, 1988 |

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| 4,4'-Methylene bis(2-chloroaniline) | 101144 | July 1, 1987 |
| 4,4'-Methylene bis(N,N-dimethyl)benzenamine | 101611 | October 1, 1989 |
| 4,4'-Methylene bis(2-methylaniline) | 838880 | April 1, 1988 |
| 4,4'-Methylenedianiline | 101779 | January 1, 1988 |
| 4,4'-Methylenedianiline dihydrochloride | 13552448 | January 1, 1988 |
| Methylhydrazine and its salts | --- | July 1, 1992 |
| Methyl iodide | 74884 | April 1, 1988 |
| Methylmercury compounds | --- | May 1, 1996 |
| Methyl methanesulfonate | 66273 | April 1, 1988 |
| 2-Methyl-1-nitroanthraquinone (of uncertain purity) | 129157 | April 1, 1988 |
| N-Methyl-N'-nitro-N-nitrosoguanidine | 70257 | April 1, 1988 |
| N-Methylolacrylamide | 924425 | July 1, 1990 |
| Methylthiouracil | 56042 | October 1, 1989 |
| Metiram | 9006422 | January 1, 1990 |
| Metronidazole | 443481 | January 1, 1988 |
| Michler's ketone | 90948 | January 1, 1988 |
| Mirex | 2385855 | January 1, 1988 |
| Mitomycin C | 50077 | April 1, 1988 |
| Monocrotaline | 315220 | April 1, 1988 |
| 5-(Morpholinomethyl)-3-[(5-nitro-furfurylidene)-amino]-2-oxazolidinone | 139913 | April 1, 1988 |
| Mustard Gas | 505602 | February 27, 1987 |
| MX (3-chloro-4-dichloromethyl-5-hydroxy-2(5H)-furanone) | 77439760 | December 22, 2000 |
| | | |
| Nafenopin | 3771195 | April 1, 1988 |
| Nalidixic acid | 389082 | May 15, 1998 |
| 1-Naphthylamine | 134327 | October 1, 1989 |
| 2-Naphthylamine | 91598 | February 27, 1987 |
| Nickel and certain nickel compounds | --- | October 1, 1989 |
| Nickel carbonyl | 13463393 | October 1, 1987 |
| Nickel refinery dust from the pyrometallurgical process | --- | October 1, 1987 |
| Nickel subsulfide | 12035722 | October 1, 1987 |
| Niridazole | 61574 | April 1, 1988 |
| Nitrilotriacetic acid | 139139 | January 1, 1988 |
| Nitrilotriacetic acid, trisodium salt monohydrate | 18662538 | April 1, 1989 |
| 5-Nitroacenaphthene | 602879 | April 1, 1988 |
| 5-Nitro-o-anisidine | 99592 | October 1, 1989 |
| o-Nitroanisole | 91236 | October 1, 1992 |
| Nitrobenzene | 98953 | August 26, 1997 |
| 4-Nitrobiphenyl | 92933 | April 1, 1988 |
| 6-Nitrochrysene | 7496028 | October 1, 1990 |
| Nitrofen (technical grade) | 1836755 | January 1, 1988 |
| 2-Nitrofluorene | 607578 | October 1, 1990 |
| Nitrofurazone | 59870 | January 1, 1990 |
| 1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone | 555840 | April 1, 1988 |
| N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide | 531828 | April 1, 1988 |
| Nitrogen mustard (Mechlorethamine) | 51752 | January 1, 1988 |
| Nitrogen mustard hydrochloride (Mechlorethamine hydrochloride) | 55867 | April 1, 1988 |
| Nitrogen mustard N-oxide | 126852 | April 1, 1988 |
| Nitrogen mustard N-oxide hydrochloride | 302705 | April 1, 1988 |
| Nitromethane | 75525 | May 1, 1997 |
| 2-Nitropropane | 79469 | January 1, 1988 |
| 1-Nitropyrene | 5522430 | October 1, 1990 |

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| 4-Nitropyrene | 57835924 | October 1, 1990 |
| N-Nitrosodi-n-butylamine | 924163 | October 1, 1987 |
| N-Nitrosodiethanolamine | 1116547 | January 1, 1988 |
| N-Nitrosodiethylamine | 55185 | October 1, 1987 |
| N-Nitrosodimethylamine | 62759 | October 1, 1987 |
| p-Nitrosodiphenylamine | 156105 | January 1, 1988 |
| N-Nitrosodiphenylamine | 86306 | April 1, 1988 |
| N-Nitrosodi-n-propylamine | 621647 | January 1, 1988 |
| N-Nitroso-N-ethylurea | 759739 | October 1, 1987 |
| 3-(N-Nitrosomethylamino)propionitrile | 60153493 | April 1, 1990 |
| 4-(N-Nitrosomethylamino)-1-(3-pyridyl)1-butanone | 64091914 | April 1, 1990 |
| N-Nitrosomethylethylamine | 10595956 | October 1, 1989 |
| N-Nitroso-N-methylurea | 684935 | October 1, 1987 |
| N-Nitroso-N-methylurethane | 615532 | April 1, 1988 |
| N-Nitrosomethylvinylamine | 4549400 | January 1, 1988 |
| N-Nitrosomorpholine | 59892 | January 1, 1988 |
| N-Nitrosonornicotine | 16543558 | January 1, 1988 |
| N-Nitrosopiperidine | 100754 | January 1, 1988 |
| N-Nitrosopyrrolidine | 930552 | October 1, 1987 |
| N-Nitrososarcosine | 13256229 | January 1, 1988 |
| o-Nitrotoluene | 88722 | May 15, 1998 |
| Norethisterone (Norethindrone) | 68224 | October 1, 1989 |
| Norethynodrel | 68235 | February 27, 2001 |
| | | |
| Ochratoxin A | 303479 | July 1, 1990 |
| Oil Orange SS | 2646175 | April 1, 1988 |
| Oral contraceptives, combined | --- | October 1, 1989 |
| Oral contraceptives, sequential | --- | October 1, 1989 |
| Oxadiazon | 19666309 | July 1, 1991 |
| Oxazepam | 604751 | October 1, 1994 |
| Oxymetholone | 434071 | January 1, 1988 |
| Oxythioquinox | 2439012 | August 20, 1999 |
| | | |
| Palygorskite fibers (> 5µm in length) | 12174117 | December 28, 1999 |
| Panfuran S | 794934 | January 1, 1988 |
| Pentachlorophenol | 87865 | January 1, 1990 |
| Phenacetin | 62442 | October 1, 1989 |
| Phenazopyridine | 94780 | January 1, 1988 |
| Phenazopyridine hydrochloride | 136403 | January 1, 1988 |
| Phenesterin | 3546109 | July 1, 1989 |
| Phenobarbital | 50066 | January 1, 1990 |
| Phenolphthalein | 77098 | May 15, 1998 |
| Phenoxybenzamine | 59961 | April 1, 1988 |
| Phenoxybenzamine hydrochloride | 63923 | April 1, 1988 |
| o-Phenylenediamine and its salts | 95545 | May 15, 1998 |
| Phenyl glycidyl ether | 122601 | October 1, 1990 |
| Phenylhydrazine and its salts | --- | July 1, 1992 |
| o-Phenylphenate, sodium | 132274 | January 1, 1990 |
| o-Phenylphenol | 90437 | August 4, 2000 |
| PhiP(2-Amino-1-methyl-6-phenylimidazol[4,5-b]pyridine) | 105650235 | October 1, 1994 |
| Polybrominated biphenyls | --- | January 1, 1988 |
| Polychlorinated biphenyls | --- | October 1, 1989 |
| Polychlorinated biphenyls (containing 60 or more | --- | January 1, 1988 |

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|---|---|---|
| percent chlorine by molecular weight) | | |
| Polychlorinated dibenzo-p-dioxins | --- | October 1, 1992 |
| Polychlorinated dibenzofurans | --- | October 1, 1992 |
| Polygeenan | 53973981 | January 1, 1988 |
| Ponceau MX | 3761533 | April 1, 1988 |
| Ponceau 3R | 3564098 | April 1, 1988 |
| Potassium bromate | 7758012 | January 1, 1990 |
| Primidone | 125337 | August 20, 1999 |
| Procarbazine | 671169 | January 1, 1988 |
| Procarbazine hydrochloride | 366701 | January 1, 1988 |
| Procymidone | 32809168 | October 1, 1994 |
| Progesterone | 57830 | January 1, 1988 |
| Pronamide | 23950585 | May 1, 1996 |
| Propachlor | 1918167 | February 27, 2001 |
| 1,3-Propane sultone | 1120714 | January 1, 1988 |
| Propargite | 2312358 | October 1, 1994 |
| beta-Propiolactone | 57578 | January 1, 1988 |
| Propylene oxide | 75569 | October 1, 1988 |
| Propylthiouracil | 51525 | January 1, 1988 |
| | | |
| Quinoline and its strong acid salts | --- | October 24, 1997 |
| | | |
| Radionuclides | --- | July 1, 1989 |
| Reserpine | 50555 | October 1, 1989 |
| Residual (heavy) fuel oils | --- | October 1, 1990 |
| | | |
| ~~Saccharin~~ Delisted April 6, 2001 | ~~81072~~ | ~~October 1, 1989~~ |
| Saccharin, sodium | 128449 | January 1, 1988 |
| Safrole | 94597 | January 1, 1988 |
| Salicylazosulfapyridine | 599791 | May 15, 1998 |
| Selenium sulfide | 7446346 | October 1, 1989 |
| Shale-oils | 68308349 | April 1, 1990 |
| Silica, crystalline (airborne particles of respirable size) | --- | October 1, 1988 |
| Soots, tars, and mineral oils (untreated and mildly treated oils and used engine oils) | --- | February 27, 1987 |
| Spironolactone | 52017 | May 1, 1997 |
| Stanozolol | 10418038 | May 1, 1997 |
| Sterigmatocystin | 10048132 | April 1, 1988 |
| Streptozotocin (streptozocin) | 18883664 | January 1, 1988 |
| Styrene oxide | 96093 | October 1, 1988 |
| Sulfallate | 95067 | January 1, 1988 |
| | | |
| Talc containing asbestiform fibers | --- | April 1, 1990 |
| Tamoxifen and its salts | 10540291 | September 1, 1996 |
| Terrazole | 2593159 | October 1, 1994 |
| Testosterone and its esters | 58220 | April 1, 1988 |
| 2,3,7,8-Tetrachlorodibenzo-para-dioxin (TCDD) | 1746016 | January 1, 1988 |
| 1,1,2,2-Tetrachloroethane | 79345 | July 1, 1990 |
| Tetrachloroethylene (Perchloroethylene) | 127184 | April 1, 1988 |
| p-a,a,a-Tetrachlorotoluene | 5216251 | January 1, 1990 |
| Tetrafluoroethylene | 116143 | May 1, 1997 |
| Tetranitromethane | 509148 | July 1, 1990 |
| Thioacetamide | 62555 | January 1, 1988 |
| 4,4'-Thiodianiline | 139651 | April 1, 1988 |

| | | |
|---|---|---|
| Thiodicarb | 59669260 | August 20, 1999 |
| Thiourea | 62566 | January 1, 1988 |
| Thorium dioxide | 1314201 | February 27, 1987 |
| Tobacco, oral use of smokeless products | --- | April 1, 1988 |
| Tobacco smoke | --- | April 1, 1988 |
| Toluene diisocyanate | 26471625 | October 1, 1989 |
| ortho-Toluidine | 95534 | January 1, 1988 |
| ortho-Toluidine hydrochloride | 636215 | January 1, 1988 |
| ~~para-Toluidine~~ Delisted October 29, 1999 | ~~106490~~ | ~~January 1, 1990~~ |
| Toxaphene (Polychlorinated camphenes) | 8001352 | January 1, 1988 |
| Treosulfan | 299752 | February 27, 1987 |
| Trichlormethine (Trimustine hydrochloride) | 817094 | January 1, 1992 |
| Trichloroethylene | 79016 | April 1, 1988 |
| 2,4,6-Trichlorophenol | 88062 | January 1, 1988 |
| 1,2,3-Trichloropropane | 96184 | October 1,1992 |
| Trimethyl phosphate | 512561 | May 1, 1996 |
| 2,4,5-Trimethylaniline and its strong acid salts | --- | October 24, 1997 |
| Triphenyltin hydroxide | 76879 | July 1, 1992 |
| Tris(aziridinyl)-para-benzoquinone (Triaziquone) | 68768 | October 1, 1989 |
| Tris(1-aziridinyl)phosphine sulfide (Thiotepa) | 52244 | January 1, 1988 |
| Tris(2-chloroethyl) phosphate | 115968 | April 1, 1992 |
| Tris(2,3-dibromopropyl)phosphate | 126727 | January 1, 1988 |
| Trp-P-1 (Tryptophan-P-1) | 62450060 | April 1, 1988 |
| Trp-P-2 (Tryptophan-P-2) | 62450071 | April 1, 1988 |
| Trypan blue (commercial grade) | 72571 | October 1, 1989 |
| | | |
| Unleaded gasoline (wholly vaporized) | --- | April 1, 1988 |
| Uracil mustard | 66751 | April 1, 1988 |
| Urethane (Ethyl carbamate) | 51796 | January 1, 1988 |
| | | |
| Vinclozolin | 50471448 | August 20, 1999 |
| Vinyl bromide | 593602 | October 1, 1988 |
| Vinyl chloride | 75014 | February 27, 1987 |
| 4-Vinylcyclohexene | 100403 | May 1, 1996 |
| 4-Vinyl-1-cyclohexene diepoxide (Vinyl cyclohexenedioxide) | 106876 | July 1, 1990 |
| Vinyl fluoride | 75025 | May 1, 1997 |
| Vinyl trichloride (1,1,2-Trichloroethane) | 79005 | October 1, 1990 |
| | | |
| 2,6-Xylidine (2,6-Dimethylaniline) | 87627 | January 1, 1991 |
| | | |
| Zileuton | 111406872 | December 22, 2000 |
| ~~Zineb~~ Delisted October 29, 1999 | ~~12122677~~ | ~~January 1, 1990~~ |

CHEMICALS KNOWN TO THE STATE TO CAUSE REPRODUCTIVE TOXICITY

Developmental toxicity

| | | |
|---|---|---|
| Acetazolamide | 59665 | August 20, 1999 |
| Acetohydroxamic acid | 546883 | April 1, 1990 |
| Actinomycin D | 50760 | October 1, 1992 |
| All-trans retinoic acid | 302794 | January 1, 1989 |
| Alprazolam | 28981977 | July 1, 1990 |
| Altretamine | 645056 | August 20, 1999 |

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|---|---|---|
| Amantadine hydrochloride | 665667 | February 27, 2001 |
| Amikacin sulfate | 39831555 | July 1, 1990 |
| Aminoglutethimide | 125848 | July 1, 1990 |
| Aminoglycosides | --- | October 1, 1992 |
| Aminopterin | 54626 | July 1, 1987 |
| Amiodarone hydrochloride | 19774824 | August 26, 1997 |
| Amitraz | 33089611 | March 30, 1999 |
| Amoxapine | 14028445 | May 15, 1998 |
| Angiotensin converting enzyme (ACE) inhibitors | --- | October 1, 1992 |
| Anisindione | 117373 | October 1, 1992 |
| Arsenic (inorganic oxides) | --- | May 1, 1997 |
| Aspirin (NOTE: It is especially important not to use aspirin during the last three months of pregnancy, unless specifically directed to do so by a physician because it may cause problems in the unborn child or complications during delivery.) | 50782 | July 1, 1990 |
| Atenolol | 29122687 | August 26, 1997 |
| Auranofin | 34031328 | January 29, 1999 |
| Azathioprine | 446866 | September 1, 1996 |
| | | |
| Barbiturates | --- | October 1, 1992 |
| Beclomethasone dipropionate | 5534098 | May 15, 1998 |
| Benomyl | 17804352 | July 1, 1991 |
| Benzene | 71432 | December 26, 1997 |
| Benzphetamine hydrochloride | 5411223 | April 1, 1990 |
| Benzodiazepines | --- | October 1, 1992 |
| Bischloroethyl nitrosourea (BCNU) (Carmustine) | 154938 | July 1, 1990 |
| Bromacil lithium salt | 53404196 | May 18, 1999 |
| Bromoxynil | 1689845 | October 1, 1990 |
| Bromoxynil octanoate | 1689992 | May 18, 1999 |
| Butabarbital sodium | 143817 | October 1, 1992 |
| 1,4-Butanediol dimethanesulfonate (Busulfan) | 55981 | January 1, 1989 |
| | | |
| Cadmium | --- | May 1, 1997 |
| Carbamazepine | 298464 | January 29, 1999 |
| Carbon disulfide | 75150 | July 1, 1989 |
| Carbon monoxide | 630080 | July 1, 1989 |
| Carboplatin | 41575944 | July 1, 1990 |
| Chenodiol | 474259 | April 1, 1990 |
| Chinomethionat (Oxythioquinox) | 2439012 | November 6, 1998 |
| Chlorambucil | 305033 | January 1, 1989 |
| Chlorcyclizine hydrochloride | 1620219 | July 1, 1987 |
| Chlordecone (Kepone) | 143500 | January 1, 1989 |
| Chlordiazepoxide | 58253 | January 1, 1992 |
| Chlordiazepoxide hydrochloride | 438415 | January 1, 1992 |
| 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU) (Lomustine) | 13010474 | July 1, 1990 |
| Chlorsulfuron | 64902723 | May 14, 1999 |
| Cidofovir | 113852372 | January 29, 1999 |
| Cladribine | 4291638 | September 1, 1996 |
| Clarithromycin | 81103119 | May 1, 1997 |
| Clobetasol propionate | 25122467 | May 15, 1998 |
| Clomiphene citrate | 50419 | April 1, 1990 |
| Clorazepate dipotassium | 57109907 | October 1, 1992 |

| | | |
|---|---|---|
| Cocaine | 50362 | July 1, 1989 |
| Codeine phosphate | 52288 | May 15, 1998 |
| Colchicine | 64868 | October 1, 1992 |
| Conjugated estrogens | — | April 1, 1990 |
| Cyanazine | 21725462 | April 1, 1990 |
| Cycloate | 1134232 | March 19, 1999 |
| Cycloheximide | 66819 | January 1, 1989 |
| Cyclophosphamide (anhydrous) | 50180 | January 1, 1989 |
| Cyclophosphamide (hydrated) | 6055192 | January 1, 1989 |
| Cyhexatin | 13121705 | January 1, 1989 |
| Cytarabine | 147944 | January 1, 1989 |
| | | |
| Dacarbazine | 4342034 | January 29, 1999 |
| Danazol | 17230885 | April 1, 1990 |
| Daunorubicin hydrochloride | 23541506 | July 1, 1990 |
| ~~2,4-D butyric acid~~ | ~~94826~~ | ~~June 18, 1999~~ |
| o,p'-DDT | 789026 | May 15, 1998 |
| p,p'-DDT | 50293 | May 15, 1998 |
| 2,4-DP (dichloroprop) | 120365 | April 27, 1999 |
| Demeclocycline hydrochloride (internal use) | 64733 | January 1, 1992 |
| Diazepam | 439145 | January 1, 1992 |
| Diazoxide | 364987 | February 27, 2001 |
| Dichlorophene | 97234 | April 27, 1999 |
| Dichlorphenamide | 120978 | February 27, 2001 |
| Diclofop methyl | 51338273 | March 5, 1999 |
| Dicumarol | 66762 | October 1, 1992 |
| Diethylstilbestrol (DES) | 56531 | July 1, 1987 |
| Diflunisal | 22494424 | January 29, 1999 |
| Dihydroergotamine mesylate | 6190392 | May 1, 1997 |
| Diltiazem hydrochloride | 33286225 | February 27, 2001 |
| Dinocap | 39300453 | April 1, 1990 |
| Dinoseb | 88857 | January 1, 1989 |
| Diphenylhydantoin (Phenytoin) | 57410 | July 1, 1987 |
| Disodium cyanodithioimidocarbonate | 138932 | March 30, 1999 |
| Doxorubicin hydrochloride | 23214928 | January 29, 1999 |
| Doxycycline (internal use) | 564250 | July 1, 1990 |
| Doxycycline calcium (internal use) | 94088854 | January 1, 1992 |
| Doxycycline hyclate (internal use) | 24390145 | October 1, 1991 |
| Doxycycline monohydrate (internal use) | 17086281 | October 1, 1991 |
| | | |
| Endrin | 72208 | May 15, 1998 |
| Ergotamine tartrate | 379793 | April 1, 1990 |
| Estropipate | 7280377 | August 26, 1997 |
| Ethionamide | 536334 | August 26, 1997 |
| Ethyl alcohol in alcoholic beverages | — | October 1, 1987 |
| Ethyl dipropylthiocarbamate | 759944 | April 27, 1999 |
| Ethylene dibromide | 106934 | May 15, 1998 |
| Ethylene glycol monoethyl ether | 110805 | January 1, 1989 |
| Ethylene glycol monomethyl ether | 109864 | January 1, 1989 |
| Ethylene glycol monoethyl ether acetate | 111159 | January 1, 1993 |
| Ethylene glycol monomethyl ether acetate | 110496 | January 1, 1993 |
| Ethylene thiourea | 96457 | January 1, 1993 |
| Etodolac | 41340254 | August 20, 1999 |
| Etoposide | 33419420 | July 1, 1990 |

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|---|---|---|
| Etretinate | 54350480 | July 1, 1987 |
| Fenoxaprop ethyl | 66441234 | March 26, 1999 |
| Filgrastim | 121181531 | February 27, 2001 |
| Fluazifop butyl | 69806504 | November 6, 1998 |
| Flunisolide | 3385033 | May 15, 1998 |
| Fluorouracil | 51218 | January 1, 1989 |
| Fluoxymesterone | 76437 | April 1, 1990 |
| Flurazepam hydrochloride | 1172185 | October 1, 1992 |
| Flurbiprofen | 5104494 | August 20, 1999 |
| Flutamide | 13311847 | July 1, 1990 |
| Fluticasone propionate | 80474142 | May 15, 1998 |
| Fluvalinate | 69409945 | November 6, 1998 |
| Ganciclovir sodium | 82410320 | August 26, 1997 |
| Goserelin acetate | 65807025 | August 26, 1997 |
| Halazepam | 23092173 | July 1, 1990 |
| Halobetasol propionate | 66852548 | August 20, 1999 |
| Haloperidol | 52868 | January 29, 1999 |
| Halothane | 151677 | September 1, 1996 |
| Heptachlor | 76448 | August 20, 1999 |
| Hexachlorobenzene | 118741 | January 1, 1989 |
| Histrelin acetate | --- | May 15, 1998 |
| Hydramethylnon | 67485294 | March 5, 1999 |
| Hydroxyurea | 127071 | May 1, 1997 |
| Idarubicin hydrochloride | 57852570 | August 20, 1999 |
| Ifosfamide | 3778732 | July 1, 1990 |
| Iodine-131 | 10043660 | January 1, 1989 |
| Isotretinoin | 4759482 | July 1, 1987 |
| Lead | --- | February 27, 1987 |
| Leuprolide acetate | 74381536 | August 26, 1997 |
| Levodopa | 59927 | January 29, 1999 |
| Linuron | 330552 | March 19, 1999 |
| Lithium carbonate | 554132 | January 1, 1991 |
| Lithium citrate | 919164 | January 1, 1991 |
| Lorazepam | 846491 | July 1, 1990 |
| Lovastatin | 75330755 | October 1, 1992 |
| Mebendazole | 31431397 | August 20, 1999 |
| Medroxyprogesterone acetate | 71589 | April 1, 1990 |
| Megestrol acetate | 595335 | January 1, 1991 |
| Melphalan | 148823 | July 1, 1990 |
| Menotropins | 9002680 | April 1, 1990 |
| Meprobamate | 57534 | January 1, 1992 |
| Mercaptopurine | 6112761 | July 1, 1990 |
| Mercury and mercury compounds | --- | July 1, 1990 |
| Methacycline hydrochloride | 3963959 | January 1, 1991 |
| Metham sodium | 137428 | May 15, 1998 |
| Methazole | 20354261 | December 1, 1999 |
| Methimazole | 60560 | July 1, 1990 |
| Methotrexate | 59052 | January 1, 1989 |

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|---|---|---|
| Methotrexate sodium | 15475566 | April 1, 1990 |
| Methyl bromide as a structural fumigant | 74839 | January 1, 1993 |
| Methyl chloride | 74873 | March 10, 2000 |
| Methyl mercury | --- | July 1, 1987 |
| N-Methylpyrrolidone | 872504 | June 15, 2001 |
| Methyltestosterone | 58184 | April 1, 1990 |
| Metiram | 9006422 | March 30, 1999 |
| Midazolam hydrochloride | 59467968 | July 1, 1990 |
| Minocycline hydrochloride (internal use) | 13614987 | January 1, 1992 |
| Misoprostol | 59122462 | April 1, 1990 |
| Mitoxantrone hydrochloride | 70476823 | July 1, 1990 |
| Myclobutanil | 88671890 | April 16, 1999 |
| | | |
| Nabam | 142596 | March 30, 1999 |
| Nafarelin acetate | 86220420 | April 1, 1990 |
| Neomycin sulfate (internal use) | 1405103 | October 1, 1992 |
| Netilmicin sulfate | 56391572 | July 1, 1990 |
| Nickel carbonyl | 13463393 | September 1, 1996 |
| Nicotine | 54115 | April 1, 1990 |
| Nifedipine | 21829254 | January 29, 1999 |
| Nimodipine | 66085594 | April 24, 2001 |
| Nitrapyrin | 1929824 | March 30, 1999 |
| Nitrogen mustard (Mechlorethamine) | 51752 | January 1, 1989 |
| Nitrogen mustard hydrochloride (Mechlorethamine hydrochloride) | 55867 | July 1, 1990 |
| Norethisterone (Norethindrone) | 68224 | April 1, 1990 |
| Norethisterone acetate (Norethindrone acetate) | 51989 | October 1, 1991 |
| Norethisterone (Norethindrone)/Ethinyl estradiol | 68224/57636 | April 1, 1990 |
| Norethisterone (Norethindrone)/Mestranol | 68224/72333 | April 1, 1990 |
| Norgestrel | 6533002 | April 1, 1990 |
| | | |
| Oxadiazon | 19666309 | May 15, 1998 |
| Oxazepam | 604751 | October 1, 1992 |
| Oxymetholone | 434071 | May 1, 1997 |
| Oxytetracycline (internal use) | 79572 | January 1, 1991 |
| Oxytetracycline hydrochloride (internal use) | 2058460 | October 1, 1991 |
| | | |
| Paclitaxel | 33069624 | August 26, 1997 |
| Paramethadione | 115673 | July 1, 1990 |
| Penicillamine | 52675 | January 1, 1991 |
| Pentobarbital sodium | 57330 | July 1, 1990 |
| Pentostatin | 53910251 | September 1, 1996 |
| Phenacemide | 63989 | July 1, 1990 |
| Phenprocoumon | 435972 | October 1, 1992 |
| Pimozide | 2062784 | August 20, 1999 |
| Pipobroman | 54911 | July 1, 1990 |
| Plicamycin | 18378897 | April 1, 1990 |
| Polybrominated biphenyls | --- | October 1, 1994 |
| Polychlorinated biphenyls | --- | January 1, 1991 |
| Potassium dimethyldithiocarbamate | 128030 | March 30 1999 |
| Pravastatin sodium | 81131706 | March 3, 2000 |
| Prednisolone sodium phosphate | 125020 | August 20, 1999 |
| Procarbazine hydrochloride | 366701 | July 1, 1990 |
| Propargite | 2312358 | June 15, 1999 |

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|---|---|---|
| Propylthiouracil | 51525 | July 1, 1990 |
| Pyrimethamine | 58140 | January 29, 1999 |
| Quazepam | 36735225 | August 26, 1997 |
| Resmethrin | 10453868 | November 6, 1998 |
| Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents. (NOTE: Retinol/retinyl esters are required and essential for maintenance of normal reproductive function. The recommended daily level during pregnancy is 8,000 IU.) | --- | July 1, 1989 |
| Ribavirin | 36791045 | April 1, 1990 |
| Rifampin | 13292461 | February 27, 2001 |
| Secobarbital sodium | 309433 | October 1, 1992 |
| Sermorelin acetate | --- | August 20, 1999 |
| Sodium dimethyldithiocarbamate | 128041 | March 30 1999 |
| Streptomycin sulfate | 3810740 | January 1, 1991 |
| Streptozocin (streptozotocin) | 18883664 | August 20, 1999 |
| Sulindac | 38194502 | January 29, 1999 |
| Tamoxifen citrate | 54965241 | July 1, 1990 |
| Temazepam | 846504 | April 1, 1990 |
| Teniposide | 29767202 | September 1, 1996 |
| Terbacil | 5902512 | May 18, 1999 |
| Testosterone cypionate | 58208 | October 1, 1991 |
| Testosterone enanthate | 315377 | April 1, 1990 |
| 2,3,7,8-Tetrachlorodibenzo-para-dioxin (TCDD) | 1746016 | April 1, 1991 |
| Tetracycline (internal use) | 60548 | October 1, 1991 |
| Tetracyclines (internal use) | --- | October 1, 1992 |
| Tetracycline hydrochloride (internal use) | 64755 | January 1, 1991 |
| Thalidomide | 50351 | July 1, 1987 |
| Thioguanine | 154427 | July 1, 1990 |
| Tobacco smoke (primary) | --- | April 1, 1988 |
| Tobramycin sulfate | 49842071 | July 1, 1990 |
| Toluene | 108883 | January 1, 1991 |
| Triadimefon | 43121433 | March 30, 1999 |
| Triazolam | 28911015 | April 1, 1990 |
| Tributyltin methacrylate | 2155706 | December 1, 1999 |
| Trientine hydrochloride | 38260014 | February 27, 2001 |
| Triforine | 26644462<br>37273840 | June 18, 1999 |
| Trilostane | 13647353 | April 1, 1990 |
| Trimethadione | 127480 | January 1, 1991 |
| Trimetrexate glucuronate | 82952645 | August 26, 1997 |
| Uracil mustard | 66751 | January 1, 1992 |
| Urethane | 51796 | October 1, 1994 |
| Urofollitropin | 26995915 | April 1, 1990 |
| Valproate (Valproic acid) | 99661 | July 1, 1987 |
| Vinblastine sulfate | 143679 | July 1, 1990 |
| Vinclozolin | 50471448 | May 15, 1998 |

| | | |
|---|---|---|
| Vincristine sulfate | 2068782 | July 1, 1990 |
| Warfarin | 81812 | July 1, 1987 |
| Zileuton | 111406872 | December 22, 2000 |
| Female reproductive toxicity | | |
| Aminopterin | 54626 | July 1, 1987 |
| Amiodarone hydrochloride | 19774824 | August 26, 1997 |
| Anabolic steroids | --- | April 1, 1990 |
| Aspirin (NOTE: It is especially important not to use aspirin during the last three months of pregnancy, unless specifically directed to do so by a physician because it may cause problems in the unborn child or complications during delivery.) | 50782 | July 1, 1990 |
| Carbon disulfide | 75150 | July 1, 1989 |
| Chlorsulfuron | 64902723 | May 14, 1999 |
| Cidofovir | 113852372 | January 29, 1999 |
| Clobetasol propionate | 25122467 | May 15, 1998 |
| Cocaine | 50362 | July 1, 1989 |
| Cyclophosphamide (anhydrous) | 50180 | January 1, 1989 |
| Cyclophosphamide (hydrated) | 6055192 | January 1, 1989 |
| o,p'-DDT | 789026 | May 15, 1998 |
| p,p'-DDT | 50293 | May 15, 1998 |
| Diflunisal | 22494424 | January 29, 1999 |
| Dinitrotoluene (technical grade) | --- | August 20, 1999 |
| Ethylene oxide | 75218 | February 27, 1987 |
| Etodolac | 41340254 | August 20, 1999 |
| Flunisolide | 3385033 | May 15, 1998 |
| Flurbiprofen | 5104494 | August 20, 1999 |
| Gemfibrozil | 25812300 | August 20, 1999 |
| Goserelin acetate | 65807025 | August 26, 1997 |
| Haloperidol | 52868 | January 29, 1999 |
| Lead | --- | February 27, 1987 |
| Leuprolide acetate | 74381536 | August 26, 1997 |
| Levonorgestrel implants | 797637 | May 15, 1998 |
| Nifedipine | 21829254 | January 29, 1999 |
| Oxydemeton methyl | 301122 | November 6, 1998 |
| Paclitaxel | 33069624 | August 26, 1997 |
| Pimozide | 2062784 | August 20, 1999 |
| Rifampin | 13292461 | February 27, 2001 |

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|---|---|---|
| Streptozocin (streptozotocin) | 18883664 | August 20, 1999 |
| Sulindac | 38194502 | January 29, 1999 |
| Thiophanate methyl | 23564058 | May 18, 1999 |
| Tobacco smoke (primary) | --- | April 1, 1988 |
| Triadimefon | 43121433 | March 30, 1999 |
| Uracil mustard | 66751 | January 1, 1992 |
| Zileuton | 111406872 | December 22, 2000 |
| Male reproductive toxicity | | |
| Altretamine | 645056 | August 20, 1999 |
| Amiodarone hydrochloride | 19774824 | August 26, 1997 |
| Anabolic steroids | --- | April 1, 1990 |
| Benomyl | 17804352 | July 1, 1991 |
| Benzene | 71432 | December 26, 1997 |
| Cadmium | --- | May 1, 1997 |
| Carbon disulfide | 75150 | July 1, 1989 |
| Chlorsulfuron | 64902723 | May 14, 1999 |
| Cidofovir | 113852372 | January 29, 1999 |
| Colchicine | 64868 | October 1, 1992 |
| Cyclohexanol | 108930 | November 6, 1998 |
| Cyclophosphamide (anhydrous) | 50180 | January 1, 1989 |
| Cyclophosphamide (hydrated) | 6055192 | January 1, 1989 |
| 2,4-D butyric acid | 94826 | June 18, 1999 |
| o,p'-DDT | 789026 | May 15, 1998 |
| p,p'-DDT | 50293 | May 15, 1998 |
| 1,2-Dibromo-3-chloropropane (DBCP) | 96128 | February 27, 1987 |
| m-Dinitrobenzene | 99650 | July 1, 1990 |
| o-Dinitrobenzene | 528290 | July 1, 1990 |
| p-Dinitrobenzene | 100254 | July 1, 1990 |
| 2,4-Dinitrotoluene | 121142 | August 20, 1999 |
| 2,6-Dinitrotoluene | 606202 | August 20, 1999 |
| Dinitrotoluene (technical grade) | --- | August 20, 1999 |
| Dinoseb | 88857 | January 1, 1989 |
| Doxorubicin hydrochloride | 23214928 | January 29, 1999 |
| Epichlorohydrin | 106898 | September 1, 1996 |
| Ethylene dibromide | 106934 | May 15, 1998 |
| Ethylene glycol monoethyl ether | 110805 | January 1, 1989 |
| Ethylene glycol monomethyl ether | 109864 | January 1, 1989 |
| Ethylene glycol monoethyl ether acetate | 111159 | January 1, 1993 |
| Ethylene glycol monomethyl ether acetate | 110496 | January 1, 1993 |
| Ganciclovir sodium | 82410320 | August 26, 1997 |
| Gemfibrozil | 25812300 | August 20, 1999 |
| Goserelin acetate | 65807025 | August 26, 1997 |
| Hexamethylphosphoramide | 680319 | October 1, 1994 |

| | | |
|---|---|---|
| Hydramethylnon | 67485294 | March 5, 1999 |
| Idarubicin hydrochloride | 57852570 | August 20, 1999 |
| Lead | --- | February 27, 1987 |
| Leuprolide acetate | 74381536 | August 26, 1997 |
| Myclobutanil | 88671890 | April 16, 1999 |
| Nifedipine | 21829254 | January 29, 1999 |
| Nitrofurantoin | 67209 | April 1, 1991 |
| Oxydemeton methyl | 301122 | November 6, 1998 |
| Paclitaxel | 33069624 | August 26, 1997 |
| Quizalofop-ethyl | 76578148 | December 24, 1999 |
| Ribavirin | 36791045 | February 27, 2001 |
| Sodium fluoroacetate | 62748 | November 6, 1998 |
| Streptozocin (streptozotocin) | 18883664 | August 20, 1999 |
| Sulfasalazine | 599791 | January 29, 1999 |
| Thiophanate methyl | 23564058 | May 18, 1999 |
| Tobacco smoke (primary) | --- | April 1, 1988 |
| Triadimefon | 43121433 | March 30, 1999 |
| Uracil mustard | 66751 | January 1, 1992 |

Date: June 22, 2001

# D 1

(b) Disclosure Categories. Financial interests of employees holding positions designated in this Section are to be reported in statements of economic interests as follows:

Designated Employees in Category 1 must report:

All interests in real property, investments and sources of income.

His or her status as a director, officer, partner, trustee, employee, or holder of a management position in any business entity.

Designated Employees in Category 2 must report:

Contract consultants are considered designated persons who report in Category 1 of this Appendix. However, the Secretary of the Health and Welfare Agency may determine, in writing, that a particular consultant, although a "designated employee" is hired to perform a certain range of duties that are limited in scope and thus is not required to comply with the broad disclosure requirements described in Category 1. Such determinations shall include a description of the consultant's duties and, based upon that description, a statement to the extent of his or her disclosure requirements. A copy of this determination shall be forwarded to the Fair Political Practices Commission. Nothing herein excuses any such contract consultant from any other provision of this Conflict of Interest Code.

NOTE: Authority cited: Section 87300, Government Code. Reference: Sections 87300–87311, Government Code.

HISTORY

1. Amendment of subsection (a) filed 3–11–86; effective thirtieth day thereafter. Approved by Fair Political Practices Commission 2–4–86. (Register 86, No. 11).

2. Amendment filed 2–24–93 (Register 93, No. 9). Submitted to OAL for print purposes only pursuant to Government Code section 11343.8.

# Chapter 3. Safe Drinking Water and Toxic Enforcement Act of 1986

## § 12000. Chemicals Known to the State to Cause Cancer or Reproductive Toxicity.

(a) The Safe Drinking Water and Toxic Enforcement Act of 1986 requires that the Governor revise and republish at least once per year the list of chemicals known to the State to cause cancer or reproductive toxicity. The identification number indicated in the following list is the Chemical Abstracts Service (CAS) Registry Number. No CAS number is given when several substances are presented as a single listing. The date refers to the initial appearance of the chemical on the list.

(b) Chemicals known to the state to cause cancer.

| *Chemical* | *CAS Number* | *Date* |
|---|---|---|
| A–alpha–C (2–Amino–9H–pyrido [2,3–b]indole) | 26148685 | January 1, 1990 |
| Acetaldehyde | 75070 | April 1, 1988 |
| Acetamide | 60355 | January 1, 1990 |
| Acetochlor | 34256821 | January 1, 1989 |
| 2–Acetylaminofluorene | 53963 | July 1, 1987 |
| Acifluorfen | 62476599 | January 1, 1990 |
| Acrylamide | 79061 | January 1, 1990 |
| Acrylonitrile | 107131 | July 1, 1987 |
| Actinomycin D | 50760 | October 1, 1989 |
| Adriamycin (Doxorubicin hydrochloride) | 23214928 | July 1, 1987 |
| AF–2;[2–(2–furyl)–3–(5–nitro–2–furyl)] acrylamide | 3688537 | July 1, 1987 |
| Aflatoxins | — | January 1, 1988 |
| Alachlor | 15972608 | January 1, 1989 |
| Alcoholic beverages, when associated with alcohol abuse | — | July 1, 1988 |
| Aldrin | 309002 | July 1, 1988 |
| 2–Aminoanthraquinone | 117793 | October 1, 1989 |
| p–Aminoazobenzene | 60093 | January 1, 1990 |
| ortho–Aminoazotoluene | 97563 | July 1, 1987 |
| 4–Aminobiphenyl (4–aminodiphenyl) | 92671 | February 27, 1987 |
| 1–Amino–2,4–dibromoanthraquinone | 81492 | August 26, 1997 |
| 3–Amino–9–ethylcarbazole hydrochloride | 6109973 | July 1, 1989 |
| 2–Aminofluorene | 153786 | January 29, 1999 |
| 1–Amino–2–methylanthraquinone | 82280 | October 1, 1989 |
| 2–Amino–5–(5–nitro–2–furyl)–1,3,4–thiadiazole | 712685 | July 1, 1987 |
| 4–Amino–2–nitrophenol | 119346 | January 29, 1999 |
| Amitrole | 61825 | July 1, 1987 |
| Analgesic mixtures containing phenacetin | — | February 27, 1987 |
| Aniline | 62533 | January 1, 1990 |
| Aniline hydrochloride | 142041 | May 15, 1998 |
| ortho–Anisidine | 90040 | July 1, 1987 |
| ortho–Anisidine hydrochloride | 134292 | July 1, 1987 |
| Antimony oxide (Antimony trioxide) | 1309644 | October 1, 1990 |
| Aramite | 140578 | July 1, 1987 |
| Arsenic (inorganic arsenic compounds) | — | February 27, 1987 |
| Asbestos | 1332214 | February 27, 1987 |
| Auramine | 492808 | July 1, 1987 |
| Azacitidine | 320672 | January 1, 1992 |
| Azaserine | 115026 | July 1, 1987 |
| Azathioprine | 446866 | February 27, 1987 |
| Azobenzene | 103333 | January 1, 1990 |
| Benz[a]anthracene | 56553 | July 1, 1987 |
| Benzene | 71432 | February 27, 1987 |
| Benzidine (and its salts) | 92875 | February 27, 1987 |
| Benzidine–based dyes | — | October 1, 1992 |
| Benzo[b]fluoranthene | 205992 | July 1, 1987 |
| Benzo[j]fluoranthene | 205823 | July 1, 1987 |
| Benzo[k]fluoranthene | 207089 | July 1, 1987 |
| Benzofuran | 271896 | October 1, 1990 |
| Benzo[a]pyrene | 50328 | July 1, 1987 |
| Benzotrichloride | 98077 | July 1, 1987 |
| Benzyl chloride | 100447 | January 1, 1990 |
| Benzyl violet 4B | 1694093 | July 1, 1987 |
| Beryllium and beryllium compounds | — | October 1, 1987 |
| Betel quid with tobacco | — | January 1, 1990 |
| 2,2–Bis(bromomethyl)–1,3–propanediol | 3296900 | May 1, 1996 |
| Bis(2–chloroethyl)ether | 111444 | April 1, 1988 |
| N,N–Bis(2–chloroethyl)–2–naphthylamine (Chlornapazine) | 494031 | February 27, 1987 |
| Bischloroethyl nitrosourea (BCNU) (Carmustine) | 154938 | July 1, 1987 |
| Bis(chloromethyl)ether | 542881 | February 27, 1987 |
| Bis(2–chloro–1–methylethyl)ether, technical grade | — | October 29, 1999 |
| Bitumens, extracts of steam–refined and air refined | — | January 1, 1990 |
| Bracken fern | — | January 1, 1990 |
| Bromodichloromethane | 75274 | January 1, 1990 |
| Bromoform | 75252 | April 1, 1991 |
| 1,3–Butadiene | 106990 | April 1, 1988 |
| 1,4–Butanediol dimethanesulfonate (Busulfan) | 55981 | February 27, 1987 |
| Butylated hydroxyanisole | 25013165 | January 1, 1990 |
| beta–Butyrolactone | 3068880 | July 1, 1987 |
| Cacodylic acid | 75605 | May 1, 1996 |
| Cadmium and cadmium compounds | — | October 1, 1987 |
| Caffeic acid | 331395 | October 1, 1994 |
| Captafol | 2425061 | October 1, 1988 |
| Captan | 133062 | January 1, 1990 |
| Carbazole | 86748 | May 1, 1996 |
| Carbon tetrachloride | 56235 | October 1, 1987 |
| Carbon–black extracts | — | January 1, 1990 |
| Ceramic fibers (airborne particles of respirable size) | — | July 1, 1990 |
| Certain combined chemotherapy for lymphomas | — | February 27, 1987 |
| Chlorambucil | 305033 | February 27, 1987 |
| Chloramphenicol | 56757 | October 1, 1989 |
| Chlordane | 57749 | July 1, 1988 |
| Chlordecone (Kepone) | 143500 | January 1, 1988 |
| Chlordimeform | 6164983 | January 1, 1989 |
| Chlorendic acid | 115286 | July 1, 1989 |
| Chlorinated paraffins (Average chain length, C12; approximately 60 percent chlorine by weight) | 108171262 | July 1, 1989 |
| p–Chloroaniline | 106478 | October 1, 1994 |
| p–Chloroaniline hydrochloride | 20265967 | May 15, 1998 |
| Chloroethane (Ethyl chloride) | 75003 | July 1, 1990 |
| 1–(2–Chloroethyl)–3–cyclohexyl–1–nitrosourea (CCNU) (Lomustine) | 13010474 | January 1, 1988 |
| 1–(2–Chloroethyl)–3–(4–methylcyclohexyl)–1–nitrosourea (Methyl–CCNU) | 13909096 | October 1, 1988 |
| Chloroform | 67663 | October 1, 1987 |
| Chloromethyl methyl ether (technical grade) | 107302 | February 27, 1987 |

| Chemical | CAS Number | Date |
|---|---|---|
| 3–Chloro–2–methylpropene | 563473 | July 1, 1989 |
| 1–Chloro–4–nitrobenzene | 100005 | October 29, 1999 |
| 4–Chloro–ortho–phenylenediamine | 95830 | January 1, 1988 |
| p–Chloro–o–toluidine | 95692 | January 1, 1990 |
| p–Chloro–o–toluidine, strong acid salts of | — | May 15, 1998 |
| 5–Chloro–o–toluidine and its strong acid salts | — | October 24, 1997 |
| Chlorothalonil | 1897456 | January 1, 1989 |
| Chlorotrianisene | 569573 | September 1, 1996 |
| Chlorozotocin | 54749905 | January 1, 1992 |
| Chromium (hexavalent compounds) | — | February 27, 1987 |
| Chrysene | 218019 | January 1, 1990 |
| C. I. Acid Red 114 | 6459945 | July 1, 1992 |
| C.I. Basic Red 9 monohydrochloride | 569619 | July 1, 1989 |
| C.I. Direct Blue 15 | 2429745 | August 26, 1997 |
| C.I. Direct Blue 218 | 28407376 | August 26, 1997 |
| C.I. Solvent Yellow 14 | 842079 | May 15, 1998 |
| Ciclosporin (Cyclosporin A; Cyclosporine) | 59865133<br>79217600 | January 1, 1992 |
| Cidofovir | 113852372 | January 29, 1999 |
| Cinnamyl anthranilate | 87296 | July 1, 1989 |
| Cisplatin | 15663271 | October 1, 1988 |
| Citrus Red No. 2 | 6358538 | October 1, 1989 |
| Clofibrate | 637070 | September 1, 1996 |
| Cobalt metal powder | 7440484 | July 1, 1992 |
| Cobalt [II] oxide | 1307966 | July 1, 1992 |
| Coke oven emissions | — | February 27, 1987 |
| Conjugated estrogens | — | February 27, 1987 |
| Creosotes | — | October 1, 1988 |
| para–Cresidine | 120718 | January 1, 1988 |
| Cupferron | 135206 | January 1, 1988 |
| Cycasin | 14901087 | January 1, 1988 |
| Cyclophosphamide (anhydrous) | 50180 | February 27, 1987 |
| Cyclophosphamide (hydrated) | 6055192 | February 27, 1987 |
| Cytembena | 21739913 | May 15, 1998 |
| D&C Orange No. 17 | 3468631 | July 1, 1990 |
| D&C Red No. 8 | 2092560 | October 1, 1990 |
| D&C Red No. 9 | 5160021 | July 1, 1990 |
| D&C Red No. 19 | 81889 | July 1, 1990 |
| Dacarbazine | 4342034 | January 1, 1988 |
| Daminozide | 1596845 | January 1, 1990 |
| Dantron (Chrysazin; 1,8–Dihydroxyanthraquinone) | 117102 | January 1, 1992 |
| Daunomycin | 20830813 | January 1, 1988 |
| DDD (Dichlorodiphenyldichloroethane) | 72548 | January 1, 1989 |
| DDE (Dichlorodiphenyldichloroethylene) | 72559 | January 1, 1989 |
| DDT (Dichlorodiphenyltrichloroethane) | 50293 | October 1, 1987 |
| DDVP (Dichlorvos) | 62737 | January 1, 1989 |
| N,N′–Diacetylbenzidine | 613354 | October 1, 1989 |
| 2,4–Diaminoanisole | 615054 | October 1, 1990 |
| 2,4–Diaminoanisole sulfate | 39156417 | January 1, 1988 |
| 4,4′–Diaminodiphenyl ether (4,4′–Oxydianiline) | 101804 | January 1, 1988 |
| 2,4–Diaminotoluene | 95807 | January 1, 1988 |
| Diaminotoluene (mixed) | — | January 1, 1990 |
| Dibenz[a,h]acridine | 226368 | January 1, 1988 |
| Dibenz[a,j]acridine | 224420 | January 1, 1988 |
| Dibenz[a,h]anthracene | 53703 | January 1, 1988 |
| 7H–Dibenzo[c,g]carbazole | 194592 | January 1, 1988 |
| Dibenzo[a,e]pyrene | 192654 | January 1, 1988 |
| Dibenzo[a,h]pyrene | 189640 | January 1, 1988 |
| Dibenzo[a,i]pyrene | 189559 | January 1, 1988 |
| Dibenzo[a,l]pyrene | 191300 | January 1, 1988 |
| 1,2–Dibromo–3–chloropropane (DBCP) | 96128 | July 1, 1987 |
| 2,3–Dibromo–1–propanol | 96139 | October 1, 1994 |
| Dichloroacetic acid | 79436 | May 1, 1996 |
| p–Dichlorobenzene | 106467 | January 1, 1989 |
| 3,3′–Dichlorobenzidine | 91941 | October 1, 1987 |
| 3,3′–Dichlorobenzidine dihydrochloride | 612839 | May 15, 1998 |
| 1,4–Dichloro–2–butene | 764410 | January 1, 1990 |
| 3,3′–Dichloro–4,4′–diaminodiphenyl ether | 28434868 | January 1, 1988 |
| 1,1–Dichloroethane | 75343 | January 1, 1990 |
| Dichloromethane (Methylene chloride) | 75092 | April 1, 1988 |
| 1,2–Dichloropropane | 78875 | January 1, 1990 |
| 1,3–Dichloropropene | 542756 | January 1, 1989 |
| Dieldrin | 60571 | July 1, 1988 |
| Dienestrol | 84173 | January 1, 1990 |
| Diepoxybutane | 1464535 | January 1, 1988 |
| Diesel engine exhaust | — | October 1, 1990 |
| Di(2–ethylhexyl)phthalate | 117817 | January 1, 1988 |
| 1,2–Diethylhydrazine | 1615801 | January 1, 1988 |
| Diethyl sulfate | 64675 | January 1, 1988 |
| Diethylstilbestrol (DES) | 56531 | February 27, 1987 |
| Diglycidyl resorcinol ether (DGRE) | 101906 | July 1, 1989 |
| Dihydrosafrole | 94586 | January 1, 1988 |
| Diisopropyl sulfate | 2973106 | April 1, 1993 |
| 3,3′–Dimethoxybenzidine (ortho–Dianisidine) | 119904 | January 1, 1988 |
| 3,3′–Dimethoxybenzidine dihydrochloride (ortho–Dianisidine dihydrochloride) | 20325400 | October 1, 1990 |
| Dimethyl sulfate | 77781 | January 1, 1988 |
| 4–Dimethylaminoazobenzene | 60117 | January 1, 1988 |
| trans–2–[(Dimethylamino)methylimino]–5–[2–(5–nitro–2–furyl)vinyl]– 1,3, 4–oxadiazole | 55738540 | January 1, 1988 |
| 7,12–Dimethylbenz(a)anthracene | 57976 | January 1, 1990 |
| 3,3′–Dimethylbenzidine(ortho–Tolidine) | 119937 | January 1, 1988 |
| 3,3′–Dimethylbenzidine dihydrochloride | 612828 | April 1, 1992 |
| Dimethylcarbamoyl chloride | 79447 | January 1, 1988 |
| 1,1–Dimethylhydrazine (UDMH) | 57147 | October 1, 1989 |
| 1,2–Dimethylhydrazine | 540738 | January 1, 1988 |
| Dimethylvinylchloride | 513371 | July 1, 1989 |
| 3,7–Dinitrofluoranthene | 105735715 | August 26, 1997 |
| 3,9–Dinitrofluoranthene | 22506532 | August 26, 1997 |
| 1,6–Dinitropyrene | 42397648 | October 1, 1990 |
| 1,8–Dinitropyrene | 42397659 | October 1, 1990 |
| Dinitrotoluene mixture, 2,4–/2,6– | — | May 1, 1996 |
| 2,4–Dinitrotoluene | 121142 | July 1, 1988 |
| 2,6–Dinitrotoluene | 606202 | July 1, 1995 |
| Di–n–propyl isocinchomeronate (MGK Repellent 326) | 136458 | May 1, 1996 |
| 1,4–Dioxane | 123911 | January 1, 1988 |
| Diphenylhydantoin (Phenytoin) | 57410 | January 1, 1988 |
| Diphenylhydantoin (Phenytoin), sodium salt | 630933 | January 1, 1988 |
| Direct Black 38 (technical grade) | 1937377 | January 1, 1988 |
| Direct Blue 6 (technical grade) | 2602462 | January 1, 1988 |
| Direct Brown 95 (technical grade) | 16071866 | October 1, 1988 |
| Disperse Blue 1 | 2475458 | October 1, 1990 |
| Epichlorohydrin | 106898 | October 1, 1987 |
| Erionite | 12510428 | October 1, 1988 |
| Estradiol 17B | 50282 | January 1, 1988 |
| Estragole | 140670 | October 29, 1999 |
| Estrone | 53167 | January 1, 1988 |
| Estropipate | 7280377 | August 26, 1997 |
| Ethinylestradiol | 57636 | January 1, 1988 |
| Ethyl acrylate | 140885 | July 1, 1989 |
| Ethyl methanesulfonate | 62500 | January 1, 1988 |
| Ethyl–4,4′–dichlorobenzilate | 510156 | January 1, 1990 |
| Ethylene dibromide | 106934 | July 1, 1987 |
| Ethylene dichloride (1,2–Dichloroethane) | 107062 | October 1, 1987 |
| Ethylene oxide | 75218 | July 1, 1987 |
| Ethylene thiourea | 96457 | January 1, 1988 |
| Ethyleneimine | 151564 | January 1, 1988 |
| Folpet | 133073 | January 1, 1989 |
| Formaldehyde (gas) | 50000 | January 1, 1988 |
| 2–(2–Formylhydrazino)–4–(5–nitro–2–furyl) thiazole | 3570750 | January 1, 1988 |
| Furan | 110009 | October 1, 1993 |
| Furazolidone | 67458 | January 1, 1990 |
| Furmecyclox | 60568050 | January 1, 1990 |
| Fusarin C | 79748815 | July 1, 1995 |
| Ganciclovir sodium | 82410320 | August 26, 1997 |
| Gasoline engine exhaust (condensates/extracts) | — | October 1, 1990 |
| Glasswool fibers (airborne particles of respirable size) | — | July 1, 1990 |
| Glu–P–1 (2–Amino–6–methyldipyrido [1,2–a:3′,2′–d] imidazole) | 67730114 | January 1, 1990 |
| Glu–P–2 (2–Aminodipyrido [1,2–a:3′, 2′–d] imidazole | 67730103 | January 1, 1990 |
| Glycidaldehyde | 765344 | January 1, 1988 |
| Glycidol | 556525 | July 1, 1990 |
| Griseofulvin | 126078 | January 1, 1990 |
| Gyromitrin (Acetaldehyde methylformylhydrazone) | 16568028 | January 1, 1988 |
| HC Blue 1 | 2784943 | July 1, 1989 |
| Heptachlor | 76448 | July 1, 1988 |
| Heptachlor epoxide | 1024573 | July 1, 1988 |
| Hexachlorobenzene | 118741 | October 1, 1987 |
| Hexachlorocyclohexane (technical grade) | — | October 1, 1987 |
| Hexachlorodibenzodioxin | 34465468 | April 1, 1988 |

| Chemical | CAS Number | Date |
|---|---|---|
| Hexachloroethane | 67721 | July 1, 1990 |
| Hexamethylphosphoramide | 680319 | January 1, 1988 |
| Hydrazine | 302012 | January 1, 1988 |
| Hydrazine sulfate | 10034932 | January 1, 1988 |
| Hydrazobenzene (1,2–Diphenylhydrazine) | 122667 | January 1, 1988 |
| Indeno [1,2,3–cd]pyrene | 193395 | January 1, 1988 |
| IQ (2–Amino–3–methylimidazo[4,5–f] quinoline) | 76180966 | April 1, 1990 |
| Iprodione | 36734197 | May 1, 1996 |
| Iron dextran complex | 9004664 | January 1, 1988 |
| Isobutyl nitrite | 542563 | May 1, 1996 |
| Isoprene | 78795 | May 1, 1996 |
| Isosafrole | 120581 | October 1, 1989 |
| Lactofen | 77501634 | January 1, 1989 |
| Lasiocarpine | 303344 | April 1, 1988 |
| Lead acetate | 301042 | January 1, 1988 |
| Lead and lead compounds | — | October 1, 1992 |
| Lead phosphate | 7446277 | April 1, 1988 |
| Lead subacetate | 1335326 | October 1, 1989 |
| Lindane and other hexachlorocyclohexane isomers | — | October 1, 1989 |
| Mancozeb | 8018017 | January 1, 1990 |
| Maneb | 12427382 | January 1, 1990 |
| Me–A–alpha–C (2–Amino–3–methyl–9H–pyrido [2,3–b] indole) | 68006837 | January 1, 1990 |
| Medroxyprogesterone acetate | 71589 | January 1, 1990 |
| MeIQ(2–Amino–3,4–dimethylimidazo [4,5–f]quinoline) | 77094112 | October 1, 1994 |
| MeIQx(2–Amino–3,8–dimethylimidazo [4,5–f]quinoxaline) | 77500040 | October 1, 1994 |
| Melphalan | 148823 | February 27, 1987 |
| Merphalan | 531760 | April 1, 1988 |
| Mestranol | 72333 | April 1, 1988 |
| Metham sodium | 137428 | November 6, 1998 |
| 8–Methoxypsoralen with ultraviolet A therapy | 298817 | February 27, 1987 |
| 5–Methoxypsoralen with ultraviolet A therapy | 484208 | October 1, 1988 |
| 2–Methylaziridine (Propyleneimine) | 75558 | January 1, 1988 |
| Methylazoxymethanol | 590965 | April 1, 1988 |
| Methylazoxymethanol acetate | 592621 | April 1, 1988 |
| Methyl carbamate | 598550 | May 15, 1998 |
| 3–Methylcholanthrene | 56495 | January 1, 1990 |
| 5–Methylchrysene | 3697243 | April 1, 1988 |
| 4,4′–Methylene bis(2–chloroaniline) | 101144 | July 1, 1987 |
| 4,4′–Methylene bis(N,N–dimethyl) benzenamine | 101611 | October 1, 1989 |
| 4,4′–Methylene bis(2–methylaniline) | 838880 | April 1, 1988 |
| 4,4′–Methylenedianiline | 101779 | January 1, 1988 |
| 4,4′–Methylenedianiline dihydrochloride | 13552448 | January 1, 1988 |
| Methylhydrazine and its salts | — | July 1, 1992 |
| Methyl iodide | 74884 | April 1, 1988 |
| Methylmercury compounds | — | May 1, 1996 |
| Methyl methanesulfonate | 66273 | April 1, 1988 |
| 2–Methyl–1–nitroanthraquinone (of uncertain purity) | 129157 | April 1, 1988 |
| N–Methyl–N′–nitro–N–nitrosoguanidine | 70257 | April 1, 1988 |
| N–Methylolacrylamide | 924425 | July 1, 1990 |
| Methylthiouracil | 56042 | October 1, 1989 |
| Metiram | 9006422 | January 1, 1990 |
| Metronidazole | 443481 | January 1, 1988 |
| Michler's ketone | 90948 | January 1, 1988 |
| Mirex | 2385855 | January 1, 1988 |
| Mitomycin C | 50077 | April 1, 1988 |
| Monocrotaline | 315220 | April 1, 1988 |
| 5–(Morpholinomethyl)–3–[(5–nitro–furfurylidene)–amino]–2–oxazolidinone | 139913 | April 1, 1988 |
| Mustard Gas | 505602 | February 27, 1987 |
| Nafenopin | 3771195 | April 1, 1988 |
| Nalidixic acid | 389082 | May 15, 1998 |
| 1–Naphthylamine | 134327 | October 1, 1989 |
| 2–Naphthylamine | 91598 | February 27, 1987 |
| Nickel and certain nickel compounds | — | October 1, 1989 |
| Nickel carbonyl | 13463393 | October 1, 1987 |
| Nickel refinery dust from the pyrometallurgical process | — | October 1, 1987 |
| Nickel subsulfide | 12035722 | October 1, 1987 |
| Niridazole | 61574 | April 1, 1988 |
| Nitrilotriacetic acid | 139139 | January 1, 1988 |
| Nitrilotriacetic acid, trisodium salt monohydrate | 18662538 | April 1, 1989 |
| 5–Nitroacenaphthene | 602879 | April 1, 1988 |
| 5–Nitro–o–anisidine | 99592 | October 1, 1989 |
| o–Nitroanisole | 91236 | October 1, 1992 |
| Nitrobenzene | 98953 | August 26, 1997 |
| 4–Nitrobiphenyl | 92933 | April 1, 1988 |
| 6–Nitrochrysene | 7496028 | October 1, 1990 |
| Nitrofen (technical grade) | 1836755 | January 1, 1988 |
| 2–Nitrofluorene | 607578 | October 1, 1990 |
| Nitrofurazone | 59870 | January 1, 1990 |
| 1–[(5–Nitrofurfurylidene)–amino]–2–imidazolidinone | 555840 | April 1, 1988 |
| N–[4–(5–Nitro–2–furyl)–2–thiazolyl]acetamide | 531828 | April 1, 1988 |
| Nitrogen mustard (Mechlorethamine) | 51752 | January 1, 1988 |
| Nitrogen mustard hydrochloride (Mechlorethamine hydrochloride) | 55867 | April 1, 1988 |
| Nitrogen mustard N–oxide | 126852 | April 1, 1988 |
| Nitrogen mustard N–oxide hydrochloride | 302705 | April 1, 1988 |
| Nitromethane | 75525 | May 1, 1997 |
| 2–Nitropropane | 79469 | January 1, 1988 |
| 1–Nitropyrene | 5522430 | October 1, 1990 |
| 4–Nitropyrene | 57835924 | October 1, 1990 |
| N–Nitrosodi–n–butylamine | 924163 | October 1, 1987 |
| N–Nitrosodiethanolamine | 1116547 | January 1, 1988 |
| N–Nitrosodiethylamine | 55185 | October 1, 1987 |
| N–Nitrosodimethylamine | 62759 | October 1, 1987 |
| p–Nitrosodiphenylamine | 156105 | January 1, 1988 |
| N–Nitrosodiphenylamine | 86306 | April 1, 1988 |
| N–Nitrosodi–n–propylamine | 621647 | January 1, 1988 |
| N–Nitroso–N–ethylurea | 759739 | October 1, 1987 |
| 3–(N–Nitrosomethylamino)propionitrile | 60153493 | April 1, 1990 |
| 4–(N–Nitrosomethylamino)–1–(3–pyridyl)1–butanone | 64091914 | April 1, 1990 |
| N–Nitrosomethylethylamine | 10595956 | October 1, 1989 |
| N–Nitroso–N–methylurea | 684935 | October 1, 1987 |
| N–Nitroso–N–methylurethane | 615532 | April 1, 1988 |
| N–Nitrosomethylvinylamine | 4549400 | January 1, 1988 |
| N–Nitrosomorpholine | 59892 | January 1, 1988 |
| N–Nitrosonornicotine | 16543558 | January 1, 1988 |
| N–Nitrosopiperidine | 100754 | January 1, 1988 |
| N–Nitrosopyrrolidine | 930552 | October 1, 1987 |
| N–Nitrososarcosine | 13256229 | January 1, 1988 |
| o–Nitrotoluene | 88722 | May 15, 1998 |
| Norethisterone (Norethindrone) | 68224 | October 1, 1989 |
| Ochratoxin A | 303479 | July 1, 1990 |
| Oil Orange SS | 2646175 | April 1, 1988 |
| Oral contraceptives, combined | — | October 1, 1989 |
| Oral contraceptives, sequential | — | October 1, 1989 |
| Oxadiazon | 19666309 | July 1, 1991 |
| Oxazepam | 604751 | October 1, 1994 |
| Oxymetholone | 434071 | January 1, 1988 |
| Oxythioquinox | 2439012 | August 20, 1999 |
| Palygorskite fibers (>5μm in length) | 12174117 | December 28, 1999 |
| Panfuran S | 794934 | January 1, 1988 |
| Pentachlorophenol | 87865 | January 1, 1990 |
| Phenacetin | 62442 | October 1, 1989 |
| Phenazopyridine | 94780 | January 1, 1988 |
| Phenazopyridine hydrochloride | 136403 | January 1, 1988 |
| Phenesterin | 3546109 | July 1, 1989 |
| Phenobarbital | 50066 | January 1, 1990 |
| Phenolphthalein | 77098 | May 15, 1998 |
| Phenoxybenzamine | 59961 | April 1, 1988 |
| Phenoxybenzamine hydrochloride | 63923 | April 1, 1988 |
| o–Phenylenediamine and its salts | 95545 | May 15, 1998 |
| Phenyl glycidyl ether | 122601 | October 1, 1990 |
| Phenylhydrazine and its salts | — | July 1, 1992 |
| o–Phenylphenate, sodium | 132274 | January 1, 1990 |
| PhIP(2–Amino–1–methyl–6–phenylimidazol [4,5–b]pyridine) | 105650235 | October 1, 1994 |
| Polybrominated biphenyls | — | January 1, 1988 |
| Polychlorinated biphenyls | — | October 1, 1989 |
| Polychlorinated biphenyls (containing 60 or more percent chlorine by molecular weight) | — | January 1, 1988 |
| Polychlorinated dibenzo–p–dioxins | — | October 1, 1992 |
| Polychlorinated dibenzofurans | — | October 1, 1992 |
| Polygeenan | 53973981 | January 1, 1988 |
| Ponceau MX | 3761533 | April 1, 1988 |
| Ponceau 3R | 3564098 | April 1, 1988 |
| Potassium bromate | 7758012 | January 1, 1990 |

| Chemical | CAS Number | Date |
|---|---|---|
| Primidone | 125337 | August 20, 1999 |
| Procarbazine | 671169 | January 1, 1988 |
| Procarbazine hydrochloride | 366701 | January 1, 1988 |
| Procymidone | 32809168 | October 1, 1994 |
| Progesterone | 57830 | January 1, 1988 |
| 1,3–Propane sultone | 1120714 | January 1, 1988 |
| Propargite | 2312358 | October 1, 1994 |
| Pronamide | 23950585 | May 1, 1996 |
| beta–Propiolactone | 57578 | January 1, 1988 |
| Propylene oxide | 75569 | October 1, 1988 |
| Propylthiouracil | 51525 | January 1, 1988 |
| Quinoline and its strong acid salts | — | October 24, 1997 |
| Radionuclides | — | July 1, 1989 |
| Reserpine | 50555 | October 1, 1989 |
| Residual (heavy) fuel oils | — | October 1, 1990 |
| Saccharin | 81072 | October 1, 1989 |
| Saccharin, sodium | 128449 | January 1, 1988 |
| Safrole | 94597 | January 1, 1988 |
| Salicylazosulfapyridine | 599791 | May 15, 1998 |
| Selenium sulfide | 7446346 | October 1, 1989 |
| Shale–oils | 68308349 | April 1, 1990 |
| Silica, crystalline (airborne particles of respirable size) | — | October 1, 1988 |
| Soots, tars, and mineral oils (untreated and mildly treated oils and used engine oils) | — | February 27, 1987 |
| Spironolactone | 52017 | May 1, 1997 |
| Stanozolol | 10418038 | May 1, 1997 |
| Sterigmatocystin | 10048132 | April 1, 1988 |
| Streptozotocin (streptozocin) | 18883664 | January 1, 1988 |
| Styrene oxide | 96093 | October 1, 1988 |
| Sulfallate | 95067 | January 1, 1988 |
| Talc containing asbestiform fibers | — | April 1, 1990 |
| Tamoxifen and its salts | 10540291 | September 1, 1996 |
| Terrazole | 2593159 | October 1, 1994 |
| Testosterone and its esters | 58220 | April 1, 1988 |
| 2,3,7,8–Tetrachlorodibenzo–para–dioxin (TCDD) | 1746016 | January 1, 1988 |
| 1,1,2,2–Tetrachloroethane | 79345 | July 1, 1990 |
| Tetrachloroethylene (Perchloroethylene) | 127184 | April 1, 1988 |
| p–α,α,α–Tetrachlorotoluene | 5216251 | January 1, 1990 |
| Tetrafluoroethylene | 116143 | May 1, 1997 |
| Tetranitromethane | 509148 | July 1, 1990 |
| Thioacetamide | 62555 | January 1, 1988 |
| 4,4′–Thiodianiline | 139651 | April 1, 1988 |
| Thiodicarb | 59669260 | August 20, 1999 |
| Thiourea | 62566 | January 1, 1988 |
| Thorium dioxide | 1314201 | February 27, 1987 |
| Tobacco, oral use of smokeless products | — | April 1, 1988 |
| Tobacco smoke | — | April 1, 1988 |
| Toluene diisocyanate | 26471625 | October 1, 1989 |
| ortho–Toluidine | 95534 | January 1, 1988 |
| ortho–Toluidine hydrochloride | 636215 | January 1, 1988 |
| Toxaphene (Polychorinated camphenes) | 8001352 | January 1, 1988 |
| Treosulfan | 299752 | February 27, 1987 |
| Trichlormethine (Trimustine hydrochloride) | 817094 | January 1, 1992 |
| 2,4,6–Trichlorophenol | 88062 | January 1, 1988 |
| 1,2,3–Trichloropropane | 96184 | October 1, 1992 |
| Trimethyl phosphate | 512561 | May 1, 1996 |
| 2,4,5–Trimethylaniline and its strong acid salts | — | October 24, 1997 |
| Triphenyltin hydroxide | 76879 | July 1, 1992 |
| Trichloroethylene | 79016 | April 1, 1988 |
| Tris(aziridinyl)–para–benzoquinone (Triaziquone) | 68768 | October 1, 1989 |
| Tris(1–aziridinyl)phosphine sulfide (Thiotepa) | 52244 | January 1, 1988 |
| Tris(2–chloroethyl)phosphate | 115968 | April 1, 1992 |
| Tris(2,3–dibromopropyl)phosphate | 126727 | January 1, 1988 |
| Trp–P–1 (Tryptophan–P–1) | 62450060 | April 1, 1988 |
| Trp–P–2 (Tryptophan–P–2) | 62450071 | April 1, 1988 |
| Trypan blue (commercial grade) | 72571 | October 1, 1989 |
| Unleaded gasoline (wholly vaporized) | — | April 1, 1988 |
| Uracil mustard | 66751 | April 1, 1988 |
| Urethane (Ethyl carbamate) | 51796 | January 1, 1988 |
| Vinclozolin | 50471448 | August 20, 1999 |
| Vinyl bromide | 593602 | October 1, 1988 |
| Vinyl chloride | 75014 | February 27, 1987 |
| 4–Vinylcyclohexene | 100403 | May 1, 1996 |
| 4–Vinyl–1–cyclohexene diepoxide (Vinyl cyclohexene dioxide) | 106876 | July 1, 1990 |
| Vinyl fluoride | 75025 | May 1, 1997 |
| Vinyl trichloride (1,1,2–Trichloroethane) | 79005 | October 1, 1990 |
| 2,6–Xylidine (2,6–Dimethylaniline) | 87627 | January 1, 1991 |

(c) Chemicals known to the state to cause reproductive toxicity.

(1) Developmental toxicity

| Chemical | CAS Number | Date |
|---|---|---|
| Acetazolamide | 59665 | August 20, 1999 |
| Acetohydroxamic acid | 546883 | April 1, 1990 |
| Actinomycin D | 50760 | October 1, 1992 |
| All–trans retinoic acid | 302794 | January 1, 1989 |
| Alprazolam | 28981977 | July 1, 1990 |
| Altretamine | 645056 | August 20, 1999 |
| Amikacin sulfate | 39831555 | July 1, 1990 |
| Aminoglutethimide | 125848 | July 1, 1990 |
| Aminoglycosides | — | October 1, 1992 |
| Aminopterin | 54626 | July 1, 1987 |
| Amiodarone hydrochloride | 19774824 | August 26, 1997 |
| Amitraz | 33089611 | March 30, 1999 |
| Amoxapine | 14028445 | May 15, 1998 |
| Angiotensin converting enzyme (ACE) inhibitors | — | October 1, 1992 |
| Anisindione | 117373 | October 1, 1992 |
| Arsenic (inorganic oxides) | — | May 1, 1997 |
| Aspirin (NOTE: It is especially important not to use aspirin during the last three months of pregnancy, unless specifically directed to do so by a physician because it may cause problems in the unborn child or complications during delivery.) | 50782 | July 1, 1990 |
| Atenolol | 29122687 | August 26, 1997 |
| Auranofin | 34031328 | January 29, 1999 |
| Azathioprine | 446866 | September 1, 1996 |
| Barbiturates | — | October 1, 1992 |
| Beclomethasone dipropionate | 5534098 | May 15, 1998 |
| Benomyl | 17804352 | July 1, 1991 |
| Benzene | 71432 | December 26, 1997 |
| Benzphetamine hydrochloride | 5411223 | April 1, 1990 |
| Benzodiazepines | — | October 1, 1992 |
| Bischloroethyl nitrosourea (BCNU) (Carmustine) | 154938 | July 1, 1990 |
| Bromacil lithium salt | 53404196 | May 18, 1999 |
| Bromoxynil | 1689845 | October 1, 1990 |
| Bromoxynil octanoate | 1689992 | May 18, 1999 |
| Butabarbital sodium | 143817 | October 1, 1992 |
| 1,4–Butanediol dimethanesulfonate (Busulfan) | 55981 | January 1, 1989 |
| Cadmium | — | May 1, 1997 |
| Carbamazepine | 298464 | January 29, 1999 |
| Carbon disulfide | 75150 | July 1, 1989 |
| Carbon monoxide | 630080 | July 1, 1989 |
| Carboplatin | 41575944 | July 1, 1990 |
| Chenodiol | 474259 | April 1, 1990 |
| Chinomethionat (Oxythioquinox) | 2439012 | November 6, 1998 |
| Chlorambucil | 305033 | January 1, 1989 |
| Chlorcyclizine hydrochloride | 1620219 | July 1, 1987 |
| Chlordecone (Kepone) | 143500 | January 1, 1989 |
| Chlordiazepoxide | 58253 | January 1, 1992 |
| Chlordiazepoxide hydrochloride | 438415 | January 1, 1992 |
| 1–(2–Chloroethyl)–3–cyclohexyl–1–nitrosourea (CCNU) (Lomustine) | 13010474 | July 1, 1990 |
| Chlorsulfuron | 64902723 | May 14, 1999 |
| Cidofovir | 113852372 | January 29, 1999 |
| Cladribine | 4291638 | September 1, 1996 |
| Clarithromycin | 81103119 | May 1, 1997 |
| Clobetasol propionate | 25122467 | May 15, 1998 |
| Clomiphene citrate | 50419 | April 1, 1990 |
| Clorazepate dipotassium | 57109907 | October 1, 1992 |
| Cocaine | 50362 | July 1, 1989 |
| Codeine phosphate | 52288 | May 15, 1998 |
| Colchicine | 64868 | October 1, 1992 |
| Conjugated estrogens | — | April 1, 1990 |
| Cyanazine | 21725462 | April 1, 1990 |
| Cycloate | 1134232 | March 19, 1999 |

| Chemical | CAS Number | Date |
|---|---|---|
| Cycloheximide | 66819 | January 1, 1989 |
| Cyclophosphamide (anhydrous) | 50180 | January 1, 1989 |
| Cyclophosphamide (hydrated) | 6055192 | January 1, 1989 |
| Cyhexatin | 13121705 | January 1, 1989 |
| Cytarabine | 147944 | January 1, 1989 |
| Dacarbazine | 4342034 | January 29, 1999 |
| Danazol | 17230885 | April 1, 1990 |
| Daunorubicin hydrochloride | 23541506 | July 1, 1990 |
| 2,4–D butyric acid | 94826 | June 18, 1999 |
| o,p'–DDT | 789026 | May 15, 1998 |
| p,p'–DDT | 50293 | May 15, 1998 |
| 2,4–DP (dichloroprop) | 120365 | April 27, 1999 |
| Demeclocycline hydrochloride (internal use) | 64733 | January 1, 1992 |
| Diazepam | 439145 | January 1, 1992 |
| Dichlorophene | 97234 | April 27, 1999 |
| Diclofop methyl | 51338273 | March 5, 1999 |
| Dicumarol | 66762 | October 1, 1992 |
| Diethylstilbestrol (DES) | 56531 | July 1, 1987 |
| Diflunisal | 22494424 | January 29, 1999 |
| Dihydroergotamine mesylate | 6190392 | May 1, 1997 |
| Dinocap | 39300453 | April 1, 1990 |
| Dinoseb | 88857 | January 1, 1989 |
| Diphenylhydantoin (Phenytoin) | 57410 | July 1, 1987 |
| Disodium cyanodithioimidocarbonate | 138932 | March 30, 1999 |
| Doxorubicin hydrochloride | 23214928 | January 29, 1999 |
| Doxycycline (internal use) | 564250 | July 1, 1990 |
| Doxycycline calcium (internal use) | 94088854 | January 1, 1992 |
| Doxycycline hyclate (internal use) | 24390145 | October 1, 1991 |
| Doxycycline monohydrate (internal use) | 17086281 | October 1, 1991 |
| Endrin | 72208 | May 15, 1998 |
| Ergotamine tartrate | 379793 | April 1, 1990 |
| Estropipate | 7280377 | August 26, 1997 |
| Ethionamide | 536334 | August 26, 1997 |
| Ethyl alcohol in alcoholic beverages | — | October 1, 1987 |
| Ethyl dipropylthiocarbamate | 759944 | April 27, 1999 |
| Ethylene dibromide | 106934 | May 15, 1998 |
| Ethylene glycol monoethyl ether | 110805 | January 1, 1989 |
| Ethylene glycol monomethyl ether | 109864 | January 1, 1989 |
| Ethylene glycol monoethyl ether acetate | 111159 | January 1, 1993 |
| Ethylene glycol monomethyl ether acetate | 110496 | January 1, 1993 |
| Ethylene thiourea | 96457 | January 1, 1993 |
| Etodolac | 41340254 | August 20, 1999 |
| Etoposide | 33419420 | July 1, 1990 |
| Etretinate | 54350480 | July 1, 1987 |
| Fenoxaprop ethyl | 66441234 | March 26, 1999 |
| Fluazifop butyl | 69806504 | November 6, 1998 |
| Flunisolide | 3385033 | May 15, 1998 |
| Fluorouracil | 51218 | January 1, 1989 |
| Fluoxymesterone | 76437 | April 1, 1990 |
| Flurazepam hydrochloride | 1172185 | October 1, 1992 |
| Flurbiprofen | 5104494 | August 20, 1999 |
| Flutamide | 13311847 | July 1, 1990 |
| Fluticasone propionate | 80474142 | May 15, 1998 |
| Fluvalinate | 69409945 | November 6, 1998 |
| Ganciclovir sodium | 82410320 | August 26, 1997 |
| Goserelin acetate | 65807025 | August 26, 1997 |
| Halazepam | 23092173 | July 1, 1990 |
| Halobetasol propionate | 66852548 | August 20, 1999 |
| Haloperidol | 52868 | January 29, 1999 |
| Halothane | 151677 | September 1, 1996 |
| Heptachlor | 76448 | August 20, 1999 |
| Hexachlorobenzene | 118741 | January 1, 1989 |
| Histrelin acetate | — | May 15, 1998 |
| Hydramethylnon | 67485294 | March 5, 1999 |
| Hydroxyurea | 127071 | May 1, 1997 |
| Idarubicin hydrochloride | 57852570 | August 20, 1999 |
| Ifosfamide | 3778732 | July 1, 1990 |
| Iodine–131 | 10043660 | January 1, 1989 |
| Isotretinoin | 4759482 | July 1, 1987 |
| Lead | — | February 27, 1987 |
| Leuprolide acetate | 74381536 | August 26, 1997 |
| Levodopa | 59927 | January 29, 1999 |
| Linuron | 330552 | March 19, 1999 |
| Lithium carbonate | 554132 | January 1, 1991 |
| Lithium citrate | 919164 | January 1, 1991 |
| Lorazepam | 846491 | July 1, 1990 |
| Lovastatin | 75330755 | October 1, 1992 |
| Mebendazole | 31431397 | August 20, 1999 |
| Medroxyprogesterone acetate | 71589 | April 1, 1990 |
| Megestrol acetate | 595335 | January 1, 1991 |
| Melphalan | 148823 | July 1, 1990 |
| Menotropins | 9002680 | April 1, 1990 |
| Meprobamate | 57534 | January 1, 1992 |
| Mercaptopurine | 6112761 | July 1, 1990 |
| Mercury and mercury compounds | — | July 1, 1990 |
| Methacycline hydrochloride | 3963959 | January 1, 1991 |
| Metham sodium | 137428 | May 15, 1998 |
| Methazole | 20354261 | December 1, 1999 |
| Methimazole | 60560 | July 1, 1990 |
| Methotrexate | 59052 | January 1, 1989 |
| Methotrexate sodium | 15475566 | April 1, 1990 |
| Methyl bromide as a structural fumigant | 74839 | January 1, 1993 |
| Methyl chloride | 74873 | March 10, 2000 |
| Methyl mercury | — | July 1, 1987 |
| Methyltestosterone | 58184 | April 1, 1990 |
| Metiram | 9006422 | March 30, 1999 |
| Midazolam hydrochloride | 59467968 | July 1, 1990 |
| Minocycline hydrochloride (internal use) | 13614987 | January 1, 1992 |
| Misoprostol | 59122462 | April 1, 1990 |
| Mitoxantrone hydrochloride | 70476823 | July 1, 1990 |
| Myclobutanil | 88671890 | April 16, 1999 |
| Nabam | 142596 | March 30, 1999 |
| Nafarelin acetate | 86220420 | April 1, 1990 |
| Neomycin sulfate (internal use) | 1405103 | October 1, 1992 |
| Netilmicin sulfate | 56391572 | July 1, 1990 |
| Nickel carbonyl | 13463393 | September 1, 1996 |
| Nicotine | 54115 | April 1, 1990 |
| Nifedipine | 21829254 | January 29, 1999 |
| Nitrapyrin | 1929824 | March 30, 1999 |
| Nitrogen mustard (Mechlorethamine) | 51752 | January 1, 1989 |
| Nitrogen mustard hydrochloride (Mechlorethamine hydrochloride) | 55867 | July 1, 1990 |
| Norethisterone (Norethindrone) | 68224 | April 1, 1990 |
| Norethisterone acetate (Norethindrone acetate) | 51989 | October 1, 1991 |
| Norethisterone (Norethindrone)/Ethinyl estradiol | 68224/57636 | April 1, 1990 |
| Norethisterone (Norethindrone)/ Mestranol | 68224/72333 | April 1, 1990 |
| Norgestrel | 6533002 | April 1, 1990 |
| Oxadiazon | 19666309 | May 15, 1998 |
| Oxazepam | 604751 | October 1, 1992 |
| Oxymetholone | 434071 | May 1, 1997 |
| Oxytetracycline (internal use) | 79572 | January 1, 1991 |
| Oxytetracycline hydrochloride (internal use) | 2058460 | October 1, 1991 |
| Paclitaxel | 33069624 | August 26, 1997 |
| Paramethadione | 115673 | July 1, 1990 |
| Penicillamine | 52675 | January 1, 1991 |
| Pentobarbital sodium | 57330 | July 1, 1990 |
| Pentostatin | 53910251 | September 1, 1996 |
| Phenacemide | 63989 | July 1, 1990 |
| Phenprocoumon | 435972 | October 1, 1992 |
| Pimozide | 2062784 | August 20, 1999 |
| Pipobroman | 54911 | July 1, 1990 |
| Plicamycin | 18378897 | April 1, 1990 |
| Polybrominated biphenyls | — | October 1, 1994 |
| Polychlorinated biphenyls | — | January 1, 1991 |
| Potassium dimethyldithiocarbamate | 128030 | March 30, 1999 |
| Pravastatin sodium | 81131706 | March 3, 2000 |
| Prednisolone sodium phosphate | 125020 | August 20, 1999 |
| Procarbazine hydrochloride | 366701 | July 1, 1990 |
| Propargite | 2312358 | June 15, 1999 |
| Propylthiouracil | 51525 | July 1, 1990 |
| Pyrimethamine | 58140 | January 29, 1999 |
| Quazepam | 36735225 | August 26, 1997 |

| Chemical | CAS Number | Date |
|---|---|---|
| Resmethrin | 10453868 | November 6, 1998 |
| Retinol/retinyl esters, when in daily dosages in excess of 10,000 IU, or 3,000 retinol equivalents. (NOTE: Retinol/retinyl esters are required and essential for maintenance of normal reproductive function. The recommended daily level during pregnancy is 8,000 IU.) | — | July 1, 1989 |
| Ribavirin | 36791045 | April 1, 1990 |
| Secobarbital sodium | 309433 | October 1, 1992 |
| Sermorelin acetate | — | August 20, 1999 |
| Sodium dimethyldithiocarbamate | 128041 | March 30, 1999 |
| Streptomycin sulfate | 3810740 | January 1, 1991 |
| Streptozocin (streptozotocin) | 18883664 | August 20, 1999 |
| Sulindac | 38194502 | January 29, 1999 |
| Tamoxifen citrate | 54965241 | July 1, 1990 |
| Temazepam | 846504 | April 1, 1990 |
| Teniposide | 29767202 | September 1, 1996 |
| Terbacil | 5902512 | May 18, 1999 |
| Testosterone cypionate | 58208 | October 1, 1991 |
| Testosterone enanthate | 315377 | April 1, 1990 |
| 2,3,7,8–Tetrachlorodibenzo–para–dioxin (TCDD) | 1746016 | April 1, 1991 |
| Tetracycline (internal use) | 60548 | October 1, 1991 |
| Tetracyclines (internal use) | — | October 1, 1992 |
| Tetracycline hydrochloride (internal use) | 64755 | January 1, 1991 |
| Thalidomide | 50351 | July 1, 1987 |
| Thioguanine | 154427 | July 1, 1990 |
| Tobacco smoke (primary) | — | April 1, 1988 |
| Tobramycin sulfate | 49842071 | July 1, 1990 |
| Toluene | 108883 | January 1, 1991 |
| Triadimefon | 43121433 | March 30, 1999 |
| Triazolam | 28911015 | April 1, 1990 |
| Tributyltin methacrylate | 2155706 | December 1, 1999 |
| Triforine | 26644462<br>37273840 | June 18, 1999 |
| Trilostane | 13647353 | April 1, 1990 |
| Trimethadione | 127480 | January 1, 1991 |
| Trimetrexate glucuronate | 82952645 | August 26, 1997 |
| Uracil mustard | 66751 | January 1, 1992 |
| Urethane | 51796 | October 1, 1994 |
| Urofollitropin | 26995915 | April 1, 1990 |
| Valproate (Valproic acid) | 99661 | July 1, 1987 |
| Vinblastine sulfate | 143679 | July 1, 1990 |
| Vinclozolin | 50471448 | May 15, 1998 |
| Vincristine sulfate | 2068782 | July 1, 1990 |
| Warfarin | 81812 | July 1, 1987 |
| (2) Female reproductive toxicity | | |
| Aminopterin | 54626 | July 1, 1987 |
| Amiodarone hydrochloride | 19774824 | August 26, 1997 |
| Anabolic steroids | — | April 1, 1990 |
| Aspirin (NOTE: It is especially important not to use aspirin during the last three months of pregnancy, unless specifically directed to do so by a physician because it may cause problems in the unborn child or complications during delivery.) | 50782 | July 1, 1990 |
| Carbon disulfide | 75150 | July 1, 1989 |
| Chlorsulfuron | 64902723 | May 14, 1999 |
| Cidofovir | 113852372 | January 29, 1999 |
| Clobetasol propionate | 25122467 | May 15, 1998 |
| Cocaine | 50362 | July 1, 1989 |
| Cyclophosphamide (anhydrous) | 50180 | January 1, 1989 |
| Cyclophosphamide (hydrated) | 6055192 | January 1, 1989 |
| o,p′–DDT | 789026 | May 15, 1998 |
| p,p′–DDT | 50293 | May 15, 1998 |
| Diflunisal | 22494424 | January 29, 1999 |
| Dinitrotoluene (technical grade) | — | August 20, 1999 |
| Ethylene oxide | 75218 | February 27, 1987 |
| Etodolac | 41340254 | August 20, 1999 |
| Flumisolide | 3385033 | May 15, 1998 |
| Flurbiprofen | 5104494 | August 20, 1999 |
| Gemfibrozil | 25812300 | August 20, 1999 |
| Goserelin acetate | 65807025 | August 26, 1997 |
| Haloperidol | 52868 | January 29, 1999 |
| Lead | — | February 27, 1987 |
| Leuprolide acetate | 74381536 | August 26, 1997 |
| Levonorgestrel implants | 797637 | May 15, 1998 |
| Nifedipine | 21829254 | January 29, 1999 |
| Oxydemeton methyl | 301122 | November 6, 1998 |
| Paclitaxel | 33069624 | August 26, 1997 |
| Pimozide | 2062784 | August 20, 1999 |
| Streptozocin (streptozotocin) | 18883664 | August 20, 1999 |
| Sulindac | 38194502 | January 29, 1999 |
| Thiophanate methyl | 23564058 | May 18, 1999 |
| Tobacco smoke (primary) | — | April 1, 1988 |
| Triadimefon | 43121433 | March 30, 1999 |
| Uracil mustard | 66751 | January 1, 1992 |
| (3) Male reproductive toxicity | | |
| Altretamine | 645056 | August 20, 1999 |
| Amiodarone hydrochloride | 19774824 | August 26, 1997 |
| Anabolic steroids | — | April 1, 1990 |
| Benomyl | 17804352 | July 1, 1991 |
| Benzene | 71432 | December 26, 1997 |
| Cadmium | — | May 1, 1997 |
| Carbon disulfide | 75150 | July 1, 1989 |
| Chlorsulfuron | 64902723 | May 14, 1999 |
| Cidofovir | 113852372 | January 29, 1999 |
| Colchicine | 64868 | October 1, 1992 |
| Cyclohexanol | 108930 | November 6, 1998 |
| Cyclophosphamide (anhydrous) | 50180 | January 1, 1989 |
| Cyclophosphamide (hydrated) | 6055192 | January 1, 1989 |
| 2,4–D butyric acid | 94826 | June 18, 1999 |
| o,p′–DDT | 789026 | May 15, 1998 |
| p,p′–DDT | 50293 | May 15, 1998 |
| 1,2–Dibromo–3–chloropropane (DBCP) | 96128 | February 27, 1987 |
| m–Dinitrobenzene | 99650 | July 1, 1990 |
| o–Dinitrobenzene | 528290 | July 1, 1990 |
| p–Dinitrobenzene | 100254 | July 1, 1990 |
| 2,4–Dinitrotoluene | 121142 | August 20, 1999 |
| 2,6–Dinitrotoluene | 606202 | August 20, 1999 |
| Dinitrotoluene (technical grade) | — | August 20, 1999 |
| Dinoseb | 88857 | January 1, 1989 |
| Doxorubicin hydrochloride | 23214928 | January 29, 1999 |
| Epichlorohydrin | 106898 | September 1, 1996 |
| Ethylene dibromide | 106934 | May 15, 1998 |
| Ethylene glycol monoethyl ether | 110805 | January 1, 1989 |
| Ethylene glycol monomethyl ether | 109864 | January 1, 1989 |
| Ethylene glycol monoethyl ether acetate | 111159 | January 1, 1993 |
| Ethylene glycol monomethyl ether acetate | 110496 | January 1, 1993 |
| Ganciclovir sodium | 82410320 | August 26, 1997 |
| Gemfibrozil | 25812300 | August 20, 1999 |
| Goserelin acetate | 65807025 | August 26, 1997 |
| Hexamethylphosphoramide | 680319 | October 1, 1994 |
| Hydramethylnon | 67485294 | March 5, 1999 |
| Idarubicin hydrochloride | 57852570 | August 20, 1999 |
| Lead | — | February 27, 1987 |
| Leuprolide acetate | 74381536 | August 26, 1997 |
| Myclobutanil | 88671890 | April 16, 1999 |
| Nifedipine | 21829254 | January 29, 1999 |
| Nitrofurantoin | 67209 | April 1, 1991 |
| Oxydemeton methyl | 301122 | November 6, 1998 |

| *Chemical* | *CAS Number* | *Date* |
|---|---|---|
| Paclitaxel | 33069624 | August 26, 1997 |
| Quizalofop-ethyl | 76578148 | December 24, 1999 |
| Sodium fluoroacetate | 62748 | November 6, 1998 |
| Streptozocin (streptozotocin) | 18883664 | August 20, 1999 |
| Sulfasalazine | 599791 | January 29, 1999 |
| Thiophanate methyl | 23564058 | May 18, 1999 |
| Tobacco smoke (primary) | — | April 1, 1988 |
| Triadimefon | 43121433 | March 30, 1999 |
| Uracil mustard | 66751 | January 1, 1992 |

Date: March 10, 2000

HISTORY

1. New chapter 3 (section 12000) submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 88, No. 4).
2. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 88, No. 17).
3. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 88, No. 30).
4. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 88, No. 45).
5. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 89, No. 4).
6. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 89, No. 16).
7. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 89, No. 29).
8. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 89, No. 41).
9. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 90, No. 2).
10. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 90, No. 28).
11. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 90, No. 35).
12. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 90, No. 45).
13. Editorial correction of printer error inadvertently omitting several chemicals (Register 90, No. 45).
14. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 91, No. 15).
15. Editorial correction of errors in chemical name, CAS number, and spelling (Register 91, No. 15).
16. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 91, No. 17).
17. Editorial correction of printing errors (Register 91, No. 43).
18. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 92, No. 6).
19. Editorial correction of printing errors (Register 92, No. 29).
20. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 92, No. 43).
21. Editorial correction instituting inadvertently omitted amendment. Submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 93, No. 20).
22. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 93, No. 45).
23. Editorial correction of printing errors (Register 93, No. 45).
24. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 94, No. 46).
25. Amendment submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 95, No. 52).
26. Editorial correction of printing errors (Register 96, No. 23).
27. Amendment filed 6-5-96; operative 4-23-96. Submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 96, No. 23).
28. Amendment of subsections (b), (c)(1) and (c)(3) filed 9-30-96; operative 9-30-96. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 96, No. 40).
29. Editorial correction of printing errors (Register 96, No. 40).
30. Amendment of subsection (c)(1) filed 10-16-96; operative 9-3-96. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 96, No. 42).
31. Amendment of subsections (b), (c)(1) and (c)(3) filed 6-3-97; operative 6-3-97 pursuant to Government Code section 11343.4(d). Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 97, No. 23).
32. Editorial correction of spacing and alphabetical placements (Register 97, No. 39).
33. Amendment filed 9-24-97; operative 9-24-97. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 97, No. 39).
34. Amendment filed 2-3-98; operative 1-9-98. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 98, No. 6).
35. Amendment filed 6-24-98; operative 6-24-98. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 98, No. 26).
36. Amendment filed 11-9-98; operative 11-9-98 pursuant to Government Code 11343.4(d). Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 98, No. 46).
37. Amendment of subsections (b) and (c)(1)-(c)(3) filed 3-15-99; operative 3-15-99. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 99, No. 12).
38. Amendment of subsections (b) and (c)(1)-(c)(3) filed 5-3-99; operative 5-3-99. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 99, No. 19).
39. Amendment of subsections (c)(1) and (c)(3) filed 5-28-99; operative 5-28-99. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 99, No. 22).
40. Amendment of subsections (b) and (c)(1)-(3) filed 8-10-99; operative 6-18-99. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 99, No. 33).
41. Amendment of subsections (b) and (c)(1)-(3) filed 11-10-99; operative 8-20-99. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 99, No. 46).
42. Amendment of subsections (b) and (c)(1)-(3) filed 2-2-2000; operative 10-29-99. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8. On January 1, 1990, allyl chloride, chlorodibromomethane, para-Toluidine, and zineb were all added to the list of chemicals known to the state to cause cancer. Effective October 29, 1999, those same chemicals were removed from the list of chemicals known to the state to cause cancer (Register 2000, No. 5).
43. Amendment of subsection (c)(1) filed 4-12-2000; operative 3-10-2000. Submitted to OAL for printing only pursuant to Health and Safety Code section 25249.8 (Register 2000, No. 15).

## Article 1. Guideline and Safe Use Determination Procedures

### Preamble

(a) It is the practice of the Health and Welfare Agency, as lead agency for implementing the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code Section 25249.5 et seq.) to answer inquiries of individuals and organizations, whenever appropriate, as to the application of the Safe Drinking Water and Toxic Enforcement Act of 1986 to their activities. One of Agency's functions is to issue public rulings on the requirements of the Act.

(b) It is the practice of the lead agency to respond to inquiries concerning the Act as expeditiously as possible. Requests for consideration of an interpretive guideline, safe use determination or information letter ahead of its regular order or by a specified date will be considered as circumstances warrant. However, persons or organizations making such requests should consider the time necessary to comply with public notice and hearing requirements specified in these procedures and any additional delay that may result from compliance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), if necessary prior to issuing a guideline or determination. Therefore, no assurance can be given that any request will be processed by the time requested.

### § 12102. Definitions.

The following definitions shall apply to the regulations contained in this article:

(a) The "Act" refers to the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code Section 25249.5 et seq.) which was originally adopted by California voters as Proposition65 on November 4, 1986.

(b) An "interpretive guideline" is a draft regulatory proposal which has been published for the information, comment, and guidance of California businesses, law enforcement agencies and others concerned.

(c) A "safe use determination" is a written statement issued by the lead agency to a person affected by the Act or an authorized representative which interprets and applies the Act to a specific set of facts.

(d) An "information letter" is a statement issued by the lead agency which does no more than call attention to an established interpretation of the Act or a related principle, without applying it to a specific set of facts.

(e) The "lead agency" refers to the Health and Welfare Agency as designated by the Governor in Executive Order D–61–87, dated January 6, 1987.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.12, Health and Safety Code.

HISTORY

1. New section filed 2–24–88; operative 2–26–88 (Register 88, No. 11).

**§ 12103. Interpretive Guideline Request.**

(a) Any interested person may request the lead agency to issue an interpretive guideline concerning any subject related to the Act. A request for interpretive guideline shall contain:

(1) A clear and concise description of the substance or nature of the guideline requested; and

(2) A description of the reason for the request.

(b) Upon receipt of a request for interpretive guideline, the lead agency shall notify the requester in writing of the receipt and provide an estimate of the time required to determine whether an interpretive guideline will be proposed or adopted. Except where the proposed guideline will be considered by the panel of qualified experts referred to in Health and Safety Code Section 25249.8, a decision on the request will normally be made within 60 days. Where the proposed guideline is considered by the panel of qualified experts, a decision will normally be made not later than 30 days after the guideline is considered by the panel.

(c) When appropriate, in the discretion of the lead agency, a request for interpretive guideline may be treated as a request for a safe use determination under these procedures, or the lead agency may issue an information letter to the requester.

(d) All interpretive guidelines issued by the lead agency will be numbered and published either by the lead agency or in the California Regulatory Notice Register.

(e) Within a reasonable time after an interpretive guideline is published pursuant to paragraph (d), the lead agency may rescind the interpretive guideline, propose that it be formally adopted as originally published, or modify it and either republish it as an interpretive guideline for further comment or propose formal regulatory adoption of the modified interpretive guideline. Nothing in this section shall preclude the lead agency from making proposals for formal regulatory adoption which have not been published as interpretive guidelines.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.12, Health and Safety Code.

HISTORY

1. New section filed 2–24–88; operative 2–26–88 (Register 88, No. 11).

**§ 12104. Safe Use Determinations.**

(a) As a part of its overall responsibility to provide guidance to persons or organizations that are or may be affected by the Act, the lead agency will consider the applicability of the Act or the exemptions specified in the Act to business activities or prospective business activities. A safe use determination issued by the lead agency represents the state's best judgment concerning the application of the Act to the particular facts presented in the request. A safe use determination is advisory only. It does not affect the authority of the Attorney General, district attorneys, certain city attorneys and any other person in the public interest to prosecute violations of the Act pursuant to Section 25249.7 nor does it affect the responsibility of courts to interpret the Act and apply the provisions of the Act to particular facts.

(b) Safe use determinations will not be issued under the following circumstances:

(1) Where the subject matter of a request for safe use determination is at issue in a civil or criminal case pending in any court.

(2) Where the individual or organization requesting the safe use determination is not directly required to enforce or comply with the provisions of the Act; provided, however, where two or more businesses which are members of the same trade association share a business practice which may be the subject matter of a request for a safe use determination, the request may be made by the trade association on behalf of such members.

(3) Where the request for determination concerns compliance with laws other than the Act, or with regulations, permits, requirements or orders of any federal, state or local agency. For example, questions concerning whether chemical discharges comply with the Water Code, state regulations and waste discharge requirements should be addressed to the appropriate Regional Water Quality Control Board.

(4) Where the request for determination does not involve a current or planned activity of the requester. Safe use determination will not be issued concerning hypothetical situations or on each of several alternative plans in a proposed activity.

(5) Where, in the discretion of the lead agency, issuance of a safe use determination will not further the public interest, or is otherwise inappropriate under the circumstances presented in or related to a particular request for safe use determination. For example, where the subject matter of the request is at issue in an administrative proceeding before a government agency or does not concern a chemical listed pursuant to Health and Safety Code Section 25249.8.

(c) A request for a safe use determination shall be submitted in writing to the lead agency and shall contain the following:

(1) A complete statement of all relevant facts related to the activity for which the safe use determination is requested. Such facts include the names and addresses of all interested parties, a description of the business reason for the activity and a carefully detailed description of the activity.

(2) True copies of any contracts, agreements, instruments, reports, analyses or other documents directly related to the activity for which the safe use determination is requested and to the applicability of the Act to the activity.

(3) A clear statement of the issue or issues on which a safe use determination is sought.

(4) If the determination request includes references to a specific chemical, the request should include the chemical name and the Chemical Abstract Services (CAS) Registry Number, if applicable.

(5) If the activity for which the safe use determination is sought is only one step of a larger integrated process, the description of the activity shall include a description of the entire process.

(6) If the requester is contending for a particular result in the determination, the request shall include an explanation of the grounds for the contention together with an identification of any relevant authorities which support such view.

(7) If the request for safe use determination contains any information which the requester claims should not be available for public inspection under the Public Records Act (Government Code Section 6250 et seq.), the request shall specifically identify the information and the basis for the claim.

(A) If the request for determination contains information which the requester claims should not be available for public inspection, it shall be accompanied by a copy of the request and any supporting documents on which shall be indicated, by the use of brackets, the material which the requester contends should be deleted.

(B) All requests for safe use determination shall be open for public inspection except as otherwise specifically identified by the requester under this section. If the lead agency determines that information which the requester claims should not be available for public inspection must be released to the public under the Public Records Act, it will promptly notify the requester by telephone or in writing of this determination and provide a reasonable opportunity for the requester to submit additional justification for the claim or to contest the determination in an appropriate proceeding.

(8) If the requester claims that fees or other charges for the safe use determination should be waived, the request shall include an explanation of the basis for the claim.

(9) A statement concerning whether to the best of the requester's knowledge the subject matter of the request is:

(A) An issue in a civil or criminal case pending in any court.

(B) An issue in any administrative proceeding pending before a federal, state or local agency.

(C) The subject of a notice of violation to the Attorney General, a district attorney or a city attorney as described in Health and Safety Code Section 25249.7(d).

(10) The signature of the person making the request for determination. Where the request is made by an authorized representative for an individual or organization, the request shall indicate the source of the authority to make the request.

(d) Each request for a safe use determination shall be accompanied by a nonrefundable processing fee of $500. In addition, the requester shall be assessed a charge in the amount of any costs to the lead agency or other state agency which are necessarily incurred in considering the request and which exceed $500. Such additional assessment shall be made only after the requester has been provided an estimate of the amount, has elected to proceed with the request for safe use determination and has agreed to pay the additional assessment. All or part of the processing fee or other charges assessed pursuant to this section may be waived if the lead agency determines that payment of the fee would present a hardship to the requester or that it is otherwise in the public interest to proceed with the request without payment of such fees or charges.

(e) Any request for safe use determination that does not comply with these procedures will be acknowledged in writing within 30 days of receipt by the lead agency, with an indication of the requirements that have not been met. If the request lacks essential information, the requester will be advised that the request will be closed if the additional information is not received within 30 days. If the information is received after the request is closed, the request will be reopened and treated as a new request as of the date of receipt.

(f) A request for safe use determination that appears to comply with these procedures will be acknowledged in writing within 30 days of receipt by the lead agency and a public notice of the receipt of the request will be published in the California Notice Register and sent to interested persons. The public notice will include the text or a summary of the request as appropriate. It will advise interested parties that they can comment on the request in writing or in person at a public hearing which shall be held on a date not less than 30 days after the notice is published.

(g) At any time while a request for a safe use determination is pending, the lead agency or any other state agency that is considering the request may ask for any additional information or explanation from the requester as necessary to complete a consideration of the request.

(h) After considering the request, any comments of the public received in writing or at the public hearing, and the comments of any other state agencies that have considered the request, the lead agency shall in response to the request:

(1) Issue a safe use determination.

(2) Decline to issue a safe use determination because the facts are insufficient to clearly establish the basis for the requested determination or for any other reason.

(3) Issue an information letter to the requester.

(4) Issue an interpretive guideline.

(i) The lead agency's response to the request shall be sent to the requester and the text or a summary of the response shall be published in the California Notice Register and sent to interested persons, including any person who submitted comments on the request.

(j) Safe use determinations issued by the lead agency are limited to the particular facts on which they are based and they reflect the lead agency's view of the best interpretation of the Act and the state of scientific knowledge at the time they are issued. Whenever the issuance of a safe use determination requires the performance by a state agency of a risk assessment of the carcinogenicity or reproductive toxicity of a chemical, such assessment shall be performed pursuant to the methodologies adopted by the lead agency. A safe use determination found to be in error or not in accord with the best interpretation of the Act or the current state of scientific knowledge may be modified or revoked. Modification or revocation of a safe use determination may be effected by a notice to the individual or organization that requested the ruling along with notice in the California Notice Register or by the issuance of an interpretive guideline.

(k) A safe use determination shall be issued to a particular individual or organization with respect to the application of particular provisions of the Act to particular facts. Determinations are not intended to affect other individuals or organizations, or other activities of the requester.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.10 and 25249.12, Health and Safety Code.

HISTORY

1: New section filed 2–24–88; operative 2–26–88 (Register 88, No. 11).

## Article 2. Definitions

### § 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:

[The next page is 185.]

(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 that 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) Discharge or Release to Water or Land.

(1) The term "water" includes both surface and ground water.

(2) "Probably will pass into any source of drinking water" refers to a discharge or release which more likely than not will pass into any source of drinking water.

(3) "Discharge or release into water or onto or into land" includes a discharge or release to air that is directly and immediately deposited into water or onto land.

(4) Except as provided in paragraphs (5) and (6), "discharge or release into water or onto or into land" includes the direct or indirect transfer by any person in the course of doing business of any listed chemical to any person within the meaning of Health and Safety Code Section 25249.11 (a) for the purpose of discharging or releasing the chemical to land or water in a manner which, if committed by the transferor, would violate Health and Safety Code Section 25249.5.

(5) "Discharge or release into water or onto or into land" does not include the sale, exchange or other transfer of a chemical to a solid waste disposal facility as defined in Sections 66714 and 66719 of the Government Code, or a hazardous waste facility as defined in Health and Safety Code Section 25117.1 provided that the disposal to such facility complies with all applicable state and federal statutes, rules, regulations, permits, requirements and orders. "Sale, exchange or other transfer," as used in this paragraph, does not include disposal to a facility owned or operated by the transferor.

(6) "Discharge or release into water or onto or into land" does not include the sale, exchange or other transfer of a chemical to any treatment works as defined in 33 United States Code Section 1292 provided that the discharge or release to such treatment works complies with all applicable standards and limitations imposed, and permits required, under federal law or an approved state program. "Sale, exchange or other transfer," as used in this paragraph, does not include disposal to a facility owned or operated by the transferor.

(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) Threatened Illegal Discharges.

A "threatened illegal discharge" means the creation of a condition or the taking of an action which is intended to or will foreseeably create a substantial probability that an illegal discharge will occur.

(h) Substantial Injury.

The term "substantial injury" means a real and immediate physical injury or a resulting adverse physical condition of a substantial nature to one or more persons.

(i) General Public Knowledge.

The term "general public knowledge" means knowledge which has been disseminated to the general public, including information in newspapers of general circulation or radio or television reports in the geographic area affected by the discharge. In order to demonstrate general public knowledge, it shall not be necessary to prove that any members of the public have actually acquired such knowledge but only that the information has been disseminated.

(j) For purposes of this chapter, "Act" means the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code Sections 25249.5, et seq.).

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

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25180.7, 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. Amendment of subsection (e) and new subsections (j) and (k) refiled 2–21–89 as an emergency; operative 2–24–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–26–89. For prior history, see Register 88, No. 47.
2. Amendment of subsection (e) and new subsections (j) and (k) refiled 6–19–89 as an emergency; operative 6–26–89 (Register 89, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–24–89.
3. Certificate of Compliance as to 6–19–89 order transmitted to OAL 10–20–89 and filed 11–20–89 (Register 89, No. 48).

## Article 3. Science Advisory Board: Carcinogen Identification Committee and Developmental and Reproductive Toxicant (DART) Identification Committee

### § 12301. Definitions.

(a) The "Committees" refer to the Carcinogen Identification Committee and the Developmental and Reproductive Toxicant (DART) Identification Committee of the Office of Environmental Health Hazard Assessment's Science Advisory Board.

(1) The members of the "Carcinogen Identification Committee" hereinafter referred to as the "Carcinogen Committee" shall be the "state's qualified experts" as the term is used in Health and Safety Code Section 25249.8, to render an opinion on whether specific chemicals have been clearly shown to cause cancer.

(2) The members of the "Developmental and Reproductive Toxicant (DART) Identification Committee", hereinafter referred to as the "DART Committee" shall be the "state's qualified experts" as the term

is used in Health and Safety Code Section 25249.8, to render an opinion on whether specific chemicals have been clearly shown to cause reproductive toxicity.

(b) The "Act" refers to the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code Section 25249.5 et seq.) which was originally adopted by California voters as Initiative Measure Proposition 65 on November 4, 1986.

(c) The "lead agency" refers to the Office of Environmental Health Hazard Assessment as designated by the Governor in Executive Order W-15-91, dated July 17, 1991.

(d) The "Director" refers to the Director of the Office of Environmental Health Hazard Assessment.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.12 and 25249.8, Health and Safety Code.

HISTORY

1. New section filed 2-24-88; operative 2-26-88 (Register 88, No. 11).
2. Amendment of article heading, subsections (a) and (c), and adoption of subsection (d) filed 11-1-93 as an emergency; operative 11-1-93 (Register 93, No. 45). A Certificate of Compliance must be transmitted to OAL by 3-1-94 or emergency language will be repealed by operation of law on the following day.
3. Amendment of article heading, subsections (a) and (c), and adoption of subsection (d) refiled 2-25-94 as an emergency; operative 2-25-94 (Register 94, No. 8). A Certificate of Compliance must be transmitted to OAL by 6-27-94 or emergency language will be repealed by operation of law on the following day.
4. Amendment of article heading, subsections (a) and (c), and adoption of subsection (d) refiled 6-16-94 as an emergency; operative 6-27-94 (Register 94, No. 24). A Certificate of Compliance must be transmitted to OAL by 10-25-94 or emergency language will be repealed by operation of law on the following day.
5. Amendment of article heading, subsections (a) and (c), and adoption of subsection (d) refiled 10-24-94 as an emergency; operative 10-25-94 (Register 94, No. 43). A Certificate of Compliance must be transmitted to OAL by 2-22-95 or emergency language will be repealed by operation of law on the following day.
6. Certificate of Compliance as to 10-24-94 order including amendment of Article 3 heading and subsection (a) and new subsections (a)(1)-(2) transmitted to OAL 2-22-95 and filed 4-5-95 (Register 95, No. 14).

### § 12302. Science Advisory Board.

(a) There are created in the Office of Environmental Health Hazard Assessment two Committees of the Science Advisory Board, the Carcinogen Committee and the DART Committee defined in paragraphs (1) and (2), respectively, of subsection (a) of Section 12301 of this Article, to advise and assist the Governor and the Director of the lead agency designated by the Governor in the implementation of Health and Safety Code Section 25249.8.

(b)(1) The members of the Carcinogen Identification Committee shall be composed of no less than seven (7) members and no greater than eleven (11) members, and shall include experts from among the following areas of specialization: epidemiology, oncology, pathology, medicine, public health, biostatistics, biology, toxicology, and related fields.

(2) The members of the Developmental and Reproductive Toxicant (DART) Identification Committee shall be composed of no less than seven (7) members and no greater than eleven (11) members, and shall include experts from among the following areas of specialization: epidemiology, developmental toxicology, reproductive toxicology, teratology, medicine, public health, biostatistics, biology, toxicology, and related fields.

(3) The members of the Committees shall be appointed by the Governor and shall serve at the pleasure of the Governor. Committee members serving on the Carcinogen Committee or the DART Committee on December 1, 1994, shall become members of the Science Advisory Board and shall continue to serve in accordance with their term of office as established below.

Two of the original members shall be chosen for a term of one year, two for a term of two years, two for a term of three years and two for a term of four years. The first term of the three new members of each Committee resulting from the expansion of the Committee to eleven members shall be reduced by the Governor as necessary so that the term of no more than three members shall expire in any given year. Thereafter the terms shall be for a period of four years, except that any person chosen to fill a vacancy shall be appointed only for the unexpired term of the member whom he or she succeeds. Members of both committees shall be eligible for reappointment.

(c) The Carcinogen Committee and the DART Committee shall meet not less than once in any calendar year. The Governor shall designate from among the members of each Committee respective Chairpersons who will call and preside over Committee meetings, and shall designate an Executive Secretary who shall be a state employee who has expertise in one or more of the areas of specialization listed in subsection (b). Each Chairperson, with the consent of the other Committee members, shall designate from among the respective Committee members such subcommittees as may be appropriate in fully discharging the responsibilities of that Committee.

(d)(1) Except as otherwise expressly authorized by statute, all meetings of the Committees, and all subcommittee meetings shall be open to the public and convened only after reasonable public notice of the meeting, including the date, time, location and agenda of items of business to be transacted or discussed, has been provided.

(2) All correspondence to or from the Committees, or any subcommittee shall be available for public inspection as provided in the Public Records Act.

(e) Members of either of the two Committees may be asked to provide advice and counsel both at formally convened Committee meetings and other subcommittee meetings and individually in response to written materials submitted to them by the lead agency, the Executive Secretary, or the Governor. Each of the two Committees shall act, as a body in making recommendations to the Governor or the lead agency.

(f) A quorum of any Committee shall be a majority of the members appointed to the Committee. An affirmative vote of the majority of the appointed members shall be required for any action of each Committee. A vacancy on either committee shall not impair the right of the remaining members to exercise all powers of the committees.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.8, Health and Safety Code.

HISTORY

1. New section filed 2-24-88; operative 2-26-88 (Register 88, No. 11).
2. Amendment filed 11-1-93 as an emergency; operative 11-1-93 (Register 93, No. 45). A Certificate of Compliance must be transmitted to OAL by 3-1-94 or emergency language will be repealed by operation of law on the following day.
3. Amendment refiled 2-25-94 as an emergency; operative 2-25-94 (Register 94, No. 8). A Certificate of Compliance must be transmitted to OAL by 6-27-94 or emergency language will be repealed by operation of law on the following day.
4. Amendment refiled 6-16-94 as an emergency; operative 6-27-94 (Register 94, No. 24). A Certificate of Compliance must be transmitted to OAL by 10-25-94 or emergency language will be repealed by operation of law on the following day.
5. Amendment refiled 10-24-94 as an emergency; operative 10-25-94 (Register 94, No. 43). A Certificate of Compliance must be transmitted to OAL by 2-22-95 or emergency language will be repealed by operation of law on the following day.
6. Editorial correction of section heading and subsections (d)(1) and (2) (Register 94, No. 43).
7. Certificate of Compliance as to 10-24-94 order including amendment of section transmitted to OAL 2-22-95 and filed 4-5-95 (Register 95, No. 14).

### § 12303. Compensation.

Members of the Committees shall be entitled to reimbursement for actual and necessary expenses incurred while attending meetings or otherwise carrying out the duties of their respective committees. In addition, members of the Committees shall be entitled to compensation for time spent attending Committee meetings and on the other actual and necessary work of the Committee as determined by the lead agency.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.8, Health and Safety Code.

HISTORY

1. New section filed 2-24-88; operative 2-26-88 (Register 88, No. 11).
2. Amendment filed 11-1-93 as an emergency; operative 11-1-93 (Register 93, No. 45). A Certificate of Compliance must be transmitted to OAL by 3-1-94 or emergency language will be repealed by operation of law on the following day.

3. Amendment refiled 2–25–94 as an emergency; operative 2–25–94 (Register 94, No. 8). A Certificate of Compliance must be transmitted to OAL by 6–27–94 or emergency language will be repealed by operation of law on the following day.
4. Amendment refiled 6–16–94 as an emergency; operative 6–27–94 (Register 94, No. 24). A Certificate of Compliance must be transmitted to OAL by 10–25–94 or emergency language will be repealed by operation of law on the following day.
5. Amendment refiled 10–24–94 as an emergency; operative 10–25–94 (Register 94, No. 43). A Certificate of Compliance must be transmitted to OAL by 2–22–95 or emergency language will be repealed by operation of law on the following day.
6. Certificate of Compliance as to 10–24–94 order including amendment of section transmitted to OAL 2–22–95 and filed 4–5–95 (Register 95, No. 14).

### § 12304. Financial Disclosure.

Upon appointment and annually thereafter, Committee members shall, consistent with Sections 81000 through 91015 of the Government Code and Title 2 California Code of Regulations, Division 6, Chapters 1 through 10, make a public disclosure on forms provided of investments in, income from or business positions in any partnership, corporation or other entity that imports, manufactures, distributes, sells, buys or uses chemicals that are or may be considered carcinogens or reproductive toxicants. Such disclosure made upon appointment shall cover the twelve month period immediately prior to the date of appointment. Committee members shall, in addition to the requirements of Sections 81000 through 91015 of the Government Code and Title 2 CCR, Division 6, Chapters 1 through 10, also provide a description of funding sources for all professional activities undertaken during the twelve months immediately prior to their appointment, and annually thereafter during their service on the Committee. In order to vote on an official action of a Committee, Committee members must be in compliance with Sections 81000 through 91015 of the Government Code and Title 2 CCR, Division 6, Chapters 1 through 10.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.8, Health and Safety Code.

HISTORY

1. New section filed 2–24–88; operative 2–26–88 (Register 88, No. 11).
2. Amendment filed 11–1–93 as an emergency; operative 11–1–93 (Register 93, No. 45). A Certificate of Compliance must be transmitted to OAL by 3–1–94 or emergency language will be repealed by operation of law on the following day.
3. Amendment refiled 2–25–94 as an emergency; operative 2–25–94 (Register 94, No. 8). A Certificate of Compliance must be transmitted to OAL by 6–27–94 or emergency language will be repealed by operation of law on the following day.
4. Amendment refiled 6–16–94 as an emergency; operative 6–27–94 (Register 94, No. 24). A Certificate of Compliance must be transmitted to OAL by 10–25–94 or emergency language will be repealed by operation of law on the following day.
5. Amendment refiled 10–24–94 as an emergency; operative 10–25–94 (Register 94, No. 43). A Certificate of Compliance must be transmitted to OAL by 2–22–95 or emergency language will be repealed by operation of law on the following day.
6. Certificate of Compliance as to 10–24–94 order including amendment of section transmitted to OAL 2–22–95 and filed 4–5–95 (Register 95, No. 14).

### § 12305. Duties.

(a) As an advisory body to the Governor and the lead agency, the Carcinogen Identification Committee may undertake the following activities:

(1) Render an opinion, pursuant to subdivision (b) of Section 25249.8 of the Health and Safety Code, as to whether specific chemicals have been clearly shown, through scientifically valid testing according to generally accepted principles, to cause cancer.

(2) Identify bodies which are considered to be authoritative and which have formally identified carcinogens.

(3) Identify specific chemicals that are required by state or federal law to have been tested for potential to cause cancer but which have not been adequately tested.

(4) Review or propose standards and procedures for determining carcinogenicity of chemicals.

(5) Review or propose standards, procedures and definitions related to the implementation, administration or interpretation of the Act in support of the duties specified in the Health and Safety Code Section 25249.8 and upon request by the lead agency.

(b) As an advisory body to the Governor and the lead agency, the DART Committee may undertake the following activities:

(1) Render an opinion, pursuant to subdivision (b) of Section 25249.8 of the Health and Safety Code, as to whether specific chemicals have been clearly shown, through scientifically valid testing according to generally accepted principles, to cause reproductive toxicity.

(2) Identify bodies which are considered to be authoritative and which have formally identified reproductive toxicants.

(3) Identify specific chemicals that are required by state or federal law to have been tested for potential to cause reproductive toxicity but which have not been adequately tested.

(4) Review or propose standards and procedures for determining reproductive toxicity of chemicals.

(5) Review or propose standards, procedures and definitions related to the implementation, administration or interpretation of the Act in support of the duties specified in Health and Safety Code Section 25249.8 and upon request by the lead agency.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.8, Health and Safety Code.

HISTORY

1. New section filed 2–24–88; operative 2–26–88 (Register 88, No. 11).
2. Amendment filed 11–1–93 as an emergency; operative 11–1–93 (Register 93, No. 45). A Certificate of Compliance must be transmitted to OAL by 3–1–94 or emergency language will be repealed by operation of law on the following day.
3. Amendment refiled 2–25–94 as an emergency; operative 2–25–94 (Register 94, No. 8). A Certificate of Compliance must be transmitted to OAL by 6–27–94 or emergency language will be repealed by operation of law on the following day.
4. Amendment refiled 6–16–94 as an emergency; operative 6–27–94 (Register 94, No. 24). A Certificate of Compliance must be transmitted to OAL by 10–25–94 or emergency language will be repealed by operation of law on the following day.
5. Amendment refiled 10–24–94 as an emergency; operative 10–25–94 (Register 94, No. 43). A Certificate of Compliance must be transmitted to OAL by 2–22–95 or emergency language will be repealed by operation of law on the following day.
6. Editorial correction of subsection (b)(2) (Register 94, No. 43).
7. Certificate of Compliance as to 10–24–94 order including amendment of subsections (a)(1), (a)(5)–(b)(1), and (b)(5) transmitted to OAL 2–22–95 and filed 4–5–95 (Register 95, No. 14).

### § 12306. Chemicals Formally Identified by Authoritative Bodies.

(a) Pursuant to Health and Safety Code section 25249.8(b), a chemical is known to the state to cause cancer or reproductive toxicity if a body is considered to be authoritative by the state's qualified experts and the lead agency has determined that the body has formally identified the chemical as causing cancer or reproductive toxicity, as described in this section.

(b) A "body considered to be authoritative" is an agency or formally organized program or group which utilizes one of the methods set forth in subsection (c), paragraph (1) for the identification of chemicals, and which the Carcinogen Committee or the DART Committee has identified as having expertise in the identification of chemicals as causing cancer or reproductive toxicity. For purposes of this section, "authoritative body" means either a "body considered to be authoritative" in the identification of chemicals as causing cancer by the Carcinogen Committee or a "body considered to be authoritative" in the identification of chemicals as causing reproductive toxicity by the DART Committee. The Carcinogen Committee and the DART Committee shall have the authority to revoke or rescind any determination that a body is authoritative on the grounds that the respective Committee no longer considers the body to have expertise in the identification of chemicals as causing cancer or reproductive toxicity, respectively in which case chemicals listed pursuant to this section prior to the effective date of the revocation shall remain on the list. Nothing in this section shall be construed to limit or otherwise interfere with such authority.

(c) The lead agency shall determine which chemicals have been formally identified by an authoritative body as causing cancer or reproductive toxicity.

(d) For purposes of this section a chemical is "formally identified" by an authoritative body when the lead agency determines that:

(1) the chemical has been included on a list of chemicals causing cancer or reproductive toxicity issued by the authoritative body; or is the subject of a report which is published by the authoritative body and which concludes that the chemical causes cancer or reproductive toxicity; or has otherwise been identified as causing cancer or reproductive toxicity by the authoritative body in a document that indicates that such identification is a final action; and

(2) the list, report, or document specifically and accurately identifies the chemical, and has been:

(A) Reviewed by an advisory committee in a public meeting, if a public meeting is required, or

(B) Made subject to public review and comment prior to its issuance, or

(C) Published by the authoritative body in a publication, such as, but not limited to, the federal register for an authoritative body which is a federal agency, or

(D) Signed, where required, by the chief administrative officer of the authoritative body or a designee, or

(E) Adopted as a final rule by the authoritative body, or

(F) Otherwise set forth in an official document utilized by the authoritative body for regulatory purposes.

(e) For purposes of this section, "as causing cancer" means that either of the following criteria has been satisfied:

(1) Sufficient evidence of carcinogenicity exists from studies in humans. For purposes of this paragraph, "sufficient evidence" means studies in humans indicate that there is a causal relationship between the chemical and cancer.

(2) Sufficient evidence of carcinogenicity exists from studies in experimental animals. For purposes of this paragraph, "sufficient evidence" means studies in experimental animals indicate that there is an increased incidence of malignant tumors or combined malignant and benign tumors in multiple species or strains, in multiple experiments (e.g., with different routes of administration or using different dose levels), or, to an unusual degree, in a single experiment with regard to high incidence, site or type of tumor, or age at onset.

(f) The lead agency shall find that a chemical does not satisfy the definition of "as causing cancer" if scientifically valid data which were not considered by the authoritative body clearly establish that the chemical does not satisfy the criteria of subsection (e), paragraph (1) or subsection (e), paragraph (2).

(g) For purposes of this section, "as causing reproductive toxicity" means that either of the following criteria have been satisfied:

(1) Studies in humans indicate that there is a causal relationship between the chemical and reproductive toxicity, or

(2) Studies in experimental animals indicate that there are sufficient data, taking into account the adequacy of the experimental design and other parameters such as, but not limited to, route of administration, frequency and duration of exposure, numbers of test animals, choice of species, choice of dosage levels, and consideration of maternal toxicity, indicating that an association between adverse reproductive effects in humans and the toxic agent in question is biologically plausible.

(h) The lead agency shall find that a chemical does not satisfy the definition of "as causing reproductive toxicity" if scientifically valid data which were not considered by the authoritative body clearly establish that the chemical does not satisfy the criteria of subsection (g), paragraph (1) or subsection (g), paragraph (2).

(i) At least 60 days prior to adding a chemical determined to have been formally identified by an authoritative body as causing cancer or reproductive toxicity to the list of chemicals known to the state to cause cancer or reproductive toxicity, the lead agency shall cause to be published in the California Regulatory Notice Register a notice identifying the authoritative body and the chemical, and stating the lead agency's intention to cause the chemical to be added to the list. Copies of the notice shall be provided to the Carcinogen Committee or the DART Committee, as appropriate, to permit the appropriate Committee at least 30 days to review and comment on the proposed action. Within 30 days following the publication of the notice, interested parties, including any member of the appropriate Committee, shall submit to the lead agency their written objections to the addition of the chemical to the list of chemicals known to the state to cause cancer or reproductive toxicity, along with any supporting documentation. Objections shall be made on the basis that there is no substantial evidence that the criteria identified in subsection (e) or in subsection (g) have been satisfied. The lead agency shall review such objections. If the lead agency finds that there is no substantial evidence that the criteria identified in subsection (e) or in subsection (g) have been satisfied, the lead agency shall refer the chemical to the appropriate Committee to determine whether, in the Committee's opinion, the chemical has been clearly shown through scientifically valid testing according to generally accepted principles to cause cancer or reproductive toxicity.

(j) Subsequent to the addition of a chemical determined to have been formally identified by an authoritative body as causing cancer or reproductive toxicity to the list of chemicals known to the state to cause cancer or reproductive toxicity, the lead agency shall reconsider its determination that the chemical has been formally identified as causing cancer or reproductive toxicity if the lead agency finds:

(1) there is no substantial evidence that the criteria identified in subsection (e) or subsection (g) have been satisfied, or

(2) the chemical is no longer identified as causing cancer or reproductive toxicity by the authoritative body.

Reconsideration may be initiated by the lead agency on its own motion, or on a request from an interested party, including any member of the appropriate Committee. The lead agency shall refer chemicals under reconsideration pursuant to this subsection to the appropriate Committee for a recommendation concerning whether the chemical should continue to be included on the list of chemicals known to the state to cause cancer or reproductive toxicity. Pending such reconsideration, the chemical shall remain on the list.

(k) The Carcinogen Committee or the DART Committee may condition any determination that a body is considered to be authoritative upon the subsequent application of the controls set forth in this section to the determination of which chemicals have been formally identified by the body as causing cancer or reproductive toxicity. In the event that this section or any portion thereof is found to be invalid by any court of competent jurisdiction, the Carcinogen Committee or the DART Committee may determine that such invalidation constitutes a failure of the condition. Upon finding such failure of condition, the determination that the body is authoritative shall be deemed to be revoked. Chemicals which the lead agency has determined have been formally identified by the body as causing cancer or reproductive toxicity pursuant to the controls set forth in this section and which have been placed upon the list of chemicals known to the state to cause cancer or reproductive toxicity prior to such revocation shall remain on the list.

(l) The following have been identified as authoritative bodies for purposes of this section for the identification of chemicals as causing reproductive toxicity:

(1) International Agency for Research on Cancer solely as to transplacental carcinogenicity

(2) National Institute for Occupational Safety and Health

(3) U. S. Environmental Protection Agency

(4) U. S. Food and Drug Administration

(m) The following have been identified as authoritative bodies for the identification of chemicals as causing cancer:

(1) International Agency for Research on Cancer

(2) National Institute for Occupational Safety and Health

(3) National Toxicology Program

(4) U. S. Environmental Protection Agency

(5) U. S. Food and Drug Administration

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.8 and 25249.12, Health and Safety Code.

HISTORY

1. New section filed 10–30–89 as an emergency; operative 10–30–89 (Register 89, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–27–90.
2. Change without regulatory effect filed 10–31–89 pursuant to section 100, Title 1, California Code of Regulations (Register 89, No. 44).
3. Certificate of Compliance as to 10–30–89 order including amendment of subsections (c) – (l) transmitted to OAL 2–27–90 and filed 3–29–90 (Register 90, No. 16).
4. Amendment of subsection (l) submitted to OAL for printing only pursuant to Government Code section 11343.8 (Register 90, No. 28).
5. Editorial correction of printing error relettering subsection (d) (Register 90, No. 45).
6. Certificate of Compliance as to 10–24–94 order including amendment of section transmitted to OAL 2–22–95 and filed 4–5–95 (Register 95, No. 14).
7. Amendment of subsections (*l*)–(*l*)(1), repealer of subsection (*l*)(3), subsection renumbering, and new subsections (m)–(m)(5) filed 4–9–99; adopted and effective 7–27–98; changes not considered to be a regulation for the purposes of the Administrative Procedure Act pursuant to Health and Safety Code section 25249.8(e); printed pursuant to Government Code section 11343.8 (Register 99, No. 15).

## Article 4. Discharge

### § 12401. Discharge of Water Containing a Listed Chemical at Time of Receipt.

(a) Whenever a person otherwise responsible for the discharge or release receives water containing a listed chemical 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 primary drinking water standards and the chemical is the result of treatment of the water in order to achieve such compliance; the person does not "discharge" or "release" within the meaning of the Act to the extent that the person can show that the listed chemical was contained in the water received. "Discharge or release" shall apply only to that amount of the listed chemical derived from sources other than the drinking water.

(b) Whenever a person otherwise responsible for the discharge or release receives water containing a listed chemical from a source other than a source specified in subdivision (a) the person does not "discharge" or "release" within the meaning of the Act to the extent that the person can show that the listed chemical was contained in the water received, and "discharge or release" shall apply only to that amount of the listed chemical derived from sources other than the water, provided that:

(1) The water is returned to the same source of water supply, or

(2) The water meets all primary drinking water standards for the listed chemical or, where there is no primary drinking water standard established for the listed chemical, the water shall not contain a significant amount of the chemical.

(c) Stormwater runoff from a place of doing business containing a listed chemical, the presence of which is not the direct and immediate result of the business activities conducted at the place from which the runoff flows, is not a "discharge" or "release" within the meaning of the Act. For purposes of this paragraph, "business activities" does not include parking lots.

(d) The movement of naturally occurring chemicals as the result of the application, unavoidable runoff, or percolation of agricultural irrigation water is not a "discharge" or "release" within the meaning of section 25249.5 of the Health and Safety Code. For purposes of this paragraph, "naturally occurring chemicals" means chemicals present in the soil solely as a result of natural geologic processes.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 10–17–88 as an emergency; operative 10–17–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–14–89.
2. Certificate of Compliance filed 11–15–88 (Register 89, No. 30).

### § 12403. Discharges from Hazardous Waste Facilities.

(a) For a discharge or release of a listed chemical from a low–level radioactive waste disposal facility licensed pursuant to Chapter 7.6 of Division 20 Commencing with Section 25800) of the Health and Safety Code, a solid waste disposal facility" as defined in Government Code section 66714, a solid waste "disposal site" as defined in Government Code section 66714.1 or a hazardous waste "disposal site" as defined in Health and Safety Code section 25114, it shall be presumed that the chemical probably will not pass into any source of drinking water for purposes of Health and Safety Code section 25249.5, provided that the operator of the facility or site can show that the facility or site is subject to and in compliance with requirements of state or federal statutes, regulations, permits and orders adopted to avoid contamination of surface or groundwater.

(b) The presumption in subsection (a) may be rebutted by any admissible evidence, including, but not limited to, that compliance with the same or substantially the same requirements of state or federal statutes, regulations, permits and orders adopted to avoid contamination of surface or groundwater has failed to prevent surface or groundwater contamination at similar facilities or sites under similar circumstances.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.5, Health and Safety Code.

HISTORY

1. New section filed 10–21–88 as an emergency; operative 10–27–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–24–89.
2. New section refiled 2–21–89 as an emergency; operative 2–24–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–26–89.
3. New section, with amendment of subsection (a) adding certain low–level radioactive waste disposal facilities, refiled 6–5–89 as an emergency; operative 6–26–89 (Register 89, No. 24). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–24–89.
4. Certificate of Compliance as to 6–5–89 order transmitted to OAL 10–23–89 and filed 11–22–89 (Register 89, No. 48).

### § 12405. Discharge of an Economic Poison.

For a discharge or release of a listed chemical which is an active ingredient, other specified ingredient, or degradation product of an economic poison as defined in The Pesticide Contamination Prevention Act of 1985, Article 15 of Chapter 2 of Division 7 (commencing with section 13141) of the Food and Agricultural Code, if the person responsible for the application can show that the registrant of the economic poison has completely and adequately satisfied all of the data submission requirements of section 13143(a) of the Food and Agricultural Code and that the economic poison has not been placed on the Groundwater Protection List described in section 13145 of the Food and Agricultural Code and that the application is otherwise in compliance with the Pesticide Contamination Prevention Act of 1985 and all regulations promulgated thereunder, then it shall be presumed that the chemical probably will not pass into any source of drinking water for purposes of Health and Safety Code section 25249.5. For purposes of this section only, the person responsible for the application may rely upon information regarding a registrant's compliance with section 13143(a), Food and Agricultural Code, which is obtained from the State Department of Food and Agriculture through the office of a county agriculture commissioner.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.5, Health and Safety Code.

HISTORY

1. New section refiled 6–5–89 as an emergency; operative 6–26–89 (Register 89, No. 24). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–24–89. For prior history, see Register 89, No. 10.

2. New section refiled 10–19–89 as an emergency; operative 10–24–89 (Register 89, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–21–90.

3. Certificate of Compliance as to 10–19–89 order including amendment transmitted to OAL 1–5–90 and filed 1–23–90 (Register 90, No. 5).

## Article 5. Extent of Exposure

### § 12501. Exposure to a Naturally Occurring Chemical in a Food.

(a) Human consumption of a food shall not constitute an "exposure" for purposes of Health and Safety Code Section 25249.6 to a listed chemical in the food to the extent that the person responsible for the contact can show that the chemical is naturally occurring in the food.

(1) For the purposes of this section, a chemical is "naturally occurring" if it is a natural constituent of a food, or if it is present in a food solely as a result of absorption or accumulation of the chemical which is naturally present in the environment in which the food is raised, or grown, or obtained; for example, minerals present in the soil solely as a result of natural geologic processes, or toxins produced by the natural growth of fungi.

(2) The "naturally occurring" level of a chemical in a food may be established by determining the natural background level of the chemical in the area in which the food is raised, or grown, or obtained, based on reliable local or regional data.

(3) A chemical is naturally occurring only to the extent that the chemical did not result from any known human activity. Where a food contains a chemical, in part naturally occurring and in part added as a result of known human activity, "exposure" can only occur as to that portion of the chemical which resulted from such human activity. For purposes of this section, "human activity" does not include sowing, planting, irrigation, or plowing or other mechanical preparation of soil for agricultural purposes; but does include the addition of chemicals to irrigation water applied to soil or crops.

(4) Where a chemical contaminant can occur naturally in a food, the chemical is naturally occurring only to the extent that it was not avoidable by good agricultural or good manufacturing practices. The producer, manufacturer, distributor, or holder of the food shall at all times utilize quality control measures that reduce natural chemical contaminants to the "lowest level currently feasible," as this term is used in the Code of Federal Regulations, Title 21, Section 110.110, subdivision (c) (1988).

(b) A person otherwise responsible for an exposure to a listed chemical in a consumer product, other than food, does not "expose" an individual within the meaning of Section 25249.6, to the extent that the person can show that the chemical was a naturally occurring chemical in food, and the food was used in the manufacture, production, or processing of the consumer product. Where a consumer product contains a listed chemical, and the source of the chemical is in part from a naturally occurring chemical in food and in part from other sources, "exposure" can only occur as to that portion of the chemical from other sources.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.6, Health and Safety Code.

HISTORY

1. New section refiled 6–19–89 as an emergency; operative 6–22–89 (Register 89, No. 30). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–20–89. For prior history, see Register 89, No. 10.

2. Emergency Section 12501 repealed 7–10–89; repealer operative 8–9–89. New Section 12501 filed 7–10–89; operative 8–9–89 (Register 89, No. 30).

### § 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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.6 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 7–10–89; operative 8–9–89 (Register 89, No. 30).

### § 12503. Exposure to Water.

A person otherwise responsible for an exposure to a listed chemical does not "expose" an individual within the meaning of Health and Safety Code Section 25249.6 to the extent that the person can show that the listed chemical was contained in water which the person moved or which was handled in the manner described in Section 12401. Nothing in this section shall be interpreted to affect the responsibility for an exposure which arises from any activity other than that described in Section 12401.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.6 and 25249.11, Health and Safety Code.

HISTORY

1. New section refiled 6–19–89 as an emergency; operative 6–22–89 (Register 89, No. 30). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–20–89. For prior history, see Register 89, No. 10.

2. Emergency Section 12503 repealed 7–10–89; repealer operative 8–9–89. New Section 12503 filed 7–10–89; operative 8–9–89 (Register 89, No. 30).

### § 12504. Exposure to Air.

A person otherwise responsible for an exposure to a listed chemical in air does not "expose" an individual within the meaning of Health and Safety Code Section 25249.6 to the extent that the person can show that the listed chemical was contained in air that the person received from the ambient air. Where the source of the listed chemical is in part from the ambient air and in part from other sources, "exposure" does not occur as to that portion of the listed chemical from the ambient air to the extent that the person did not put the listed chemical into the ambient air.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.6, Health and Safety Code.

HISTORY

1. New section filed 7–10–89; operative 8–9–89 (Register 89, No. 30).

### § 12505. Miscellaneous.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.6 and 25249.11, Health and Safety Code.

HISTORY

1. New section refiled 6–19–89 as an emergency; operative 6–22–89 (Register 89, No. 30). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–20–89. For prior history, see Register 89, No. 10.

2. Emergency Section 12505 repealed 7–10–89; repealer operative 8–9–89 (Register 89, No. 30).

## Article 6. Clear and Reasonable Warnings

### § 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. Three–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 sixteenths 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 punctuating 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 fully 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."

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.6 and 25249.11, Health and Safety Code.

HISTORY

1. Amendment of subsection (b) filed 6–7–89 as an emergency; operative 7–1–89 (Register 89, No. 24). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–30–89. For prior history, see Register 88, No. 53.
2. Certificate of Compliance as to 6–7–89 order transmitted to OAL 10–23–89 and filed 11–22–89 (Register 89, No. 48).
3. Editorial correction of printing error in subsection (c)(1)(C) (Register 91, No. 31).

## Article 7. No Significant Risk Levels

### § 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) or 12711 (Levels Based on State or Federal Standards) unless otherwise provided.

(c) The chemicals, routes of exposure and conditions of use specifically listed in this article do not include all chemicals, routes of exposure and conditions of use that pose no significant risk. The fact that a chemical, route of exposure or condition of use does not appear in this article does not mean that it poses a significant risk.

(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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).
6. Amendment of subsection (b)(3)(B) filed 11–16–93; operative 12–16–93 (Register 93, No. 47).

### § 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 data 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:

| *Subpopulation* | *Kilograms of Body Weight* |
|---|---|
| Man (18+ years of age) | 70 |
| Woman (18+ years of age) | 58 |
| Woman with conceptus | 58 |
| Adolescent (11–18 years of age) | 40 |
| Child (2–10 years of age) | 20 |
| Infant (0–2 years of age) | 10 |

(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

(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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. Amendment of subsection (b) filed 10–17–88 as an emergency; operative 10–27–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–24–89.
5. New section, as amended 10–27–88, refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
6. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).
7. Amendment of subdivision (b) filed 6–25–90; operative 7–25–90 (Register 90, No. 34).

## § 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 subsections (b), (c) and (d) for such chemical shall be deemed to pose no significant risk within the meaning of Health and Safety Code section 25249.10 (c).

(b) Levels of exposure deemed to pose no significant risk may be determined by the lead agency based on a risk assessment conducted by the lead agency pursuant to the guidelines set forth in Section 12703, or a risk assessment reviewed by the lead agency and determined to be consistent with the guidelines set forth in Section 12703.

(1) The following levels based on risk assessments conducted or reviewed by the lead agency shall be deemed to pose no significant risk:

| (b) *Chemical Name* | *Level (micrograms/day)* |
|---|---|
| Acrylonitrile | 0.7 |
| Aldrin | 0.04 |
| Arsenic | 0.06 (inhalation) |
| Asbestos | 100 fibers inhaled/day* |
| Benzene | 7 |
| Benzidine | 0.001 |
| Bis(2–chloroethyl)ether | 0.3 |
| Bis(chloromethyl)ether | 0.02 |
| Butylated hydroxyanisole | 4000 |
| Cadmium | 0.05 (inhalation) |
| Carbon tetrachloride | 5 |
| Chromium (hexavalent compounds) | 0.001 (inhalation) |
| DDT, DDE and DDD (in combination) | 2 |
| 1,2–Dibromo–3–chloropropane (DBCP) | 0.1 |
| para–Dichlorobenzene | 20 |
| 3,3'–Dichlorobenzidine | 0.6 |
| Dichloromethane (Methylene chloride) | 200 (inhalation) |
| Dieldrin | 0.04 |
| 1,4–Dioxane | 30 |
| Epichlorohydrin | 9 |
| Ethylene dibromide | 0.2 (ingestion)<br>3 (inhalation) |
| Ethylene dichloride | 10 |
| Ethylene oxide | 2 |
| Hexachlorobenzene | 0.4 |
| Hexachlorodibenzodioxin | 0.0002 |
| Hexachlorocyclohexane (technical grade) | 0.2 |
| N–Nitroso–n–dibutylamine | 0.06 |
| N–Nitrosodiethylamine | 0.02 |
| N–Nitrosodimethylamine | 0.04 |
| N–Nitrosodiphenylamine | 80 |
| N–Nitrosodi–n–propylamine | 0.1 |
| N–Nitroso–N–ethylurea | 0.03 |
| N–Nitroso–N–methylurea | 0.006 |
| Polybrominated biphenyls | 0.02 |
| 2,3,7,8–Tetrachlorodibenzo–p–dioxin | 0.000005 |
| Toxaphene | 0.6 |
| Trichloroethylene | 50 (ingestion)<br>80 (inhalation) |
| 2,4,6–Trichlorophenol | 10 |
| Urethane | 0.7 |
| Vinyl chloride | 3 |

*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.

(2) Whenever the lead agency proposes to formally adopt, pursuant to this subsection, 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 the 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 subsection 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.

(c) Unless a specific regulatory level for a chemical known to the state to cause cancer has been established in subsection (b), levels of exposure deemed to pose no significant risk may be determined by the lead agency based on state or federal risk assessments.

(1) Any interested party may request the lead agency to reevaluate a level established in this subsection based on scientific considerations that indicate the need for the lead agency to develop its own risk assessment or to conduct a detailed review of the risk assessment used to derive the level in question. Such request shall be made in writing, and shall include a description of the scientific considerations that indicate the need for the lead agency to develop its own risk assessment or to conduct a detailed review of the risk assessment used to derive the level in question. The lead agency may establish a level for the chemical in question in subsection (b) as it deems necessary.

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

| *Chemical Name* | *Level (micrograms/day)* |
|---|---|
| Acetaldehyde | 90 (inhalation) |
| Acrylamide | 0.2 |
| Allyl chloride | 30 |
| Aniline | 100 |
| Azobenzene | 6 |
| Benzo[a]pyrene | 0.06 |
| Benzyl chloride | 4 |
| Beryllium oxide | 0.1 |
| Beryllium sulfate | 0.0002 |

| *Chemical Name* | *Level (micrograms/day)* |
|---|---|
| Bromodichloromethane | 5 |
| 1,3–Butadiene | 0.4 |
| Chlordane | 0.5 |
| Chloroform | 20 (ingestion) |
| | 40 (inhalation) |
| Coke oven emissions | 0.3 |
| DDVP (Dichlorvos) | 2 |
| Dichloromethane (Methylene chloride) | 50 |
| Di(2–ethylhexyl)phthalate | 80 |
| 2,4–Dinitrotoluene | 2 |
| Folpet | 200 |
| Formaldehyde (gas) | 40 |
| Furmecyclox | 20 |
| Heptachlor | 0.2 |
| Heptachlor epoxide | 0.08 |
| Hexachlorocyclohexane | |
| alpha isomer | 0.3 |
| beta isomer | 0.5 |
| gamma isomer | 0.6 |
| Hydrazine | 0.04 |
| Hydrazine sulfate | 0.2 |
| 4,4'–Methylene bis (N,N–dimethyl)benzeneamine | 20 |
| Nickel refinery dust | 0.8 |
| Nickel subsulfide | 0.4 |
| N–Nitrosodiethanolamine | 0.3 |
| N–Nitrosomethylethylamine | 0.03 |
| N–Nitrosopyrrolidine | 0.3 |
| Pentachlorophenol | 40 |
| Polychlorinated biphenyls (PCBs) | 0.09 |
| Tetrachloroethylene | 14 |

(d) Unless a specific regulatory level has been established for a chemical known to the state to cause cancer in subsection (b) or (c), levels of exposure deemed to pose no significant risk may be determined by the lead agency using an expedited method consistent with the procedures specified in Section 12703.

(1) Any interested party may request the lead agency to reevaluate a level established in this subsection and to consider the adoption, in subsection (c), of a level based on a state or federal risk assessment. Such request shall be made in writing, and shall include a copy of the state or federal risk assessment which the interested party wishes the lead agency to consider as the basis for a level in subsection (c). The lead agency may establish a level in subsection (c) for the chemical in question based on a state or federal risk assessment as it deems necessary.

(2) Any interested party may request the lead agency to reevaluate a level established in this subsection based on scientific considerations that indicate the need for a conventional risk assessment. Such request shall be made in writing, and shall include a description of the scientific considerations that indicate the need for a conventional risk assessment. The lead agency may conduct a conventional risk assessment for the chemical in question, and establish a level in subsection (b) as it deems necessary.

(3) The following levels of exposure based on risk assessments conducted by the lead agency using an expedited method consistent with the procedures specified in Section 12703 shall be deemed to pose no significant risk:

| *Chemical Name* | *Level (micrograms/day)* |
|---|---|
| A–alpha–C | |
| (2–Amino–9H–pyrido[2,3–b]indole | 2 |
| Acetamide | 10 |
| 2–Acetylaminofluorene | 0.2 |
| Actinomycin D | 0.00008 |
| AF–2;[2–(2–furyl)–3(5–nitro–2–furyl)] acrylamide | 3 |
| 2–Aminoanthraquinone | 20 |
| o–Aminoazotoluene | 0.2 |
| 4–Aminobiphenyl (4–aminodiphenyl) | 0.03 |
| 3–Amino–9–ethylcarbazole hydrochloride | 9 |
| 1–Amino–2–methylanthraquinone | 5 |
| 2–Amino–5–(5–nitro–2–furyl) –1,3,4–thiadiazole | 0.04 |
| Amitrole | 0.7 |
| o–Anisidine | 5 |
| o–Anisidine hydrochloride | 7 |
| Aramite | 20 |
| Auramine | 0.8 |
| Azaserine | 0.06 |
| Azathioprine | 0.4 |
| Benzyl violet 4B | 30 |
| beta–Butyrolactone | 0.7 |
| Captafol | 5 |
| Captan | 300 |
| Chlorambucil | 0.002 |
| Chlordecone (Kepone) | 0.04 |
| Chlorendic acid | 8 |
| Chlorinated paraffins (Average chain length, C12; approximately 60 percent chlorine by weight) | 8 |
| Chlorodibromomethane | 7 |
| Chloromethyl methyl ether (technical grade) | 0.3 |
| 3–Chloro–2–methylpropene | 5 |
| 4–Chloro–ortho–phenylenediamine | 40 |
| Chlorothalonil | 200 |
| p–Chloro–o–toluidine | 3 |
| Chlorozotocin | 0.003 |
| C. I. Basic Red 9 monohydrochloride | 3 |
| Cinnamyl anthranilate | 200 |
| p–Cresidine | 5 |
| Cupferron | 3 |
| Cyclophosphamide (anhydrous) | 1 |
| Cyclophosphamide (hydrated) | 1 |
| D&C Red No. 9 | 100 |
| Dacarbazine | 0.01 |
| Daminozide | 40 |
| Dantron (Chrysazin: 1,8–Dihydroxyanthraquinone) | 9 |
| 2,4–Diaminoanisole | 30 |
| 2,4–Diaminoanisole sulfate | 50 |
| 4,4'–Diaminodiphenyl ether (4,4'–Oxydianiline) | 5 |
| 2,4–Diaminotoluene | 0.2 |
| Dibenz[a,h]anthracene | 0.2 |
| 1,1–Dichloroethane | 100 |
| Diethylstilbestrol | 0.002 |
| Digylcidyl resorcinol ether (DGRE) | 0.4 |
| Dihydrosafrole | 20 |
| 4–Dimethylaminoazobenzene | 0.2 |
| trans–2[Dimethylamino]methyliminol]–5–[2–(5–nitro–2–furyl)vinyl]–1,3,4–oxadiazole | 2 |
| 7,12–Dimethylbenz(a)anthracene | 0.003 |
| Dimethylcarbamyl chloride | 0.05 |
| 1,2–Dimethylhydrazine | 0.001 |
| Dimethylvinylchloride | 20 |
| Direct Black 38 (technical grade) | 0.09 |
| Direct Blue 6 (technical grade) | 0.09 |
| Direct Brown 95 (technical grade) | 0.1 |
| Disperse Blue 1 | 200 |
| Estradiol 17B | 0.02 |
| Ethyl–4,4'–dichlorobenzilate (chlorobenzilate) | 7 |
| Ethylene thiourea | 20 |
| Ethyleneimine | 0.01 |
| 2–(2–Formylhydrazino)–4–(5–nitro–2–furyl)thiazole | 0.3 |
| Glu–P–1 (2–Amino–6–methyldipyrido [1,2–a:3',2'–d]imidazole) | 0.1 |
| Glu–P–2 (2–Aminodipyrido[1,2–a:3', 2'–d]imidazole | 0.5 |
| Gyromitrin (Acetaldehyde methylformylhydrazone) | 0.07 |
| HC Blue 1 | 10 |
| Hexachloroethane | 20 |

| *Chemical Name* | *Level (micrograms/day)* |
|---|---|
| Hydrazobenzene (1,2–Diphenylhydrazine) | 0.8 |
| IQ (2–Amino–3–methylimidazo [4,5–f]quinoline] | 0.5 |
| Lasiocarpine | 0.09 |
| Lead acetate | 3 |
| Lead subacetate | 20 |
| Me–A–alpha–C (2–Amino–3–methyl–9H–pyrido[2,3–b]indole) | 0.6 |
| Melphalan | 0.005 |
| 3–Methylcholanthrene | 0.03 |
| 4,4'–Methylene bis(2–chloroaniline) | 0.5 |
| 4,4'–Methylene bis(2–methylaniline) | 0.8 |
| 4,4'–Methylenedianiline | 0.4 |
| 4,4'–Methylenedianiline dihydrochloride | 0.6 |
| Methyl methanesulfonate | 7 |
| 2–Methyl–1–nitroanthraquinone (of uncertain purity) | 0.2 |
| N–Methyl–N'–nitro–N–nitrosoguanidine | 0.08 |
| Methylthiouracil | 2 |
| Michler's ketone | 0.8 |
| Mirex | 0.04 |
| Mitomycin C | 0.00009 |
| Monocrotaline | 0.07 |
| 2–Naphthylamine | 0.4 |
| Nitrilotriacetic acid | 100 |
| Nitrilotriacetic acid, trisodium salt monohydrate | 70 |
| 5–Nitroacenaphthene | 6 |
| 5–Nitro–o–anisidine | 10 |
| Nitrofen (technical grade) | 9 |
| Nitrofurazone | 0.5 |
| 1–[5–Nitrofurfurylidine)–amino]–2–imidazolidinone | 0.4 |
| N–[4–(5–Nitro–2–furyl)–2–thiazolyl] acetamide | 0.5 |
| p–Nitrosodiphenylamine | 30 |
| N–Nitroso–N–methylurethane | 0.006 |
| N–Nitrosomorpholine | 0.1 |
| N–Nitrosonornicotine | 0.5 |
| N–Nitrosopiperidine | 0.07 |
| Phenacetin | 300 |
| Phenazopyridine | 4 |
| Phenazopyridine hydrochloride | 5 |
| Phenesterin | 0.005 |
| Phenobarbital | 2 |
| Phenoxybenzamine | 0.2 |
| Phenoxybenzamine hydrochloride | 0.3 |
| o–Phenylphenate, sodium | 200 |
| Ponceau MC (D&C Red No. 5) | 200 |
| Ponceau 3R (FD&C Red No. 1) | 40 |
| Potassium bromate | 1 |
| Procarbazine | 0.05 |
| Procarbazine hydrochloride | 0.06 |
| 1,3–Propane sultone | 0.3 |
| beta–Propiolactone | 0.05 |
| Propylthiouracil | 0.7 |
| Reserpine | 0.06 |
| Safrole | 3 |
| Sterigmatocystin | 0.02 |
| Streptozotocin | 0.006 |
| Styrene oxide | 4 |
| Sulfallate | 4 |
| 1,1,2,2–Tetrachloroethane | 3 |
| Thioacetamide | 0.1 |
| 4,4'–Thiodianiline | 0.05 |
| Thiourea | 10 |
| Toluene diisocyanate | 20 |
| o–Toluidine | 4 |
| o–Toluidine hydrochloride | 5 |
| Tris(1–aziridinyl)phosphine sulfide (Thiotepa) | 0.06 |
| Tris(2,3–dibromopropyl)phosphate | 0.3 |
| Trp–P–1 (Tryptophan–P–1) | 0.03 |
| Trp–P–2 (Tryptophan–P–2) | 0.2 |
| Vinyl trichloride (1,1,2–Trichloroethane) | 10 |

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).
6. New subsection (b) filed 12–1–89; operative 12–31–89 (Register 89, No. 49).
7. Amendment of subsection (b) filed 5–16–90; operative 6–15–90 (Register 90, No. 25).
8. Amendment of subsection (b) filed 5–24–90; operative 6–23–90 (Register 90, No. 25).
9. Editorial correction of printing error in subsection (b) submitted to OAL for printing only 10–9–90 (Register 91, No. 3).
10. Amendment of subsection (b) adding Benzene filed 11–26–90; operative 12–26–90 (Register 91, No. 3).
11. Amendment of subsection (b) adding Arsenic, Butylated hydroxyanisole, Cadmium, and Chromium filed 9–16–92; operative 10–16–92 (Register 92, No. 38).
12. Amendment of subsection (b) adding Hexachlorodibenzodioxin and 2,3,7,8–Tetrachlorodibenzo–p–dioxin filed 9–16–92; operative 10–16–92 (Register 92, No. 38).
13. Amendment of subsection (b) adding dichloromethane, trichloroethylene and vinyl chloride filed 9–24–92; operative 10–26–92 (Register 92, No. 39).
14. Amendment of subsection (a), new subsections (b)–(b)(1), renumbering of subsection (c) to (b)(2) and amendment, new subsections (c)–(d)(3) filed 10–9–92; operative 11–9–92 (Register 92, No. 41).

### § 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

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New subsection (b)(4) filed 10–17–88 as an emergency; operative 10–27–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–24–89.
5. New section, as amended 10–27–88, refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 9). A Certificate of Compliance must be trans-

mitted to OAL within 120 days or emergency language will be repealed on 6–22–89.

6. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).

7. New subsection (b)(5) filed 8–30–90; operative 9–29–90 (Register 90, No. 42).

### § 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)

| *Element* | *No Significant Risk Level in micrograms per day* |
|---|---|
| Arsenic (morganic) | 10 (except inhalation) |
| Beryllium | 0.1 |

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).
6. Amendment of Arsenic and repealer of Cadmium filed 9–16–92; operative 10–16–92 (Register 92, No. 38).

### § 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) 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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120days or emergency language will be repealed on 2–22–89.
4. Amendment filed 10–17–88 as an emergency; operative 10–27–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–24–89.
5. Amendment filed 12–21–88 as an emergency; operative 1–1–89 (Register 89, No. 1). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 5–1–89.
6. New section, as amended 10–27–88 and 1–1–89, refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
7. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).
8. Amendment of subsection (a) filed 12–1–89; operative 12–31–89 (Register 89, No. 49).
9. Amendment of subsection (a) filed 5–16–90; operative 6–15–90 (Register 90, No. 25).
10. Amendment of subsection (a)(2) filed 5–24–90; operative 6–23–90 (Register 90, No. 25).
11. Editorial correction of printing error in subsection (a)(2) submitted to OAL for printing only 10–9–90 (Register 91, No. 3).
12. Amendment of subsection (a)(2) deleting Benzene filed 11–26–90; operative 12–26–90 (Register 91, No. 3).
13. Amendment of subsection (a)(2) filed 11–26–90; operative 12–26–90 (Register 91, No. 3).
14. Amendment of subsection (a)(2) repealing Chromium filed 9–16–92; operative 10–16–92 (Register 92, No. 38).
15. Amendment of subsection (a)(2) repealing Tetrachlorodibenzo–p–dioxin filed 9–16–92; operative 10–16–92 (Register 92, No. 38).
16. Amendment of subsection (a)(2) adding Benzyl chloride and Bromodichloromethane filed 9–16–92; operative 10–16–92 (Register 92, No. 38).
17. Amendment of subsection (a)(2) deleting trichloroethylene and vinyl chloride filed 9–24–92; operative 10–26–92 (Register 92, No. 39).
18. Repealer of subsection (a)(2) and renumbering of following subsection filed 10–9–92; operative 11–9–92 (Register 92, No. 41).

### § 12713. Exposure to Food, Drugs, Cosmetics and Medical Devices.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30). This section provides interim standards pursuant to the policy of the Health and Welfare Agency and the recommendation of the Scientific Advisory Panel.
6. Repealer filed 11–16–93; operative 12–16–93 (Register 93, No. 47).

### § 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 data 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 data (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:

| *Subpopulation* | *Water liters/day* | *Air cubic meters/day* |
|---|---|---|
| Man (18 + years of age) | 2 | 20 |
| Woman (18 + years of age) | 2 | 20 |
| Woman with conceptus | 2 | 20 |
| Adolescent (10–18 years of age) | 2 | 20 |
| Child (2–10 years of age) | 2 | 15 |
| Infant (0–2 years of age) | 1 | 4 |

(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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).

## Article 8. No Observable Effect Levels

### § 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:

(1) 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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).

### § 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, pharmacokinetic 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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance including amendment transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).

### § 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) *Chemical Name* | *Level (Micrograms/day)* |
|---|---|
| Ethylene Oxide | 20.0 |
| Lead | 0.5 |
| Toluene | 7000 |

(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).

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2–24–88 as an emergency; operative 2–27–88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–27–88.
2. New section refiled 6–27–88 as an emergency; operative 6–27–88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10–25–88.
3. New section refiled 10–17–88 as an emergency; operative 10–25–88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2–22–89.
4. New section refiled 2–21–89 as an emergency; operative 2–22–89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6–22–89.
5. Certificate of Compliance transmitted to OAL 6–9–89 and filed 7–10–89 (Register 89, No. 30).
6. Amendment of subsection (b) filed 4–9–92; operative 5–11–92 (Register 92, No. 15).

### § 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.

[The next page is 197.]

(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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6, 25249.9, 25249.10 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2-24-88 as an emergency; operative 2-27-88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6-27-88.
2. New section refiled 6-27-88 as an emergency; operative 6-27-88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10-25-88.
3. New section refiled 10-17-88 as an emergency; operative 10-25-88 (Register 88, No. 44). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2-22-89.
4. New section refiled 2-21-89 as an emergency; operative 2-22-89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6-22-89.
5. Certificate of Compliance including amendment transmitted to OAL 6-9-89 and filed 7-10-89 (Register 89, No. 30).

## Article 9. Miscellaneous

### § 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 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. When 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. When 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.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Sections 25249.5, 25249.6 and 25249.11, Health and Safety Code.

HISTORY

1. New section filed 2-24-88 as an emergency; operative 2-27-88 (Register 88, No. 11). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6-27-88.
2. New section refiled 6-27-88 as an emergency; operative 6-27-88 (Register 88, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10-25-88.
3. New section with amendment of subsections (a) and (b), renumbering and amendment of subsections (c) and (d) to subsections (e) and (f), and new subsections (c), (d) and (g) refiled 10-21-88 as an emergency; operative 10-25-88 (Register 88, No. 44). A Certification of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2-22-89.
4. New section, as amended 10-25-88, refiled 2-21-89 as an emergency; operative 2-22-89 (Register 89, No. 10). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 6-22-89.
5. New section refiled 6-19-89 as an emergency; operative 6-22-89 (Register 89, No. 27). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 10-20-89.
6. Certificate of Compliance as to 6-19-89 order transmitted to OAL 10-20-89 and filed 11-20-89 (Register 89, No. 48).

### § 12902. Formally Required to Be Labeled or Identified As Causing Cancer or Reproductive Toxicity.

(a) In accordance with Section 25249.8(b), Health and Safety Code, a chemical is known to the state to cause cancer or reproductive toxicity within the meaning of the Act, and shall be listed pursuant to Section 25249.8(a), Health and Safety Code, if the lead agency determines that an agency of the state or federal government has formally required the chemical to be labeled or identified as causing cancer or reproductive toxicity. In making such determination, the lead agency shall act in accordance with this section.

(b) The following definitions shall apply to this section:

(1) "lead agency" is defined pursuant to Section 12301(c) of this title.

(2) "agency of the state or federal government" means the United States Congress or the California State Legislature acting through legislation, any agency, department, office, officer, division, bureau, board, or commission of California state government (excluding political subdivisions thereof) or of the United States government, which has the statutory or regulatory authority to require a person or entity outside of that agency to label or identify a chemical as causing cancer or reproductive toxicity.

(3) "has formally required" means that a mandatory instruction, order, condition, or similar command, has been issued in accordance with established policies and procedures of an agency of the state or federal government, to a person or legal entity outside of the agency. The action of such agency may be directed at one or more persons or legal entities and may include formal requirements of general application.

(4) "labeled" means that a warning message about the carcinogenicity or reproductive toxicity of a chemical is printed, stamped, written, or in any other manner placed upon the container in which the chemical is present or its outer or inner packaging including any material inserted with, attached to, or otherwise accompanying such chemical.

(5) "identified" means that a required message about the carcinogenicity or reproductive toxicity of the chemical is to be disclosed in any manner to a person or legal entity other than the person or legal entity who is required to make such disclosure.

(6) "as causing cancer or reproductive toxicity" means:

(A) For chemicals that cause cancer, the required label or identification uses any words or phrases intended to communicate a risk of cancer or tumors.

(B) For chemicals that cause reproductive toxicity, the required label or identification uses any words or phrases intended to communicate a risk of reproductive harm to men or women or both, or a risk of birth defects or other developmental harm.

(c) Any person may petition the lead agency to consider listing a chemical pursuant to this section. The petition shall be considered only if the petition contains sufficient information to support a determination by the lead agency that substantial evidence exists to support a finding that the chemical meets the requirements of this section.

(d) Any determination by the lead agency under this section may be rescinded or modified in light of additional evidence received by the lead agency establishing that the listing does not satisfy the definitions set forth in this section. Any such action to rescind or modify shall be done pursuant to this section.

NOTE: Authority cited: Section 25249.12, Health and Safety Code. Reference: Section 25249.8, Health and Safety Code.

HISTORY

New section filed 3–1–90; operative 3–31–90 (Register 90, No. 11).

### § 12903. Notices of Violation.

(a) For purposes of Health and Safety Code section 25249.7(d), "notice of the violation which is the subject of the action" (hereinafter "notice" or "sixty–day notice") shall mean a notice meeting all requirements of this section. No person shall commence an action to enforce the provisions of the Act "in the public interest" pursuant to Health and Safety Code section 25249.7(d) except in compliance with all requirements of this section.

(b) Contents of Notice.

(1) General Information. Each notice shall include as an attachment a copy of "The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): A Summary" (see Appendix A) prepared by the lead agency. This attachment need not be included in the copies of sixty–day notices sent to public enforcement agencies. A copy of this attachment may be obtained by writing to the Office of Environmental Health Hazard Assessment at P.O. Box 942732, Sacramento, CA 94234–7320.

(2) Description of Violation. A notice shall provide adequate information from which to allow the recipient to assess the nature of the alleged violation, as set forth in this paragraph. The provisions of this paragraph shall not be interpreted to require more than reasonably clear information, expressed in terms of common usage and understanding, on each of the indicated topics.

(A) For all notices, the notice shall identify:

1. the name, address, and telephone number of the noticing individual or a responsible individual within the noticing entity and the name of the entity;

2. the name of the alleged violator or violators;

3. the approximate time period during which the violation is alleged to have occurred; and

4. the name of each listed chemical involved in the alleged violation;

(B) For notices of violations of Health and Safety Code section 25249.5, a general identification of the discharge or release and of the source of drinking water into which the discharges are alleged to have occurred, to be occurring or to be likely to occur.

(C) For all notices of violation of Health and Safety Code section 25249.6, the route of exposure by which exposure is alleged to occur (e.g., by inhalation, ingestion, dermal contact);

(D) For notices of violation of Health and Safety Code section 25249.6 involving consumer product exposures, the name of the consumer product or service, or the specific type of consumer product or services, that cause the violation, with sufficient specificity to inform the recipients of the nature of the items allegedly sold in violation of the law and to distinguish those products or services from others sold or offered by the alleged violator for which no violation is alleged. The identification of a chemical pursuant to subsection (b)(2)(A)4. must be provided for each product or service identified in the notice.

(E) For notices of violation of Health and Safety Code section 25249.6 involving occupational exposures:

1. the general geographic location of the unlawful exposure to employees, or where the exposure occurs at many locations, a description of the occupation or type of task performed by the exposed persons;

2. where the alleged violator is the manufacturer or distributor of the chemical or products causing the exposure, the notice shall identify products in the same manner as set forth for consumer product exposures in subsection (b)(2)(D), above;

(F) For notices of violation of Health and Safety Code section 25249.6 involving environmental exposures as defined in section 12601(d) of this title, the notice shall identify, the location of the source of the exposure. Where numerous sources of the exposure are alleged, the location need not be listed if the notice identifies each facility or source of exposure by stating those common characteristics that result in the allegedly unlawful exposure in a manner sufficient to distinguish those facilities or sources from others for which no violation is alleged. The notice shall state whether the exposure for which a warning allegedly is required occurs beyond the property owned or controlled by the alleged violators.

(3) Where the alleged violations fall within more than one of the categories described in subsection (b)(2)(B) to (b)(2)(F) above, then the notice shall comply with all applicable requirements.

(4) A notice is not required to contain the following information:

(A) The specific retail outlet or time or date at which any product allegedly violating the Act was purchased;

(B) The level of exposure to the chemical in question;

(C) The specific admissible evidence by which the person providing the notice will attempt to prove the violation;

(D) For products, the UPC number, SKU number, model or design number or stock number or other more specific identification of products;

(E) For geographic areas, the lot, block, or other legal description of the property in question.

(c) Service of Notice.

(1) Notices shall be served by first class mail or in any manner that would be sufficient for service of a summons and complaint under the California Code of Civil Procedure.

(2) A certificate of service shall be attached to each notice listing the time, place, and manner of service and each of the parties upon which the notice was served.

(3) Notices shall be served upon each alleged violator, the Attorney General, the district attorney of every county in which a violation is alleged to have occurred, and upon the city attorneys of any cities with populations according to the most recent decennial census of over 750,000 and in which the violation is alleged to have occurred.

(4) Where the alleged violator has a current registration with the California Secretary of State that identifies a Chief Executive Officer, President, or General Counsel of the corporation, the notice shall be addressed to one of those persons.

(d) Computation of Time.

(1) An action is deemed to have been "commenced more than sixty days after the person has given notice" where more than sixty days have elapsed from the date of service of the notice, as that date would be calculated for service of a document pursuant to the provisions of Code of Civil Procedure section 1013.

(2) Where the sixtieth day after giving notice is a day identified as a "holiday" as defined in Code of Civil Procedure section 12a, then the "sixtieth day" shall be extended to the next day which is not a "holiday".

(3) Determination of the first and last day shall be made in accordance with section 12 of the Code of Civil Procedure.

NOTE: Authority cited: Sections 25249.12, Health and Safety Code. Reference: Section 25249.7, Health and Safety Code.

HISTORY

1. New section and Appendix A filed 4–22–97; operative 4–22–97 pursuant to Government Code section 11343.4(d) (Register 97, No. 17).

# D 2

# TITLE 11-DEPARTMENT OF JUSTICE

## DIVISION 4-PROPOSITION 65 PRIVATE ENFORCEMENT

## CHAPTER 1

§ 3000. Authority. This chapter sets forth procedures necessary to comply with Health and Safety Code section 25249.7(e) and (f) as amended by Ch.599, statutes of 1999. Any person proceeding "in the public interest" pursuant to Health and Safety Code § 25249.7(d) (hereinafter "Private Enforcer"), who alleges the existence of violations of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code sections 25249.5 or 25249.6) (hereinafter "Proposition 65"), shall comply with the requirements of this chapter.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3001. Definitions.

(a) "Subject to a settlement" means that a written settlement agreement has been signed by the private enforcer and the alleged violator, or an oral agreement has been stated on the record in court in such manner as to render the agreement enforceable pursuant to Code of Civil Procedure section 664.6, even if the settlement is contingent on the entry of a judgment pursuant to stipulation or other judicial approval.

(b) "Subject to a judgment," other than a judgment pursuant to a settlement, means that the court has entered an order entitling a party to entry of judgment (e.g., order granting a motion for summary judgment, order sustaining demurrer), regardless of whether the actual form of judgment has yet been prepared, approved, or filed.

(c) "Private Enforcement Matter," means any complaint filed in court in which a violation of Proposition 65 is alleged and the Private Enforcer is proceeding pursuant to Health and Safety Code section 25249.7(d).

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections

(Continued on next page)

25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3002. Complaints. A Private Enforcer who commences a Private Enforcement Matter shall serve a file-endorsed copy of the complaint, and a completed version of the Report of Civil Complaint Filing form attached as Appendix A to these regulations, upon the Attorney General within five days after filing the complaint with the court. Any amended complaint shall be served upon the Attorney General within five days after filing with the court along with an updated version of the Report of Civil Complaint Filing.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3003. Settlements. A Private Enforcer who agrees to a settlement of a Private Enforcement Matter shall serve the settlement upon the Attorney General within two working days after the action is subject to a settlement. Where the settlement is submitted to a court for its approval, the Private Enforcer shall notify the court in writing upon presentation of the settlement of its submission to the Attorney General pursuant to this regulation. The submission to the Attorney General shall contain the entire agreement between the parties. "Settlement" for these purposes includes any partial settlement by which injunctive relief, whether permanent or preliminary, is agreed upon, and also includes any agreement pursuant to which the case is dismissed, regardless of the type of relief, if any, obtained in exchange for the dismissal. In such instances, Private Enforcers shall comply with these requirements for each partial settlement and any final settlement. The submission shall include all information set forth in the Report of Settlement form attached as Appendix B. The Attorney General shall have thirty days after actual receipt to review the settlement. During the thirty-day period, the settlement shall not be submitted to the court, unless required by court order or rule or the Attorney General has stated in writing that he does not object to entry

of the settlement. The fact that the Attorney General does not object or otherwise respond to a settlement shall not be construed as endorsement of or concurrence in any settlement.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3004. Judgments. Within ten days after a case is subject to a judgment, a Private Enforcer shall serve on the Attorney General a copy of any judgment or order entitling a party to entry of judgment entered in a Private Enforcement Matter and a completed version of the Report of Entry of Judgment form attached as Appendix C to this regulation. If the judgment does not become final because a notice of appeal is filed, the Private Enforcer shall serve a copy of the notice of appeal on the Attorney General within ten days after receipt. The Private Enforcer shall serve on the Attorney General a copy of any decision of an appellate court concerning the validity of the judgment within five working days after receipt.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3005. Electronic filing. All documents required to be filed pursuant to sections 3002, 3003, and 3004 shall be filed electronically, by submitting the forms and the documents on-line to the Attorney General's website, unless the website states that electronic filing is not currently available, or is not functioning for a twenty-four hour period when electronic filing is attempted.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3006. Manner of Service. When this chapter requires that any document or information be provided to the Attorney General, unless the document is served electronically

*(Continued on next page)*

pursuant to section 3005, service shall be in a manner prescribed by Code of Civil Procedure section 1010-1020, except that any settlement shall be served by hand delivery or overnight mail service. The envelope in which the document is transmitted shall state prominently "Proposition 65 Private Enforcement Matter." After receipt of the Complaint, the Attorney General may then specify that future documents required by this chapter to be filed in that case be served upon a particular office and deputy.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3007. OSHA matters. For matters in which violations with respect to occupational exposures are alleged, compliance with the Director of the Division of Occupational Safety and Health's Special Procedures for Supplementary Enforcement of State Plan Requirements concerning Proposition 65, 8 Cal.Code Regs., § 338, as adopted on October 12, 2000, constitutes compliance with these requirements, except for the filing of the Affidavit of Compliance required by section 3008. That regulation is set forth in Appendix D to these regulations.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

§ 3008. Affidavit of Compliance. At the time of filing of any judgment with the court, a Private Enforcer shall file with the court a declaration or affidavit, meeting all applicable requirements of the Code of Civil Procedure, verifying compliance with all requirements of this chapter. This declaration or affidavit shall include:

(a) Proper proof of service on the Attorney General of all documents required to be served on the Attorney General by this regulation.

(b) If the case is resolved by settlement, a statement that at least thirty days have

elapsed since service of the settlement on the Attorney General or that fewer than thirty days have elapsed but the Attorney General has stated in writing that he does not object to entry of the settlement. Any written response by the Attorney General to the settlement shall be made an exhibit to the declaration or affidavit. The affidavit shall expressly advise the court that pursuant to section 3003 of this regulation, the failure of the Attorney General to comment on a settlement shall not be construed as endorsement of or concurrence in the settlement.

Note: Authority cited: Section 25249.7(f), Health and Safety Code. Reference: Sections 25249.7(e) and 25249.7(f), Health and Safety Code.

**Appendix A: Report of Civil Complaint Filing**

**Appendix B: Report of Settlement**

**Appendix C: Report of Entry of Judgment**

**Appendix D: Director of the Division of Occupational Safety and Health's Special Procedures for Supplementary Enforcement of State Plan Requirements Concerning Proposition 65,**
**8 Cal. Code Regs., § 338,**
**as adopted on October 12, 2000**

State of California - Department of Justice - Attorney General's Office - Proposition 65 Enforcement Reporting
Attention: Prop 65 Coordinator, 1515 Clay Street, Suite 2000, Oakland, CA 94612
PRIVATE ENFORCEMENT FILING - Health and Safety Code section 25249.7(e) and (f)

FORM JUS 1500
(03/01)

# REPORT OF CIVIL COMPLAINT FILING

*Please print or type required information*

☐ Original Filing ☐ Supplemental Filing ☐ Corrected Filing

**PARTIES TO THE ACTION**

PLAINTIFF(S)

DEFENDANT(S)

**CASE INFO**

COURT DOCKET NUMBER

COURT NAME

SHORT CASE NAME

**REPORT INFO**

TYPE OF CLAIM (Check All That Apply)

- ☐ Propostion 65 Unlawful Discharge
- ☐ Proposition 65 Failure to Warn
- ☐ B&P Code section 17200
- ☐ Other _____

RELIEF SOUGHT (Check All That Apply)

- ☐ Warning
- ☐ Discharge Ban
- ☐ Civil Penalty

COPY OF COMPLAINT MUST BE ATTACHED

For Internal Use Only

**FILER INFO**

NAME OF CONTACT

ORGANIZATION

TELEPHONE NUMBER ( )

ADDRESS

FAX NUMBER ( )

CITY STATE ZIP

E-MAIL ADDRESS

**FILING INSTRUCTIONS:** This form can be completed online and printed. If electronic filing is not available, mail the completed form with a copy of the complaint to the attention of the Prop 65 Coordinator at the address shown above. If you need additional space to complete this form please use an attachment.

State of California - Department of Justice - Attorney General's Office - Proposition 65 Enforcement Reporting

Attention: Prop 65 Coordinator, 1515 Clay Street, Suite 2000, Oakland, CA 94612

FORM JUS 1501
(03/01)

PRIVATE ENFORCEMENT FILING - Health and Safety Code section 25249.7(e) and (f)

# REPORT OF SETTLEMENT

*Please print or type required information*

☐ Original Filing ☐ Supplemental Filing ☐ Corrected Filing

**PARTIES TO THE ACTION**

PLAINTIFF(S)

DEFENDANT(S) INVOLVED IN SETTLEMENT

**CASE INFO**

COURT DOCKET NUMBER

COURT NAME

SHORT CASE NAME

**REPORT INFO**

INJUNCTIVE RELIEF

PAYMENT: CIVIL PENALTY

PAYMENT: ATTORNEYS FEES

PAYMENT: OTHER

WILL SETTLEMENT BE SUBMITTED TO COURT? ☐ Yes ☐ No

IF YES, AFTER ENTRY OF JUDGMENT BY COURT, REPORT OF ENTRY OF JUDGMENT MUST BE SUBMITTED TO ATTORNEY GENERAL

DATE SETTLEMENT SIGNED / /

For Internal Use Only

COPY OF SETTLEMENT MUST BE ATTACHED

**FILER INFO**

NAME OF CONTACT

ORGANIZATION

TELEPHONE NUMBER ( )

ADDRESS

FAX NUMBER ( )

CITY STATE ZIP

E-MAIL ADDRESS

**FILING INSTRUCTIONS:** This form can be completed online and printed. If electronic filing is not available, mail the completed form with a copy of the settlement to the attention of the Prop 65 Coordinator at the address shown above. If you need additional space to complete this form please use an attachment.

State of California - Department of Justice - Attorney General's Office - Proposition 65 Enforcement Reporting

Attention: Prop 65 Coordinator, 1515 Clay Street, Suite 2000, Oakland, CA 94612

FORM JUS 1502
(03/01)

PRIVATE ENFORCEMENT FILING - Health and Safety Code section 25249.7(e) and (f)

# REPORT OF ENTRY OF JUDGMENT

*Please print or type required information* ☐ Original Filing ☐ Supplemental Filing ☐ Corrected Filing

**PARTIES TO THE ACTION**

PLAINTIFF(S)

DEFENDANT(S) INVOLVED IN JUDGMENT

**CASE INFO**

COURT DOCKET NUMBER

COURT NAME

SHORT CASE NAME

**REPORT INFO**

INJUNCTIVE RELIEF

PAYMENT: CIVIL PENALTY

PAYMENT: ATTORNEYS FEES

PAYMENT: OTHER

DATE SUBMITTED TO COURT / /

IS JUDGMENT PURSUANT TO SETTLEMENT? ☐ Yes ☐ No

IF YES, DATE SETTLEMENT WAS REPORTED TO ATTORNEY GENERAL / /

For Internal Use Only

COPY OF JUDGMENT MUST BE ATTACHED

**FILER INFO**

NAME OF CONTACT

ORGANIZATION

TELEPHONE NUMBER ( )

ADDRESS

FAX NUMBER ( )

CITY STATE ZIP

E-MAIL ADDRESS

**FILING INSTRUCTIONS:** This form can be completed online and printed. If electronic filing is not available, mail the completed form with a copy of the judgment to the attention of the Prop 65 Coordinator at the address shown above. If you need additional space to complete this form please use an attachment.

**Chapter 3.2. California Occupational Safety and Health Regulations (CAL/OSHA)**
**Subchapter 1. Regulations of the Director of Industrial Relations**

**Article 5. Hazardous Substances Information and Training**

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**§338. Special Procedures for Supplementary Enforcement of State Plan Requirements Concerning Proposition 65.**

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(a) This section sets forth special procedures necessary to comply with the terms of the approval by the United States Department of Labor of the California Hazard Communication Standard, pertaining to the incorporation of the occupational applications of the California Safe Drinking and Toxic Enforcement Act (hereinafter Proposition 65), as set forth in 62 Federal Register 31159 (June 6, 1997). This approval specifically placed certain conditions on the enforcement of Proposition 65 with regard to occupational exposures, including that it does not apply to the conduct of manufacturers occurring outside the State of California. Any person proceeding "in the public interest" pursuant to Health and Safety Code §25249.7 (d) (hereinafter "Supplemental Enforcer") or any district attorney or city attorney or prosecutor pursuant to Health and Safety Code §25249.7(c) (hereinafter "Public Prosecutor"), who alleges the existence of violations of Proposition 65, with respect to occupational exposures as incorporated into the California Hazard Communication Standard (hereinafter "Supplemental Enforcement Matter"), shall comply with the requirements of this section. No Supplemental Enforcement Matter shall proceed except in compliance with the requirements of this section.

(b) 22 CCR §12903, setting forth specific requirements for the content and manner of service of sixty-day notices under Proposition 65, in effect on April 22, 1997, is adopted and incorporated by reference. In addition, any sixty-day notice concerning a Supplemental Enforcement Matter shall include the following statement:

"This notice alleges the violation of Proposition 65 with respect to occupational exposures governed by the California State Plan for Occupational Safety and Health. The State Plan incorporates the provisions of Proposition 65, as approved by Federal OSHA on June 6, 1997. This approval specifically placed certain conditions with regard to occupational exposures on Proposition 65, including that it does not apply to the conduct of manufacturers occurring outside the State of California. The approval also provides that an employer may use the means of compliance in the general hazard communication requirements to comply with Proposition 65. It also requires that supplemental enforcement is subject to the supervision of the California Occupational Safety and Health Administration. Accordingly, any settlement, civil complaint, or substantive court orders in this matter must be submitted to the Attorney General."

(c) A Supplemental Enforcer or Public Prosecutor who commences a Supplemental Enforcement Matter shall serve a file-endorsed copy of the complaint upon the Attorney General within ten days after filing with the Court.

(d) A Supplemental Enforcer or Public Prosecutor shall serve upon the Attorney General a copy of any motion, or opposition to a motion for summary judgment or summary adjudication of issues, a demurrer, motion for preliminary or injunctive relief, or other dispositive motion, and all memoranda of points and authorities in support of or opposing such motions. These materials shall be served upon the Attorney

General on the same day which they are served on the opposing party. A Supplemental Enforcer or Public Prosecutor shall serve upon the Attorney General any decision or order of a court granting or denying summary adjudication, a demurrer, preliminary or final injunctive relief, penalties, or damages relating to a Supplemental Enforcement Matter within five working days after receipt.

(e) A Supplemental Enforcer or Public Prosecutor who agrees to a settlement of a Supplemental Enforcement Matter shall serve the settlement upon the Attorney General within two working days after the agreement is signed by the parties. Where the settlement is submitted to a court for its approval, the Supplemental Enforcer or Public Prosecutor shall notify the court in writing upon presentation of the settlement of its submission to the Attorney General pursuant to this regulation. The submission to the Attorney General shall contain the entire agreement between the parties. (f) When this section requires that any document or information be provided to the Attorney General, service shall be in a manner prescribed by Code of Civil Procedure §1010 et seq. The envelope in which the document is transmitted shall state prominently "Hazard Communication Standard/Proposition 65 Supplemental Enforcement Matter." The Attorney General may then specify that further documents be served upon a particular office and deputy. (g) The special procedures set forth in subsections (a) through

(f) shall be followed for motions or other applications for judicial enforcement of any existing or future settlement agreements pertaining to Proposition 65, with reference to occupational exposures. (h) Where, in the judgment of the Director and the Attorney General, a Supplemental Enforcer or Public Prosecutor has not complied with the provisions of this section, or the provisions of the OSHA approval decision of June 6, 1997, the Attorney General may seek to intervene in the action, or take such actions within his authority as he deems appropriate to assure compliance.

NOTE

Authority cited: Sections 54, 55 and 6380, Labor Code; and 62 Fed. Reg. 31159 (June 6, 1997). Reference: Sections 54, 55 and 6380, Labor Code; and 62 Fed. Reg. 31159 (June 6, 1997).

HISTORY

1. New section filed 10-12-2000; operative 10-12-2000 pursuant to Government Code section 11343.4 (d) (Register 2000, No. 41).

# E

# BUSINESS AND PROFESSIONS CODE SECTION 17200-17210

17200. As used in this chapter, unfair competition shall mean and include any unlawful, unfair or fraudulent business act or practice and unfair, deceptive, untrue or misleading advertising and any act prohibited by Chapter 1 (commencing with Section 17500) of Part 3 of Division 7 of the Business and Professions Code.

17201. As used in this chapter, the term person shall mean and include natural persons, corporations, firms, partnerships, joint stock companies, associations and other organizations of persons.

17201.5. As used in this chapter:
(a) "Board within the Department of Consumer Affairs" includes any commission, bureau, division, or other similarly constituted agency within the Department of Consumer Affairs.
(b) "Local consumer affairs agency" means and includes any city or county body which primarily provides consumer protection services.

17202. Notwithstanding Section 3369 of the Civil Code, specific or preventive relief may be granted to enforce a penalty, forfeiture, or penal law in a case of unfair competition.

17203. Any person who engages, has engaged, or proposes to engage in unfair competition may be enjoined in any court of competent jurisdiction. The court may make such orders or judgments, including the appointment of a receiver, as may be necessary to prevent the use or employment by any person of any practice which constitutes unfair competition, as defined in this chapter, or as may be necessary to restore to any person in interest any money or property, real or personal, which may have been acquired by means of such unfair competition.

17204. Actions for any relief pursuant to this chapter shall be prosecuted exclusively in a court of competent jurisdiction by the Attorney General or any district attorney or by any county counsel authorized by agreement with the district attorney in actions involving violation of a county ordinance, or any city attorney of a city, or city and county, having a population in excess of 750,000, and, with the consent of the district attorney, by a city prosecutor in any city having a full-time city prosecutor or, with the consent of the district attorney, by a city attorney in any city and county in the name of the people of the State of California upon their own complaint or upon the complaint of any board, officer, person, corporation or association or by any person acting for the interests of itself, its members or the general public.

17204.5. In addition to the persons authorized to bring an action pursuant to Section 17204, the City Attorney of the City of San Jose, with the annual consent of the Santa Clara County District Attorney,

is authorized to prosecute those actions.
This section shall remain in effect until such time as the population of the City of San Jose exceeds 750,000, as determined by the Population Research Unit of the Department of Finance, and at that time shall be repealed.

17205. Unless otherwise expressly provided, the remedies or penalties provided by this chapter are cumulative to each other and to the remedies or penalties available under all other laws of this state.

17206. (a) Any person who engages, has engaged, or proposes to engage in unfair competition shall be liable for a civil penalty not to exceed two thousand five hundred dollars ($2,500) for each violation, which shall be assessed and recovered in a civil action brought in the name of the people of the State of California by the Attorney General, by any district attorney, by any county counsel authorized by agreement with the district attorney in actions involving violation of a county ordinance, by any city attorney of a city, or city and county, having a population in excess of 750,000, with the consent of the district attorney, by a city prosecutor in any city having a full-time city prosecutor, or, with the consent of the district attorney, by a city attorney in any city and county, in any court of competent jurisdiction.
(b) The court shall impose a civil penalty for each violation of this chapter. In assessing the amount of the civil penalty, the court shall consider any one or more of the relevant circumstances presented by any of the parties to the case, including, but not limited to, the following: the nature and seriousness of the misconduct, the number of violations, the persistence of the misconduct, the length of time over which the misconduct occurred, the willfulness of the defendant's misconduct, and the defendant's assets, liabilities, and net worth.
(c) If the action is brought by the Attorney General, one-half of the penalty collected shall be paid to the treasurer of the county in which the judgment was entered, and one-half to the State General Fund. If the action is brought by a district attorney or county counsel, the penalty collected shall be paid to the treasurer of the county in which the judgment was entered. Except as provided in subdivision (d), if the action is brought by a city attorney or city prosecutor, one-half of the penalty collected shall be paid to the treasurer of the city in which the judgment was entered, and one-half to the treasurer of the county in which the judgment was entered.
(d) If the action is brought at the request of a board within the Department of Consumer Affairs or a local consumer affairs agency, the court shall determine the reasonable expenses incurred by the board or local agency in the investigation and prosecution of the action.
Before any penalty collected is paid out pursuant to subdivision (c), the amount of any reasonable expenses incurred by the board shall be paid to the state Treasurer for deposit in the special fund of the board described in Section 205. If the board has no such special fund, the moneys shall be paid to the state Treasurer. The amount of any reasonable expenses incurred by a local consumer affairs agency shall be paid to the general fund of the municipality or county that funds the local agency.
(e) If the action is brought by a city attorney of a city and county, the entire amount of the penalty collected shall be paid to the treasurer of the city and county in which the judgment was entered. However, if the action is brought by a city attorney of a city and county for the purposes of civil enforcement pursuant to Section 17980 of the Health and Safety Code or Article 3 (commencing with Section 11570) of Chapter 10 of Division 10 of the Health and Safety Code, either the penalty collected shall be paid entirely to the treasurer of the city and county in which the judgment was entered or, upon the request of the city attorney, the court may

order that up to one-half of the penalty, under court supervision and approval, be paid for the purpose of restoring, maintaining, or enhancing the premises that were the subject of the action, and that the balance of the penalty be paid to the treasurer of the city and county.

17206.1. (a) In addition to any liability for a civil penalty pursuant to Section 17206, any person who violates this chapter, and the act or acts of unfair competition are perpetrated against one or more senior citizens or disabled persons, may be liable for a civil penalty not to exceed two thousand five hundred dollars ($2,500) for each violation, which may be assessed and recovered in a civil action as prescribed in Section 17206.

Subject to subdivision (d), any civil penalty shall be paid as prescribed by subdivisions (b) and (c) of Section 17206.

(b) As used in this section, the following terms have the following meanings:

(1) "Senior citizen" means a person who is 65 years of age or older.

(2) "Disabled person" means any person who has a physical or mental impairment which substantially limits one or more major life activities.

(A) As used in this subdivision, "physical or mental impairment" means any of the following:

(i) Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss substantially affecting one or more of the following body systems: neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive; digestive; genitourinary; hemic and lymphatic; skin; or endocrine.

(ii) Any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities. The term "physical or mental impairment" includes, but is not limited to, such diseases and conditions as orthopedic, visual, speech and hearing impairment, cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, mental retardation, and emotional illness.

(B) "Major life activities" means functions such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

(c) In determining whether to impose a civil penalty pursuant to subdivision (a) and the amount thereof, the court shall consider, in addition to any other appropriate factors, the extent to which one or more of the following factors are present:

(1) Whether the defendant knew or should have known that his or her conduct was directed to one or more senior citizens or disabled persons.

(2) Whether the defendant's conduct caused one or more senior citizens or disabled persons to suffer: loss or encumbrance of a primary residence, principal employment, or source of income; substantial loss of property set aside for retirement, or for personal or family care and maintenance; or substantial loss of payments received under a pension or retirement plan or a government benefits program, or assets essential to the health or welfare of the senior citizen or disabled person.

(3) Whether one or more senior citizens or disabled persons are substantially more vulnerable than other members of the public to the defendant's conduct because of age, poor health or infirmity, impaired understanding, restricted mobility, or disability, and actually suffered substantial physical, emotional, or economic damage resulting from the defendant's conduct.

(d) Any court of competent jurisdiction hearing an action pursuant to this section may make orders and judgments as may be necessary to restore to any senior citizen or disabled person any money or property, real or personal, which may have been acquired by means of a violation of this chapter. Restitution ordered pursuant to this

subdivision shall be given priority over recovery of any civil penalty designated by the court as imposed pursuant to subdivision (a), but shall not be given priority over any civil penalty imposed pursuant to subdivision (a) of Section 17206. If the court determines that full restitution cannot be made to those senior citizens or disabled persons, either at the time of judgment or by a future date determined by the court, then restitution under this subdivision shall be made on a pro rata basis depending on the amount of loss.

17206.5. In addition to the persons authorized to bring an action pursuant to Section 17206, the City Attorney of the City of San Jose, with the annual consent of the Santa Clara County District Attorney, is authorized to prosecute those actions.

This section shall remain in effect until such time as the population of the City of San Jose exceeds 750,000, as determined by the Population Research Unit of the Department of Finance, and at that time shall be repealed.

17207. (a) Any person who intentionally violates any injunction prohibiting unfair competition issued pursuant to Section 17203 shall be liable for a civil penalty not to exceed six thousand dollars ($6,000) for each violation. Where the conduct constituting a violation is of a continuing nature, each day of that conduct is a separate and distinct violation. In determining the amount of the civil penalty, the court shall consider all relevant circumstances, including, but not limited to, the extent of the harm caused by the conduct constituting a violation, the nature and persistence of that conduct, the length of time over which the conduct occurred, the assets, liabilities, and net worth of the person, whether corporate or individual, and any corrective action taken by the defendant.

(b) The civil penalty prescribed by this section shall be assessed and recovered in a civil action brought in any county in which the violation occurs or where the injunction was issued in the name of the people of the State of California by the Attorney General or by any district attorney, any county counsel authorized by agreement with the district attorney in actions involving violation of a county ordinance, or any city attorney in any court of competent jurisdiction within his or her jurisdiction without regard to the county from which the original injunction was issued. An action brought pursuant to this section to recover civil penalties shall take precedence over all civil matters on the calendar of the court except those matters to which equal precedence on the calendar is granted by law.

(c) If such an action is brought by the Attorney General, one-half of the penalty collected pursuant to this section shall be paid to the treasurer of the county in which the judgment was entered, and one-half to the State Treasurer. If brought by a district attorney or county counsel the entire amount of the penalty collected shall be paid to the treasurer of the county in which the judgment is entered. If brought by a city attorney or city prosecutor, one-half of the penalty shall be paid to the treasurer of the county in which the judgment was entered and one-half to the city, except that if the action was brought by a city attorney of a city and county the entire amount of the penalty collected shall be paid to the treasurer of the city and county in which the judgment is entered.

(d) If the action is brought at the request of a board within the Department of Consumer Affairs or a local consumer affairs agency, the court shall determine the reasonable expenses incurred by the board or local agency in the investigation and prosecution of the action.

Before any penalty collected is paid out pursuant to subdivision (c), the amount of the reasonable expenses incurred by the board shall be paid to the State Treasurer for deposit in the special fund of the board described in Section 205. If the board has no such

special fund, the moneys shall be paid to the State Treasurer. The amount of the reasonable expenses incurred by a local consumer affairs agency shall be paid to the general fund of the municipality or county which funds the local agency.

17208. Any action to enforce any cause of action pursuant to this chapter shall be commenced within four years after the cause of action accrued. No cause of action barred under existing law on the effective date of this section shall be revived by its enactment.

17209. If a violation of this chapter is alleged or the application or construction of this chapter is in issue in any proceeding in the Supreme Court of California, a state court of appeal, or the appellate division of a superior court, the person who commenced that proceeding shall serve notice thereof, including a copy of the person's brief or petition and brief, on the Attorney General, directed to the attention of the Consumer Law Section, and on the district attorney of the county in which the lower court action or proceeding was originally filed. The notice, including the brief or petition and brief, shall be served within three days after the commencement of the appellate proceeding, provided that the time may be extended by the Chief Justice or presiding justice or judge for good cause shown. No judgment or relief, temporary or permanent, shall be granted until proof of service of this notice is filed with the court.

17210. (a) For purposes of this section, "hotel" means any hotel, motel, bed and breakfast inn, or other similar transient lodging establishment, but it does not include any residential hotel as defined in Section 50519 of the Health and Safety Code. "Innkeeper" means the owner or operator of a hotel, or the duly authorized agent or employee of the owner or operator.

(b) For purposes of this section, "handbill" means, and is specifically limited to, any tangible commercial solicitation to guests of the hotel urging that they patronize any commercial enterprise.

(c) Every person (hereinafter "distributor") engages in unfair competition for purposes of this chapter who deposits, places, throws, scatters, casts, or otherwise distributes any handbill to any individual guest rooms in any hotel, including, but not limited to, placing, throwing, leaving, or attaching any handbill adjacent to, upon, or underneath any guest room door, doorknob, or guest room entryway, where either the innkeeper has expressed objection to handbill distribution, either orally to the distributor or by the posting of a sign or other notice in a conspicuous place within the lobby area and at all points of access from the exterior of the premises to guest room areas indicating that handbill distribution is prohibited, or the distributor has received written notice pursuant to subdivision (e) that the innkeeper has expressed objection to the distribution of handbills to guest rooms in the hotel.

(d) Every person (hereinafter "contractor") engages in unfair competition for purposes of this chapter who causes or directs any other person, firm, business, or entity to distribute, or cause the distribution of, any handbill to any individual guest rooms in any hotel in violation of subdivision (c) of this section, if the contractor has received written notice from the innkeeper objecting to the distribution of handbills to individual guest rooms in the hotel.

(e) Every contractor who causes or directs any distributor to distribute, or cause the distribution of, any handbills to any individual guest rooms in any hotel, if the contractor has received written notice from the innkeeper or from any other contractor or

intermediary pursuant to this subdivision, objecting to the distribution of handbills to individual guest rooms in the hotel has failed to provide a written copy of that notice to each distributor prior to the commencement of distribution of handbills by the distributor or by any person hired or retained by the distributor for that purpose, or, within 24 hours following the receipt of the notice by the contractor if received after the commencement of distribution, and has failed to instruct and demand any distributor to not distribute, or to cease the distribution of, the handbills to individual guest rooms in any hotel for which such a notice has been received is in violation of this section.

(f) Any written notice given, or caused to be given, by the innkeeper pursuant to or required by any provision of this section shall be deemed to be in full force and effect until such time as the notice is revoked in writing.

(g) Nothing in this section shall be deemed to prohibit the distribution of a handbill to guest rooms in any hotel where the distribution has been requested or approved in writing by the innkeeper, or to any individual guest room when the occupant thereof has affirmatively requested or approved the distribution of the handbill during the duration of the guest's occupancy.

F

4. Amendment filed 1–22–99 as an emergency; effective 1–22–99 (Register 99, No. 4). The emergency regulation filed 1–22–99 shall remain in effect until the nonemergency regulation becomes operative or until August 1, 1999, whichever first occurs pursuant to Labor Code section 144.7(a).
5. Permanent adoption of 1–22–99 amendments, including further amendments, filed 7–30–99 pursuant to Labor Code section 144.7(a); operative 7–30–99 pursuant to Government Code section 11343.4(d) (Register 99, No. 31).

## § 5194. Hazard Communication.

(a) (Reserved)

(b) Scope and Application.

(1) This section requires manufacturers or importers to assess the hazards of substances which they produce or import, and all employers to provide information to their employees about the hazardous substances to which they may be exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers.

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

(3) This section applies to laboratories that primarily provide quality control analyses for manufacturing processes or that produce hazardous substances for commercial purposes, and to all other laboratories except those under the direct supervision and regular observation of an individual who has knowledge of the physical hazards, health hazards, and emergency procedures associated with the use of the particular hazardous substances involved, and who conveys this knowledge to employees in terms of safe work practices. Such excepted laboratories must also ensure that labels of incoming containers of hazardous substances are not removed or defaced pursuant to section 5194(f)(4), and must maintain any material safety data sheets that are received with incoming shipments of hazardous substances and ensure that they are readily available to laboratory employees pursuant to section 5194(g).

(4) This section does not require labeling of the following substances:

(A) Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

(B) Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device, including materials intended for use as ingredients in such products (e.g., flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) and regulations issued under that Act, when they are subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Food and Drug Administration;

(C) Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 et seq.) and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, and Firearms; and;

(D) Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission.

(5) This section does not apply to:

(A) Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42U.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 (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, 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 100° F (37.8° C), but below 200° F (93.3° C), except any mixture having components with flashpoints of 200° F (93.3° C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Common name.

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

Compressed gas.

Compressed gas means:

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

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

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

Container.

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

Department.

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

Designated representative.

Any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Director.

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

Distributor.

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

Division.

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

Emergency.

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

Employee.

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

Employer.

Employer means:

(A) The State and every State agency.

(B) Each county, city, district, and all public and quasi-public corporations and public agencies therein.

(C) Every person including any public service corporation, which has any natural person in service.

(D) The legal representative of any deceased employer.

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

Exposure or Exposed.

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

[The next page is 844.13.]

Flammable.

A substance that falls into one of the following categories:

(A) Aerosol, flammable. An aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;

(B) Gas, flammable:

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

2. A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;

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

(D) Solid, flammable. A solid, other than a blasting agent or explosive as defined in section 5237(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint.

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

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

(B) Pensky–Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky–Martens Closed Tester, Z11.7–1979 (ASTM D 93–79)) for liquids with a viscosity equal to or greater than 45 SUS at 100° F (37.8° C), or that have a tendency to form a surface film under test; or

(C) Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278–78)).

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

Hazard warning.

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

Hazardous substance.

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

Health hazard.

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

Identity.

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

Immediate use.

The hazardous substance will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Importer.

The first business with employees within the Customs Territory of the United States which receives hazardous substances produced in other countries for the purpose of supplying them to distributors or purchasers within the United States.

Label.

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

Manufacturer.

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

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

Mixture.

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

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

Organic peroxide.

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

Oxidizer.

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

Physical hazard.

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

Produce.

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

Pyrophoric.

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

Responsible party.

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

Specific chemical identity.

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

Substance.

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

Trade secret.

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

Unstable (reactive).

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

Use.

To package, handle, react, or transfer.

Water–reactive.

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

Work area.

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

Workplace.

Any place, and the premises appurtenant thereto, where employment is carried on, except a place the health and safety jurisdiction over which is vested by law in, and actively exercised by, any state or federal agency other than the Division.

(d) Hazard Determination.

(1) Manufacturers and importers shall evaluate substances produced in their workplaces or imported by them to determine if they are hazardous. Employers are not required to evaluate substances unless they choose not to rely on the evaluation performed by the manufacturer or importer for the substance to satisfy this requirement.

(2) Manufacturers, importers, or employers evaluating substances shall identify and consider the available scientific evidence concerning such hazards. For health hazards, evidence which is statistically significant and which is based on at least one positive study conducted in accordance with established scientific principles is considered to be sufficient to establish a hazardous effect if the results of the study meet the definitions of health hazards in this section. Appendix A shall be consulted for the scope of health hazards covered, and Appendix B shall be consulted for the criteria to be followed with respect to the completeness of the evaluation, and the data to be reported.

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

(A) The list of hazardous substances prepared by the Director pursuant to Labor Code section 6382 and as promulgated in title 8, California Code of Regulations, section 339. The concentrations and footnotes which are applicable to the list shall be understood to modify the same substance on all other source lists or hazard determinations set forth in sections 5194(d)(3)(B)–5194(d)(5)(D).

(B) 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

(C) 1991–1992 Threshold Limit Values for Chemical Substances in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH).

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), *Sixth Annual Report on Carcinogens*, 1991.

(B) International Agency for Research on Cancer (IARC) *Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man*, Vols 1–53 and Supplements 1–8. World Health Organization.

(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.

(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 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) *Sixth Annual Report on Carcinogens* or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) *Monographs*, Vols 1–53 and Supplements 1–8, 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.

(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).

(9) Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the material safety data sheets may be kept at a central location at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

(10) Material safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous substances in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous substances. However, the employer shall ensure that in all cases the required information is provided for each hazardous substance, and is readily accessible during each work shift to employees when they are in their work area(s).

(11) Material safety data sheets shall also be made readily available, upon request, to designated representatives, and to the Chief, in accordance with the requirements of section 3204(e). NIOSH and the employee's physician shall also be given access to material safety data sheets in the same manner.

(12) If the material safety data sheet, or any item of information required by section 5194(g)(2), is not provided by the manufacturer or importer, the employer shall:

(A) Within 7 working days of noting this missing information, either from a request or in attempting to comply with section 5194(g)(1), make written inquiry to the manufacturer or importer of a hazardous substance responsible for the material safety data sheet, asking that the complete material safety data sheet be sent to the employer. If the employer has made written inquiry in the preceding 12 months as to whether the substance or product is subject to the requirements of the Act or the employer has made written inquiry within the last 6 months requesting new, revised or later information on the material safety data sheet for the hazardous substance, the employer need not make additional written inquiry.

(B) Notify the requester in writing of the date that the inquiry was made, to whom it was made, and the response, if any, received. Providing the requestor with a copy of the inquiry sent to the manufacturer, producer or seller and a copy of the response will satisfy this requirement.

(C) Notify the requestor of the availability of the material safety data sheet within 15 days of the receipt of the material safety data sheet from the manufacturer, producer or seller or provide a copy of the material safety data sheet to the requestor within 15 days of the receipt of the material safety data sheet from the manufacturer, producer or seller.

(D) Send the Director a copy of the written inquiry if a response has not been received within 25 working days.

(13) The preparer of a material safety data sheet shall provide the Director with a copy of the material safety data sheet. Where a trade secret claim is made, the preparer shall submit the information specified in section 5194(i)(15).

(h) Employee Information and Training.

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

HISTORY

1. New section filed 12–9–81; designated effective 180 days following adoption of a list of hazardous substances pursuant to the Act by the Director, Department of Industrial Relations (Register 81, No. 50).
2. Repealer and new section (including appendices A–C) filed 11–22–85; designated effective 11–25–85 pursuant to Government Code section 11346.2(d) (Register 85, No. 47).
3. Order of Repeal of subsection (a) pursuant to Government Code section 11342(b), amendment, and new appendix D filed 5–26–87; operative 6–25–87 (Register 87, No. 23).
4. Change without regulatory effect removing chapter heading filed 3–6–91; operative 4–4–91 (Register 91, No. 15).
5. Change without regulatory effect repealing Article 110 heading "Special Hazardous Substances and Processes" filed 3–6–91 pursuant to section 100, title 1, California Code of Regulations (Register 91, No. 15).
6. New subsections (b)(6)(A)–(E) and (k)(3) filed 5–31–91 as an emergency; operative 5–31–91 (Register 91, No. 33). A Certificate of Compliance must be transmitted to OAL by 9–30–91 or emergency language will be repealed by operation of law on the following day.
7. Amendment of section filed 9–30–91 as an emergency; operative 9–30–91 (Register 92, No. 2). A Certificate of Compliance must be transmitted to OAL 1–28–92 or emergency language will be repealed by operation of law on the following day.
8. Repealed by operation of Government Code section 11346.1(g) (Register 92, No. 12).
9. New subsections (b)(6)(A)–(F) and (k)(3) refiled 12–17–91; operative 12–17–91. Certificate of Compliance included (Register 92, No. 12).
10. Change without regulatory effect amending definitions of Chief, Department, and Director in subsection (c) filed 3–4–92 pursuant to section 100, title 1, California Code of Regulations (Register 92, No. 19).
11. New subsections (b)(5)(I)–(b)(5)(I)3. and (e)(2)(A)–(C), new subsection (g)(2)(a)3.b. and subsection relettering, new subsection (g)(9) and subsection renumbering, and amendment of subsections (b)(4)(B), (b)(5)(H), (d)(3)(A), (d)(3)(C), (d)(4)–(d)(4)(B), (d)(5)(D), (e)(1), (e)(2), (f), (f)(1), (g)(1), (g)(2)(G), (g)(8), (h)(2)(C), (i)(9), (i)(16) and newly designated subsections (g)(10) and (g)(12)(D) filed 4–26–93; operative 5–26–93 (Register 93, No. 18).
12. Editorial correction of HISTORY 9 (Register 94, No. 13).
13. Change without regulatory effect amending subsection (g)(12)(A) filed 12–14–94 pursuant to section 100, title 1, California Code of Regulations (Register 94, No. 50).
14. Repealer of note to subsection (f) filed 9–4–97; operative 10–4–97 (Register 97, No. 36).
15. Change without regulatory effect changing subsection (k) designator to subsection (j) designator filed 3–15–99 pursuant to section 100, title 1, California Code of Regulations (Register 99, No. 12).

## Appendix A to Section 5194

### 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.

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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.

NOTE: Authority cited: Sections 142.3 and 6398, Labor Code. Reference: Sections 142.3 and 6361–6399.7, Labor Code; and *United Steelworkers of America v. Auchter* (3d Cir. 1985) 763 F.2d 728.

HISTORY

1. Amendment of subsections 1.(a), 1.(b) and 4. of Appendix A filed 4–26–93; operative 5–26–93 (Register 93, No. 18).

## Appendix B to Section 5194

### 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.

NOTE: Authority cited: Sections 142.3 and 6398, Labor Code. Reference: Sections 142.3 and 6361–6399.7, Labor Code; and *United Steelworkers of America v. Auchter* (3d Cir. 1985) 763 F.2d 728.

HISTORY

1. Amendment filed 4–26–93; operative 5–26–93 (Register 93, No. 18).

## Appendix C to Section 5194

### Information Sources (Advisory)

The following is a list of available data sources which the manufacturer, importer, or employer may wish to consult to evaluate the hazards of substances they produce or import:

Any information in their own company files such as toxicity testing results or illness experience of company employees.

Any information obtained from the supplier of the substance, such as material safety data sheets or product safety bulletins.

Any pertinent information obtained from the following source list (latest editions should be used):

*Condensed Chemical Dictionary*, Van Nostrand Reinhold Co., 135 West 50th Street, New York, NY 10020

*The Merck Index: An Encyclopedia of Chemicals and Drugs, Merck and Company*, Inc., 126 East Lincoln Avenue, Rahway, NJ 07065

*IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man and Supplements*, Geneva: World Health Organization, International Agency for Research on Cancer, 1972–Present (multivolume work), 49 Sheridan Avenue, Albany, NY 12210

*Industrial Hygiene and Toxicology*, by F. A. Patty, John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158–0012 (multivolume work)

*Clinical Toxicology of Commercial Products*, Gleason, Gosselin and Hodge

*Casarett and Doull's Toxicology:* The Basic Science of Poisons, Doull, Klaassen, and Amdur, Macmillan Publishing Co., Inc., New York, NY

*Industrial Toxicology*, by Alice Hamilton and Harriet L. Hardy, Publishing Sciences Group, Inc., Acton, MA

*Toxicology of the Eye*, by W. Morton Grant, Charles C. Thomas, 301–327 East Lawrence Avenue, Springfield, IL

*Recognition of Health Hazards in Industry*, William A. Burgess, John Wiley and Sons, 605 Third Avenue, New York, NY 10158–0012

*Chemical Hazards of the Workplace*, Gloria J. Hathaway, Nick H. Proctor, James P. Hughes and Michael L. Fischman, J. P. Lipincott Company, East Washington Square, Philadelphia, PA 19105

*CRC Handbook of Chemistry and Physics*, CRC Press, Inc., Boca Raton, FL

*Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*, American Conference of Governmental Industrial Hygienists, 6500 Glenway Avenue, Bldg. D–7, Cincinnati, OH 45211–4438

Information on the physical hazards of chemicals may be found in publications of the National Fire Protection Association, Boston, MA.

NOTE: —The following documents are on sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Out-of-print documents may be available from the National Technical Information Service (NTIS), Springfield, VA 22161.

*Occupational Health Guidelines* (NIOSH Pub. No. 81–123).

*Occupational Health Guidelines, Supplement 1* (NIOSH Pub. No. 88–1188).

*Occupational Health Guidelines, Supplement 2* (NIOSH Pub. No. 89–104).

*NIOSH Pocket Guide to Chemical Hazards*, NIOSH Pub. No. 90–117.

*Registry of Toxic Effects of Chemical Substances*, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health (latest edition).

*The Industrial Environment—Its Evaluation and Control*, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health (NIOSH Pub. No. 74–117).

*Miscellaneous Documents*—National Institute for Occupational Safety and Health:

1. Criteria for a recommended standard * * * Occupational Exposure to "_____"
2. Special Hazard Reviews
3. Occupational Hazard Assessment
4. Current Intelligence Bulletins

*OSHA's General Industry Standards* (29 CFR Part 1910)

*NTP Annual Report on Carcinogens and Summary of the Annual Report on Carcinogens.*

BIBLIOGRAPHIC DATA BASES

Service Provider and File Name:

BRS Information Technologies, Inc., a division of Maxwell Online, Inc., 8000 Westpark Dr., McLean, VA 22102

AGRICOLA
BIOSIS PREVIEWS
CA SEARCH
DRUG INFORMATION FULL TEXT
MEDLINE
NTIS
POLLUTION ABSTRACTS
TOXLINE

DIALOG, Dialog Information Services, Inc., 3460 Hillview Avenue, Palo Alto, CA 94304

AGRICOLA
BIOSIS PREVIEWS, 1969–PRESENT
CAB ABSTRACTS 1972–PRESENT
CHEMICAL EXPOSURE 1974–PRESENT
CA SEARCH 1967–PRESENT
CHEMNAME 1967–PRESENT
CHEMSEARCH 1957–PRESENT
CONFERENCE PAPERS INDEX
EMBASE 1974–PRESENT
ENVIRONMENTAL BIBLIOGRAPHY 1973–PRESENT
ENVIROLINE 1971–PRESENT
FEDERAL RESEARCH IN PROGRESS
FOOD SCIENCE & TECHNOLOGY ABSTRACTS
FOODS ADLIBRA
INTL. PHARMACEUTICAL ABSTRACTS
LIFE SCIENCES COLLECTION 1978–PRESENT
NTIS
OCCUPATIONAL SAFETY AND HEALTH (NIOSH) 1973–PRESENT
PAPERCHEM 1967–PRESENT
POLLUTION ABSTRACTS
SCISEARCH 1974–PRESENT

Orbit Search Service, a division of Maxwell Online, Inc., 8000 Westpark Dr., McLean, VA 22102

CHEMICAL ABSTRACTS
CHEMDEX
ENVIROLINE
LABORDOC
NTIS

Fein–Marquart Associates (FMA), Chemical Information Systems, Inc. (CIS), 7215 Yorke Road, Baltimore, MD 21212

Structure & Nomenclature Search System (SANSS)
RTECS
Clinical Toxicology of Commercial Products (CTCP)
Oil and Hazardous Materials Technical Assistance Data System

MEDLARS Management Section, National Library of Medicine, Department of Health and Human Services, Public Health Service, National Institutes of Health, 8600 Rockville Pike, Bethesda, MD 20894

BACKFILES
CANCERLIT
CHEMLINE
HAZARDOUS SUBSTANCES DATABANK
MEDLINE
RTECS
SDILINE
TOXLINE
TOXLINE65
TOXLIT
TOXLIT65
TOXNET/TOXICOLOGIC DATA & TRI

Questel, Inc., 2300 Clarendon Blvd., Suite 1111, Arlington, VA 22201

CIS/ILO

NOTE: Sections 142.3 and 6398, Labor Code. Reference: Sections 142.3 and 6361–6399.7, Labor Code; and United Steelworkers of America v. Auchter (3d Cir. 1985) 763 F.2d 728.

HISTORY

1. Amendment filed 4–26–93; operative 5–26–93 (Register 93, No. 18).

## Appendix D to Section 5194

### 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.

NOTE: Authority cited: Sections 142.3 and 6398, Labor Code. Reference: Sections 142.3 and 6361–6399.7, Labor Code; and *United Steelworkers of America v. Auchter* (3d Cir. 1985) 763 F.2d 728.

## Appendix E to Section 5194

### 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. Three-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., checkout 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, in-

door 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 caner, 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 date 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:

| *Subpopulation* | *Kilograms of Body Weight* |
|---|---|
| Man (18+ years of age) | 70 |
| Woman (18+ years of age) | 58 |
| Woman with conceptus | 58 |
| Adolescent (11-18 years of age) | 40 |
| Child (2-10 years of age) | 20 |
| Infant (0-2 years of age) | 10 |

(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

(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)

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

*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)

| *Element* | *No Significant Risk Level in micrograms per day* |
|---|---|
| Arsenic (inorganic) | 10 |
| Beryllium | 0.1 |
| Cadmium | 1 |

### # 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:

| *Chemical Name* | *Level micrograms/day* |
|---|---|
| Acetaldehyde | 90 |
| Acrylamide | 0.2 |
| Allyl chloride | 30 |
| Aniline | 100 |
| Azobenzene | 6 |
| Benzo (a) pyrene | 0.06 |
| Beryllium oxide | 0.1 |
| Beryllium sulfate | 0.0002 |
| 1,3–Butadiene | 0.4 |
| Chlordane | 0.5 |
| Chloroform | 9 |
| Chromium (hexavalent) | 0.001 |
| Coke oven emissions | 0.3 |
| DDVP (Dichlorvos) | 2 |
| Dichloromethane (Methylene Chloride) | 50 |
| Di (2–ethylhexyl) phthalate | 80 |
| 2,4–Dinitrotoluene | 2 |

| *Chemical Name* | *Level micrograms/day* |
|---|---|
| Folpet | 200 |
| Formaldehyde (gas) | 15 |
| Furmecyclox | 20 |
| Heptachlor | 0.2 |
| Heptachlor epoxide | 0.08 |
| Hexachlorocyclohexane | |
| alpha isomer | 0.3 |
| beta isomer | 0.5 |
| gamma isomer | 0.6 |
| Hydrazine | 0.04 |
| Hydrazine sulfate | 0.2 |
| 4,4'–Methylene bis (N,N–dimethyl)benzeneamine | 20 |

| | |
|---|---|
| Nickel refinery dust | 0.8 |
| Nickel subsulfide | 0.4 |
| N–Nitrosodiethanolamine | 0.3 |
| N–nitrosomethylethylamine | 0.03 |
| N–nitrosopyrrolidine | 0.3 |
| Pentachlorophenol | 40 |
| Polychlorinated Biphenyls (PCBs) | 0.09 |
| Tetrachlorodibenzo–p–dioxin (TCDD) | 0.000005 |
| Tetrachloroethylene | 14 |
| Trichlorethylene | 60 |
| Vinyl chloride | 0.3 |

(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:

| *Subpopulation* | *Water liters/day* | *Air cubic meters/day* |
|---|---|---|
| Man (18+ years of age) | 2 | 20 |
| Woman (18+ years of age) | 2 | 20 |
| Woman with conceptus | 2 | 20 |
| Adolescent (10–18 years of age) | 2 | 20 |
| Child (2–10 years of age) | 2 | 15 |
| Infant (0–2 years of age) | 1 | 4 |

(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:

(1) 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)

| *Chemical Name* | *Level Micrograms/day* |
|---|---|
| Ethylene Oxide | 20.0 |
| Lead | 0.5 |

(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. When 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. When 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.

NOTE: Authority cited: Sections 50.7 and 142.3, Labor Code. Reference: Sections 50.7 and 142.3, Labor Code; Sections 25249.6, 25249.7, 25249.8, 25249.10, 25249.11, 25249.12 and 25249.13, Health and Safety Code; and *California Lab. Federation* v. *Occupational Safety and Health Stds. Bd.* (1990) 221 Cal.App.3d 1547 [271 Cal. Rptr. 310].

HISTORY

1. New appendix E filed 5–31–91 as an emergency; operative 5–31–91 (Register 91, No. 33). A Certificate of Compliance must be transmitted to OAL by 9–30–91 or emergency appendix E language will be repealed by operation of law on the following day.
2. Amendment of section filed 9–30–91 as an emergency; operative 9–30–91 (Register 92, No. 2). A Certificate of Compliance must be transmitted to OAL 1–28–92 or emergency language will be repealed by operation of law on the following day.
3. Certificate of Compliance as to 9–30–91 order transmitted to OAL 11–22–91 and filed 12–17–91 (Register 92, No. 12).
4. Editorial correction of HISTORY 3 and 4 (Register 94, No. 50).
5. Editorial correction of #12502 and #12601 (c)(1)(C) (Register 95, No. 24).

## § 5194.1. Retention of DOT Markings, Placards and Labels.

(a) Any employer who receives a package of hazardous material which is required to be marked, labeled or placarded in accordance with the U.S. Department of Transportation's Hazardous Materials Regulations (49 CFR Parts 171 through 180) shall retain those markings, labels and placards on the package until the packaging is sufficiently cleaned of residue and purged of vapors to remove any potential hazards.

(b) Any employer who received a freight container, rail freight car, motor vehicle, or transport vehicle that is required to be marked or placarded in accordance with the Hazardous Materials Regulations shall retain those markings and placards on the freight container, rail freight car, motor vehicle or transport vehicle until the hazardous materials which require the marking or placarding are sufficiently removed to prevent any potential hazards.

(c) Markings, placards and labels shall be maintained in a manner that ensures that they are readily visible.

(d) For non–bulk packages which will not be reshipped, the provisions of this section are met if a label or other acceptable marking is affixed in accordance with the Hazard Communications Standard, section 5194.

(e) For the purposes of this section the term "hazardous material" and any other terms not defined in this section have the same definition as in the Hazardous Materials Regulations (49 CFR Parts 171 through 180).

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New section filed 1–4–95; operative 2–3–95. Submitted to OAL for printing only pursuant to Labor Code section 142.3(a)(3) (Register 95, No. 1).

## § 5195. Nitrous Oxide.

The piped systems for the in–plant transfer and distribution of nitrous oxide shall be designed, installed, maintained, and operated in accordance with Compressed Gas Association Pamphlet G–8.1–1979, incorporated herein by this reference.

[The next page is 844.27.]

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that State's laws and regulations shall be deemed to be in compliance with the radiation requirements of this section, insofar as his possession and use of such material is concerned, provided the State's program for control of these radiation sources is the subject of a currently effective determination by the Assistant Secretary of Labor that such program is compatible with the requirements of this section. Such determinations currently are in effect only in the States of Alabama, Arkansas, California, Kansas, Kentucky, Florida, Mississippi, New Hampshire, New York, North Carolina, Texas, Tennessee, Oregon, Idaho, Arizona, Colorado, Louisiana, Nebraska, Washington, Maryland, North Dakota, South Carolina, and Georgia.

[39 FR 23502, June 27, 1974, as amended at 43 FR 49746, Oct. 24, 1978; 43 FR 51759, Nov. 7, 1978; 49 FR 18295, Apr. 30, 1984; 58 FR 35309, June 30, 1993. Redesignated at 61 FR 31430, June 20, 1996]

### § 1910.1200 Hazard communication.

(a) *Purpose.* (1) The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

(2) This occupational safety and health standard is intended to address comprehensively the issue of evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legal requirements of a state, or political subdivision of a state, pertaining to this subject. Evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of material safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce, through any court or agency, any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

(b) *Scope and application.* (1) This section requires chemical manufacturers or importers to assess the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are 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. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers. Appendix E of this section is a general guide for such employers to help them determine their compliance obligations under the rule.)

(2) This section applies to any chemical 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 foreseeable emergency.

(3) This section applies to laboratories only as follows:

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

(ii) Employers shall maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each workshift to laboratory employees when they are in their work areas;

(iii) Employers shall ensure that laboratory employees are provided information and training in accordance with paragraph (h) of this section, except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section; and,

(iv) Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule, and thus must ensure that any containers of hazardous chemicals leaving the laboratory are labeled in accordance with paragraph (f)(1) of this section, and that a material safety data sheet is provided to distributors and other employers in accordance with paragraphs (g)(6) and (g)(7) of this section.

(4) In work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use (such as are found in marine cargo handling, warehousing, or retail sales), this section applies to these operations only as follows:

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

(ii) Employers shall maintain copies of any material safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a material safety data sheet as soon as possible for sealed containers of hazardous chemicals 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,

(iii) Employers shall ensure that employees are provided with information and training in accordance with paragraph (h) of this section (except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section), to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

(5) This section does not require labeling of the following chemicals:

(i) 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;

(ii) Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act (15 U.S.C. 2601 *et seq.*), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency.

(iii) Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, 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.*) or the Virus-Serum-Toxin Act of 1913 (21 U.S.C. 151 *et seq.*), and regulations issued under those Acts, when they are subject to the labeling requirements under those Acts by either the Food and Drug Administration or the Department of Agriculture;

(iv) 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;

(v) 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; and,

(vi) Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act (7 U.S.C. 1551 *et seq.*) and the labeling regulations issued under that Act by the Department of Agriculture.

(6) This section does not apply to: (i) 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;

(ii) Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability ACT (CERCLA) (42 U.S.C. 9601 *et seq.*) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with Environmental Protection Agency regulations;

(iii) Tobacco or tobacco products;

(iv) Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);

(v) Articles (as that term is defined in paragraph (c) of this section);

(vi) Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;

(vii) Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 *et seq.*), when it is in solid, final form for direct administration to the patient (*e.g.*, tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (*e.g.*, over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (*e.g.*, first aid supplies);

(viii) Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;

(ix) 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, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

(x) Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;

(xi) Ionizing and nonionizing radiation; and,

(xii) Biological hazards.

(c) *Definitions.*

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

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

*Chemical* means any element, chemical compound or mixture of elements and/or compounds.

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

*Chemical name* means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

*Combustible liquid* means 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.

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

*Common name* means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

*Compressed gas* means:

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

(ii) 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

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

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

*Designated representative* means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

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

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

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

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

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

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

*Flammable* means a chemical that falls into one of the following categories:

(i) *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;

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

(B) 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;

(iii) *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.

(iv) *Solid, flammable* means a solid, other than a blasting agent or explosive as defined in §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* means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

(i) Tagliabue Closed Tester (See American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24–1979 (ASTM D 56–79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100 °F (37.8 °C), that do not contain suspended solids and do not have a tendency to form a surface film under test; or

(ii) Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7–1979 (ASTM D 93–79)) for liquids with a viscosity equal to or greater than 45 SUS at 100 °F (37.8 °C), or that contain suspended solids, or that have a tendency to form a surface film under test; or

(iii) 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.

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

*Hazardous chemical* means any chemical which is a physical hazard or a health hazard.

*Hazard warning* means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered.)

*Health hazard* means 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 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 chemical is to be considered hazardous for purposes of this standard.

*Identity* means any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

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

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

*Label* means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

*Material safety data sheet (MSDS)* means written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of this section.

*Mixture* means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

*Organic peroxide* means 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* means a chemical other than a blasting agent or explosive as defined in § 1910.109(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* means 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.

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

*Pyrophoric* means a chemical that will ignite spontaneously in air at a temperature of 130 °F (54.4 °C) or below.

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

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

*Trade secret* means any confidential formula, pattern, process, device, 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. Appendix D sets out the criteria to be used in evaluating trade secrets.

*Unstable (reactive)* means a chemical 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* means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

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

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

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

(d) *Hazard determination.* (1) Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to determine if they are hazardous. Employers are not required to evaluate chemicals unless they choose not to rely on the evaluation performed by the chemical manufacturer or importer for the chemical to satisfy this requirement.

(2) Chemical manufacturers, importers or employers evaluating chemicals 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 chemical manufacturer, importer or employer evaluating chemicals shall treat the following sources as establishing that the chemicals listed in them are hazardous:

(i) 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA); or,

(ii) *Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment*, American Conference of Governmental Industrial Hygienists (ACGIH) (latest edition). The chemical manufacturer, importer, or employer is still responsible for evaluating the hazards associated with the chemicals in these source lists in accordance with the requirements of this standard.

(4) Chemical manufacturers, importers and employers evaluating chemicals shall treat the following sources as establishing that a chemical is a carcinogen or potential carcinogen for hazard communication purposes:

(i) National Toxicology Program (NTP), *Annual Report on Carcinogens* (latest edition);

(ii) International Agency for Research on Cancer (IARC) *Monographs* (latest editions); or

(iii) 29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.

NOTE: The *Registry of Toxic Effects of Chemical Substances* published by the National Institute for Occupational Safety and Health indicates whether a chemical has been found by NTP or IARC to be a potential carcinogen.

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

(i) 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;

(ii) 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 paragraph (d)(4) of this section;

(iii) If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the chemical manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and,

(iv) If the chemical 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 OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations, the mixture shall be assumed to present the same hazard.

(6) Chemical manufacturers, importers, or employers evaluating chemicals shall describe in writing the procedures they use to determine the hazards of the chemical they evaluate. The written procedures are to be made available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director. The written description may be incorporated into the written hazard communication program required under paragraph (e) of this section.

(e) *Written hazard communication program.* (1) Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section 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:

(i) A list of the hazardous chemicals 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); and,

(ii) 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 chemicals contained in unlabeled pipes in their work areas.

(2) *Multi-employer workplaces.* Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:

(i) The methods the employer will use to provide the other employer(s) on-site access to material safety data sheets for each hazardous chemical the

other employer(s)' employees may be exposed to while working;

(ii) 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,

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

(3) The employer may rely on an existing hazard communication program to comply with these requirements, provided that it meets the criteria established in this paragraph (e).

(4) The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.20 (e).

(5) Where employees must travel between workplaces during a workshift, *i.e.*, their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.

(f) *Labels and other forms of warning.* (1) The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked with the following information:

(i) Identity of the hazardous chemical(s);

(ii) Appropriate hazard warnings; and

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

(2)(i) For solid metal (such as a steel beam or a metal casting), solid wood, or plastic items that are not exempted as articles due to their downstream use, or shipments of whole grain, 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;

(ii) 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; and,

(iii) This exception to requiring labels on every container of hazardous chemicals is only for the solid material itself, and does not apply to hazardous chemicals used in conjunction with, or known to be present with, the material and to which employees handling the items in transit may be exposed (for example, cutting fluids or pesticides in grains).

(3) Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 *et seq.*) and regulations issued under that Act by the Department of Transportation.

(4) If the hazardous chemical is regulated by OSHA in a substance-specific health standard, the chemical 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.

(5) Except as provided in paragraphs (f)(6) and (f)(7) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the following information:

(i) Identity of the hazardous chemical(s) contained therein; and,

(ii) Appropriate hazard warnings, or alternatively, words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

(6) 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 paragraph (f)(5) of this section to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each work shift.

(7) The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. For purposes of this section, drugs which are dispensed by a pharmacy to a health care provider for direct administration to a patient are exempted from labeling.

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

(9) 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.

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

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

(g) *Material safety data sheets.* (1) Chemical manufacturers and importers shall obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Employers shall have a material safety data sheet in the workplace for each hazardous chemical which they 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:

(i) The identity used on the label, and, except as provided for in paragraph (i) of this section on trade secrets:

(A) If the hazardous chemical is a single substance, its chemical and common name(s);

(B) If the hazardous chemical is a mixture which has been tested as a whole to determine its hazards, the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or,

(C) If the hazardous chemical is a mixture which has not been tested as a whole:

(*1*) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens under paragraph (d) of this section shall be listed if the concentrations are 0.1% or greater; and,

(*2*) The chemical and common name(s) of all ingredients which have been determined to be health hazards, and 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 risk to employees; and,

(*3*) The chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;

(ii) Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);

(iii) The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;

(iv) The health hazards of the hazardous chemical, including signs and

symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical;

(v) The primary route(s) of entry;

(vi) The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the material safety data sheet, where available;

(vii) Whether the hazardous chemical 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;

(viii) Any generally applicable precautions for safe handling and use which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks;

(ix) Any generally applicable control measures which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, such as appropriate engineering controls, work practices, or personal protective equipment;

(x) Emergency and first aid procedures;

(xi) The date of preparation of the material safety data sheet or the last change to it; and,

(xii) The name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

(3) If no relevant information is found for any given category on the material safety data sheet, the chemical manufacturer, importer or employer preparing the material safety data sheet shall mark it to indicate that no applicable information was found.

(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 chemical manufacturer, importer or employer may prepare one material safety data sheet to apply to all of these similar mixtures.

(5) The chemical 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 chemical manufacturer, importer or employer preparing the material safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the material safety data sheet within three months. If the chemical is not currently being produced or imported the chemical manufacturer or importer shall add the information to the material safety data sheet before the chemical is introduced into the workplace again.

(6)(i) Chemical manufacturers or importers shall ensure that distributors and employers 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;

(ii) The chemical manufacturer or importer shall either provide material safety data sheets with the shipped containers or send them to the distributor or employer prior to or at the time of the shipment;

(iii) If the material safety data sheet is not provided with a shipment that has been labeled as a hazardous chemical, the distributor or employer shall obtain one from the chemical manufacturer or importer as soon as possible; and,

(iv) The chemical manufacturer or importer shall also provide distributors or employers with a material safety data sheet upon request.

(7)(i) Distributors shall ensure that material safety data sheets, and updated information, are provided to other distributors and employers with their initial shipment and with the

first shipment after a material safety data sheet is updated;

(ii) The distributor shall either provide material safety data sheets with the shipped containers, or send them to the other distributor or employer prior to or at the time of the shipment;

(iii) Retail distributors selling hazardous chemicals to employers having a commercial account shall provide a material safety data sheet to such employers upon request, and shall post a sign or otherwise inform them that a material safety data sheet is available;

(iv) Wholesale distributors selling hazardous chemicals to employers over-the-counter may also provide material safety data sheets upon the request of the employer at the time of the over-the-counter purchase, and shall post a sign or otherwise inform such employers that a material safety data sheet is available;

(v) If an employer without a commercial account purchases a hazardous chemical from a retail distributor not required to have material safety data sheets on file (*i.e.*, the retail distributor does not have commercial accounts and does not use the materials), the retail distributor shall provide the employer, upon request, with the name, address, and telephone number of the chemical manufacturer, importer, or distributor from which a material safety data sheet can be obtained;

(vi) Wholesale distributors shall also provide material safety data sheets to employers or other distributors upon request; and,

(vii) Chemical manufacturers, importers, and distributors need not provide material safety data sheets to retail distributors that have informed them that the retail distributor does not sell the product to commercial accounts or open the sealed container to use it in their own workplaces.

(8) The employer shall maintain in the workplace copies of the required material safety data sheets for each hazardous chemical, 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 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 chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous chemicals. However, the employer shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in in their work area(s).

(11) Material safety data sheets shall also be made readily available, upon request, to designated representatives and to the Assistant Secretary, in accordance with the requirements of 29 CFR 1910.20(e). The Director shall also be given access to material safety data sheets in the same manner.

(h) *Employee information and training.* (1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (*e.g.*, flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.

(2) *Information.* Employees shall be informed of:

(i) The requirements of this section;

(ii) Any operations in their work area where hazardous chemicals are present; and,

(iii) The location and availability of the written hazard communication program, including the required list(s) of

hazardous chemicals, and material safety data sheets required by this section.

(3) *Training.* Employee training shall include at least:

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

(ii) The physical and health hazards of the chemicals in the work area;

(iii) 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; and,

(iv) 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.

(i) *Trade secrets.* (1) The chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name and other specific identification of a hazardous chemical, from the material safety data sheet, provided that:

(i) The claim that the information withheld is a trade secret can be supported;

(ii) Information contained in the material safety data sheet concerning the properties and effects of the hazardous chemical is disclosed;

(iii) The material safety data sheet indicates that the specific chemical identity is being withheld as a trade secret; and,

(iv) The specific chemical identity is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of this paragraph.

(2) Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous chemical is necessary for emergency or first-aid treatment, the chemical manufacturer, importer, or employer shall immediately disclose the specific chemical identity of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The chemical manufacturer, importer, or employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of paragraphs (i) (3) and (4) of this section, as soon as circumstances permit.

(3) In non-emergency situations, a chemical manufacturer, importer, or employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under paragraph (i)(1) of this section, to a health professional (i.e. physician, industrial hygienist, toxicologist, epidemiologist, or occupational health nurse) providing medical or other occupational health services to exposed employee(s), and to employees or designated representatives, if:

(i) The request is in writing;

(ii) The request describes with reasonable detail one or more of the following occupational health needs for the information:

(A) To assess the hazards of the chemicals to which employees will be exposed;

(B) To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels;

(C) To conduct pre-assignment or periodic medical surveillance of exposed employees;

(D) To provide medical treatment to exposed employees;

(E) To select or assess appropriate personal protective equipment for exposed employees;

(F) To design or assess engineering controls or other protective measures for exposed employees; and,

(G) To conduct studies to determine the health effects of exposure.

(iii) 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 to the health professional, employee, or designated representative, would not satisfy the

purposes described in paragraph (i)(3)(ii) of this section:

(A) The properties and effects of the chemical;

(B) Measures for controlling workers' exposure to the chemical;

(C) Methods of monitoring and analyzing worker exposure to the chemical; and,

(D) Methods of diagnosing and treating harmful exposures to the chemical;

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

(v) The health professional, and the employer or contractor of the services of the health professional (i.e. downstream employer, labor organization, or individual employee), employee, 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 need(s) asserted and agree not to release the information under any circumstances other than to OSHA, as provided in paragraph (i)(6) of this section, except as authorized by the terms of the agreement or by the chemical manufacturer, importer, or employer.

(4) The confidentiality agreement authorized by paragraph (i)(3)(iv) of this section:

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

(ii) 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,

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

(7) If the chemical manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity, the denial must:

(i) Be provided to the health professional, employee, or designated representative, within thirty days of the request;

(ii) Be in writing;

(iii) Include evidence to support the claim that the specific chemical identity is a trade secret;

(iv) State the specific reasons why the request is being denied; and,

(v) Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the specific chemical identity.

(8) The health professional, employee, or designated representative whose request for information is denied under paragraph (i)(3) of this section may refer the request and the written denial of the request to OSHA for consideration.

(9) When a health professional, employee, or designated representative refers the denial to OSHA under paragraph (i)(8) of this section, OSHA shall consider the evidence to determine if:

(i) The chemical manufacturer, importer, or employer has supported the claim that the specific chemical identity is a trade secret;

(ii) The health professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and,

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

(10)(i) If OSHA determines that the specific chemical identity requested under paragraph (i)(3) of this section 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, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the chemical manufacturer, importer,

or employer will be subject to citation by OSHA.

(ii) If a chemical manufacturer, importer, or employer demonstrates to OSHA that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret specific chemical identity, the Assistant Secretary 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 services are provided without an undue risk of harm to the chemical manufacturer, importer, or employer.

(11) If a citation for a failure to release specific chemical identity information is contested by the chemical manufacturer, importer, or employer, the matter will be adjudicated before the Occupational Safety and Health Review Commission in accordance with the Act's enforcement scheme and the applicable Commission rules of procedure. In accordance with the Commission rules, when a chemical manufacturer, importer, or employer continues to withhold the information during the contest, the Administrative Law Judge may review the citation and supporting documentation *in camera* or issue appropriate orders to protect the confidentiality of such matters.

(12) Notwithstanding the existence of a trade secret claim, a chemical manufacturer, importer, or employer shall, upon request, disclose to the Assistant Secretary any information which this section requires the chemical manufacturer, importer, or 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 Assistant Secretary so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

(13) Nothing in this paragraph shall be construed as requiring the disclosure under any circumstances of process or percentage of mixture information which is a trade secret.

(j) *Effective dates.* Chemical manufacturers, importers, distributors, and employers shall be in compliance with all provisions of this section by March 11, 1994.

NOTE: The effective date of the clarification that the exemption of wood and wood products from the Hazard Communication standard in paragraph (b)(6)(iv) only applies to wood and 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, and that the exemption does not apply to wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut generating dust has been stayed from March 11, 1994 to August 11, 1994.

## APPENDIX A TO § 1910.1200—HEALTH HAZARD DEFINITIONS (MANDATORY)

Although safety hazards related to the physical characteristics of a chemical 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 non-occupationally 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 chemicals 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 (Z129.1–1988)—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 chemical 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 chemicals which meet any of the following definitions, as determined by the criteria set forth in Appendix B are health hazards. However, this is not intended to be an exclusive categorization scheme. If there are available scientific data that involve other animal species or test methods, they must also be evaluated to determine the applicability of the HCS.7

1. *Carcinogen:* A chemical is considered to be a carcinogen if:

(a) It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or

(b) It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or,

(c) It is regulated by OSHA as a carcinogen.

2. *Corrosive:* A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical 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 at the site of contact following an exposure period of four hours. This term shall not refer to action on inanimate surfaces.

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

(a) A chemical that has a median lethal dose ($LD_{50}$) 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 chemical that has a median lethal dose ($LD_{50}$) 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 chemical that has a median lethal concentration ($LC_{50}$) 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 chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 CFR 1500.41 for four hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A chemical is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.

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

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

(a) A chemical that has a median lethal dose ($LD_{50}$) 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 chemical that has a median lethal dose ($LD_{50}$) 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 chemical that has a median lethal concentration ($LC_{50}$) 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

APPENDIX C TO § 1910.1200 [RESERVED]

APPENDIX D TO § 1910.1200—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 §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 a price list or catalogue, or a list of 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 known 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 a 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 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 rewarding or otherwise encouraging the development of secret processes or devices. The protection is merely against 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 is subject to liability under the rule stated in this Section. Thus, if the secret consists of a device or process which is a novel invention, 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.

APPENDIX E TO § 1910.1200—(ADVISORY)—GUIDELINES FOR EMPLOYER COMPLIANCE

The Hazard Communication Standard (HCS) is based on a simple concept—that employees have both a need and a right to know the hazards and identities of the chemicals they are exposed to when working. They also need to know what protective measures are available to prevent adverse effects from occurring. The HCS is designed to provide employees with the information they need.

Knowledge acquired under the HCS will help employers provide safer workplaces for their employees. When employers have information about the chemicals being used, they

can take steps to reduce exposures, substitute less hazardous materials, and establish proper work practices. These efforts will help prevent the occurrence of work-related illnesses and injuries caused by chemicals.

The HCS addresses the issues of evaluating and communicating hazards to workers. Evaluation of chemical hazards involves a number of technical concepts, and is a process that requires the professional judgment of experienced experts. That's why the HCS is designed so that employers who simply use chemicals, rather than produce or import them, are not required to evaluate the hazards of those chemicals. Hazard determination is the responsibility of the producers and importers of the materials. Producers and importers of chemicals are then required to provide the hazard information to employers that purchase their products.

Employers that don't produce or import chemicals need only focus on those parts of the rule that deal with establishing a workplace program and communicating information to their workers. This appendix is a general guide for such employers to help them determine what's required under the rule. It does not supplant or substitute for the regulatory provisions, but rather provides a simplified outline of the steps an average employer would follow to meet those requirements.

*1. Becoming Familiar With The Rule.*

OSHA has provided a simple summary of the HCS in a pamphlet entitled "Chemical Hazard Communication," OSHA Publication Number 3084. Some employers prefer to begin to become familiar with the rule's requirements by reading this pamphlet. A copy may be obtained from your local OSHA Area Office, or by contacting the OSHA Publications Office at (202) 523–9667.

The standard is long, and some parts of it are technical, but the basic concepts are simple. In fact, the requirements reflect what many employers have been doing for years. You may find that you are already largely in compliance with many of the provisions, and will simply have to modify your existing programs somewhat. If you are operating in an OSHA-approved State Plan State, you must comply with the State's requirements, which may be different than those of the Federal rule. Many of the State Plan States had hazard communication or "right-to-know" laws prior to promulgation of the Federal rule. Employers in State Plan States should contact their State OSHA offices for more information regarding applicable requirements.

The HCS requires information to be prepared and transmitted regarding all hazardous chemicals. The HCS covers both physical hazards (such as flammability), and health hazards (such as irritation, lung damage, and cancer). Most chemicals used in the workplace have some hazard potential, and thus will be covered by the rule.

One difference between this rule and many others adopted by OSHA is that this one is performance-oriented. That means that you have the flexibility to adapt the rule to the needs of your workplace, rather than having to follow specific, rigid requirements. It also means that you have to exercise more judgment to implement an appropriate and effective program.

The standard's design is simple. Chemical manufacturers and importers must evaluate the hazards of the chemicals they produce or import. Using that information, they must then prepare labels for containers, and more detailed technical bulletins called material safety data sheets (MSDS).

Chemical manufacturers, importers, and distributors of hazardous chemicals are all required to provide the appropriate labels and material safety data sheets to the employers to which they ship the chemicals. The information is to be provided automatically. Every container of hazardous chemicals you receive must be labeled, tagged, or marked with the required information. Your suppliers must also send you a properly completed material safety data sheet (MSDS) at the time of the first shipment of the chemical, and with the next shipment after the MSDS is updated with new and significant information about the hazards.

You can rely on the information received from your suppliers. You have no independent duty to analyze the chemical or evaluate the hazards of it.

Employers that "use" hazardous chemicals must have a program to ensure the information is provided to exposed employees. "Use" means to package, handle, react, or transfer. This is an intentionally broad scope, and includes any situation where a chemical is present in such a way that employees may be exposed under normal conditions of use or in a foreseeable emergency.

The requirements of the rule that deal specifically with the hazard communication program are found in this section in paragraphs (e), written hazard communication program; (f), labels and other forms of warning; (g), material safety data sheets; and (h), employee information and training. The requirements of these paragraphs should be the focus of your attention. Concentrate on becoming familiar with them, using paragraphs (b), scope and application, and (c), definitions, as references when needed to help explain the provisions.

There are two types of work operations where the coverage of the rule is limited. These are laboratories and operations where chemicals are only handled in sealed containers (*e.g.*, a warehouse). The limited provisions for these workplaces can be found in paragraph (b) of this section, scope and application. Basically, employers having these

types of work operations need only keep labels on containers as they are received; maintain material safety data sheets that are received, and give employees access to them; and provide information and training for employees. Employers do not have to have written hazard communication programs and lists of chemicals for these types of operations.

The limited coverage of laboratories and sealed container operations addresses the obligation of an employer to the workers in the operations involved, and does not affect the employer's duties as a distributor of chemicals. For example, a distributor may have warehouse operations where employees would be protected under the limited sealed container provisions. In this situation, requirements for obtaining and maintaining MSDSs are limited to providing access to those received with containers while the substance is in the workplace, and requesting MSDSs when employees request access for those not received with the containers. However, as a distributor of hazardous chemicals, that employer will still have responsibilities for providing MSDSs to downstream customers at the time of the first shipment and when the MSDS is updated. Therefore, although they may not be required for the employees in the work operation, the distributor may, nevertheless, have to have MSDSs to satisfy other requirements of the rule.

*2. Identify Responsible Staff*

Hazard communication is going to be a continuing program in your facility. Compliance with the HCS is not a "one shot deal." In order to have a successful program, it will be necessary to assign responsibility for both the initial and ongoing activities that have to be undertaken to comply with the rule. In some cases, these activities may already be part of current job assignments. For example, site supervisors are frequently responsible for on-the-job training sessions. Early identification of the responsible employees, and involvement of them in the development of your plan of action, will result in a more effective program design. Evaluation of the effectiveness of your program will also be enhanced by involvement of affected employees.

For any safety and health program, success depends on commitment at every level of the organization. This is particularly true for hazard communication, where success requires a change in behavior. This will only occur if employers understand the program, and are committed to its success, and if employees are motivated by the people presenting the information to them.

*3. Identify Hazardous Chemicals in the Workplace.*

The standard requires a list of hazardous chemicals in the workplace as part of the written hazard communication program. The list will eventually serve as an inventory of everything for which an MSDS must be maintained. At this point, however, preparing the list will help you complete the rest of the program since it will give you some idea of the scope of the program required for compliance in your facility.

The best way to prepare a comprehensive list is to survey the workplace. Purchasing records may also help, and certainly employers should establish procedures to ensure that in the future purchasing procedures result in MSDSs being received before a material is used in the workplace.

The broadest possible perspective should be taken when doing the survey. Sometimes people think of "chemicals" as being only liquids in containers. The HCS covers chemicals in all physical forms—liquids, solids, gases, vapors, fumes, and mists—whether they are "contained" or not. The hazardous nature of the chemical and the potential for exposure are the factors which determine whether a chemical is covered. If it's not hazardous, it's not covered. If there is no potential for exposure (e.g., the chemical is inextricably bound and cannot be released), the rule does not cover the chemical.

Look around. Identify chemicals in containers, including pipes, but also think about chemicals generated in the work operations. For example, welding fumes, dusts, and exhaust fumes are all sources of chemical exposures. Read labels provided by suppliers for hazard information. Make a list of all chemicals in the workplace that are potentially hazardous. For your own information and planning, you may also want to note on the list the location(s) of the products within the workplace, and an indication of the hazards as found on the label. This will help you as you prepare the rest of your program.

Paragraph (b) of this section, scope and application, includes exemptions for various chemicals or workplace situations. After compiling the complete list of chemicals, you should review paragraph (b) of this section to determine if any of the items can be eliminated from the list because they are exempted materials. For example, food, drugs, and cosmetics brought into the workplace for employee consumption are exempt. So rubbing alcohol in the first aid kit would not be covered.

Once you have compiled as complete a list as possible of the potentially hazardous chemicals in the workplace, the next step is to determine if you have received material safety data sheets for all of them. Check your files against the inventory you have just compiled. If any are missing, contact

your supplier and request one. It is a good idea to document these requests, either by copy of a letter or a note regarding telephone conversations. If you have MSDSs for chemicals that are not on your list, figure out why. Maybe you don't use the chemical anymore. Or maybe you missed it in your survey. Some suppliers do provide MSDSs for products that are not hazardous. These do not have to be maintained by you.

You should not allow employees to use any chemicals for which you have not received an MSDS. The MSDS provides information you need to ensure proper protective measures are implemented prior to exposure.

*4. Preparing and Implementing a Hazard Communication Program*

All workplaces where employees are exposed to hazardous chemicals must have a written plan which describes how the standard will be implemented in that facility. Preparation of a plan is not just a paper exercise—all of the elements must be implemented in the workplace in order to be in compliance with the rule. See paragraph (e) of this section for the specific requirements regarding written hazard communication programs. The only work operations which do not have to comply with the written plan requirements are laboratories and work operations where employees only handle chemicals in sealed containers. See paragraph (b) of this section, scope and application, for the specific requirements for these two types of workplaces.

The plan does not have to be lengthy or complicated. It is intended to be a blueprint for implementation of your program—an assurance that all aspects of the requirements have been addressed.

Many trade associations and other professional groups have provided sample programs and other assistance materials to affected employers. These have been very helpful to many employers since they tend to be tailored to the particular industry involved. You may wish to investigate whether your industry trade groups have developed such materials.

Although such general guidance may be helpful, you must remember that the written program has to reflect what you are doing in your workplace. Therefore, if you use a generic program it must be adapted to address the facility it covers. For example, the written plan must list the chemicals present at the site, indicate who is to be responsible for the various aspects of the program in your facility, and indicate where written materials will be made available to employees.

If OSHA inspects your workplace for compliance with the HCS, the OSHA compliance officer will ask to see your written plan at the outset of the inspection. In general, the following items will be considered in evaluating your program.

The written program must describe how the requirements for labels and other forms of warning, material safety data sheets, and employee information and training, are going to be met in your facility. The following discussion provides the type of information compliance officers will be looking for to decide whether these elements of the hazard communication program have been properly addressed:

*A. Labels and Other Forms of Warning*

In-plant containers of hazardous chemicals must be labeled, tagged, or marked with the identity of the material and appropriate hazard warnings. Chemical manufacturers, importers, and distributors are required to ensure that every container of hazardous chemicals they ship is appropriately labeled with such information and with the name and address of the producer or other responsible party. Employers purchasing chemicals can rely on the labels provided by their suppliers. If the material is subsequently transferred by the employer from a labeled container to another container, the employer will have to label that container unless it is subject to the portable container exemption. See paragraph (f) of this section for specific labeling requirements.

The primary information to be obtained from an OSHA-required label is an identity for the material, and appropriate hazard warnings. The identity is any term which appears on the label, the MSDS, and the list of chemicals, and thus links these three sources of information. The identity used by the supplier may be a common or trade name ("Black Magic Formula"), or a chemical name (1,1,1,-trichloroethane). The hazard warning is a brief statement of the hazardous effects of the chemical ("flammable," "causes lung damage"). Labels frequently contain other information, such as precautionary measures ("do not use near open flame"), but this information is provided voluntarily and is not required by the rule. Labels must be legible, and prominently displayed. There are no specific requirements for size or color, or any specified text.

With these requirements in mind, the compliance officer will be looking for the following types of information to ensure that labeling will be properly implemented in your facility:

1. Designation of person(s) responsible for ensuring labeling of in-plant containers;
2. Designation of person(s) responsible for ensuring labeling of any shipped containers;
3. Description of labeling system(s) used;
4. Description of written alternatives to labeling of in-plant containers (if used); and,
5. Procedures to review and update label information when necessary.

Employers that are purchasing and using hazardous chemicals—rather than producing

or distributing them—will primarily be concerned with ensuring that every purchased container is labeled. If materials are transferred into other containers, the employer must ensure that they are labeled as well, unless they fall under the portable container exemption (paragraph (f)(7) of this section). In terms of labeling systems, you can simply choose to use the labels provided by your suppliers on the containers. These will generally be verbal text labels, and do not usually include numerical rating systems or symbols that require special training. The most important thing to remember is that this is a continuing duty—all in-plant containers of hazardous chemicals must always be labeled. Therefore, it is important to designate someone to be responsible for ensuring that the labels are maintained as required on the containers in your facility, and that newly purchased materials are checked for labels prior to use.

*B. Material Safety Data Sheets*

Chemical manufacturers and importers are required to obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Distributors are responsible for ensuring that their customers are provided a copy of these MSDSs. Employers must have an MSDS for each hazardous chemical which they use. Employers may rely on the information received from their suppliers. The specific requirements for material safety data sheets are in paragraph (g) of this section.

There is no specified format for the MSDS under the rule, although there are specific information requirements. OSHA has developed a non-mandatory format, OSHA Form 174, which may be used by chemical manufacturers and importers to comply with the rule. The MSDS must be in English. You are entitled to receive from your supplier a data sheet which includes all of the information required under the rule. If you do not receive one automatically, you should request one. If you receive one that is obviously inadequate, with, for example, blank spaces that are not completed, you should request an appropriately completed one. If your request for a data sheet or for a corrected data sheet does not produce the information needed, you should contact your local OSHA Area Office for assistance in obtaining the MSDS.

The role of MSDSs under the rule is to provide detailed information on each hazardous chemical, including its potential hazardous effects, its physical and chemical characteristics, and recommendations for appropriate protective measures. This information should be useful to you as the employer responsible for designing protective programs, as well as to the workers. If you are not familiar with material safety data sheets and with chemical terminology, you may need to learn to use them yourself. A glossary of MSDS terms may be helpful in this regard. Generally speaking, most employers using hazardous chemicals will primarily be concerned with MSDS information regarding hazardous effects and recommended protective measures. Focus on the sections of the MSDS that are applicable to your situation.

MSDSs must be readily accessible to employees when they are in their work areas during their workshifts. This may be accomplished in many different ways. You must decide what is appropriate for your particular workplace. Some employers keep the MSDSs in a binder in a central location (*e.g.*, in the pick-up truck on a construction site). Others, particularly in workplaces with large numbers of chemicals, computerize the information and provide access through terminals. As long as employees can get the information when they need it, any approach may be used. The employees must have access to the MSDSs themselves—simply having a system where the information can be read to them over the phone is only permitted under the mobile worksite provision, paragraph (g)(9) of this section, when employees must travel between workplaces during the shift. In this situation, they have access to the MSDSs prior to leaving the primary worksite, and when they return, so the telephone system is simply an emergency arrangement.

In order to ensure that you have a current MSDS for each chemical in the plant as required, and that employee access is provided, the compliance officers will be looking for the following types of information in your written program:

1. Designation of person(s) responsible for obtaining and maintaining the MSDSs;

2. How such sheets are to be maintained in the workplace (*e.g.*, in notebooks in the work area(s) or in a computer with terminal access), and how employees can obtain access to them when they are in their work area during the work shift;

3. Procedures to follow when the MSDS is not received at the time of the first shipment;

4. For producers, procedures to update the MSDS when new and significant health information is found; and,

5. Description of alternatives to actual data sheets in the workplace, if used.

For employers using hazardous chemicals, the most important aspect of the written program in terms of MSDSs is to ensure that someone is responsible for obtaining and maintaining the MSDSs for every hazardous chemical in the workplace. The list of hazardous chemicals required to be maintained as part of the written program will serve as an inventory. As new chemicals are purchased, the list should be updated. Many companies have found it convenient to include on their purchase orders the name and

address of the person designated in their company to receive MSDSs.

*C. Employee Information and Training*

Each employee who may be "exposed" to hazardous chemicals when working must be provided information and trained prior to initial assignment to work with a hazardous chemical, and whenever the hazard changes. "Exposure" or "exposed" under the rule means that "an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.) and includes potential (*e.g.*, accidental or possible) exposure." See paragraph (h) of this section for specific requirements. Information and training may be done either by individual chemical, or by categories of hazards (such as flammability or carcinogenicity). If there are only a few chemicals in the workplace, then you may want to discuss each one individually. Where there are large numbers of chemicals, or the chemicals change frequently, you will probably want to train generally based on the hazard categories (*e.g.*, flammable liquids, corrosive materials, carcinogens). Employees will have access to the substance-specific information on the labels and MSDSs.

Information and training is a critical part of the hazard communication program. Information regarding hazards and protective measures are provided to workers through written labels and material safety data sheets. However, through effective information and training, workers will learn to read and understand such information, determine how it can be obtained and used in their own workplaces, and understand the risks of exposure to the chemicals in their workplaces as well as the ways to protect themselves. A properly conducted training program will ensure comprehension and understanding. It is not sufficient to either just read material to the workers, or simply hand them material to read. You want to create a climate where workers feel free to ask questions. This will help you to ensure that the information is understood. You must always remember that the underlying purpose of the HCS is to reduce the incidence of chemical source illnesses and injuries. This will be accomplished by modifying behavior through the provision of hazard information and information about protective measures. If your program works, you and your workers will better understand the chemical hazards within the workplace. The procedures you establish regarding, for example, purchasing, storage, and handling of these chemicals will improve, and thereby reduce the risks posed to employees exposed to the chemical hazards involved. Furthermore, your workers' comprehension will also be increased, and proper work practices will be followed in your workplace.

If you are going to do the training yourself, you will have to understand the material and be prepared to motivate the workers to learn. This is not always an easy task, but the benefits are worth the effort. More information regarding appropriate training can be found in OSHA Publication No. 2254 which contains voluntary training guidelines prepared by OSHA's Training Institute. A copy of this document is available from OSHA's Publications Office at (202) 219-4667.

In reviewing your written program with regard to information and training, the following items need to be considered:

1. Designation of person(s) responsible for conducting training;
2. Format of the program to be used (audiovisuals, classroom instruction, etc.);
3. Elements of the training program (should be consistent with the elements in paragraph (h) of this section); and,
4. Procedure to train new employees at the time of their initial assignment to work with a hazardous chemical, and to train employees when a new hazard is introduced into the workplace.

The written program should provide enough details about the employer's plans in this area to assess whether or not a good faith effort is being made to train employees. OSHA does not expect that every worker will be able to recite all of the information about each chemical in the workplace. In general, the most important aspects of training under the HCS are to ensure that employees are aware that they are exposed to hazardous chemicals, that they know how to read and use labels and material safety data sheets, and that, as a consequence of learning this information, they are following the appropriate protective measures established by the employer. OSHA compliance officers will be talking to employees to determine if they have received training, if they know they are exposed to hazardous chemicals, and if they know where to obtain substance-specific information on labels and MSDSs.

The rule does not require employers to maintain records of employee training, but many employers choose to do so. This may help you monitor your own program to ensure that all employees are appropriately trained. If you already have a training program, you may simply have to supplement it with whatever additional information is required under the HCS. For example, construction employers that are already in compliance with the construction training standard (29 CFR 1926.21) will have little extra training to do.

An employer can provide employees information and training through whatever means are found appropriate and protective. Although there would always have to be

some training on-site (such as informing employees of the location and availability of the written program and MSDSs), employee training may be satisfied in part by general training about the requirements of the HCS and about chemical hazards on the job which is provided by, for example, trade associations, unions, colleges, and professional schools. In addition, previous training, education and experience of a worker may relieve the employer of some of the burdens of informing and training that worker. Regardless of the method relied upon, however, the employer is always ultimately responsible for ensuring that employees are adequately trained. If the compliance officer finds that the training is deficient, the employer will be cited for the deficiency regardless of who actually provided the training on behalf of the employer.

*D. Other Requirements*

In addition to these specific items, compliance officers will also be asking the following questions in assessing the adequacy of the program:

Does a list of the hazardous chemicals exist in each work area or at a central location?

Are methods the employer will use to inform employees of the hazards of non-routine tasks outlined?

Are employees informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas?

On multi-employer worksites, has the employer provided other employers with information about labeling systems and precautionary measures where the other employers have employees exposed to the initial employer's chemicals?

Is the written program made available to employees and their designated representatives?

If your program adequately addresses the means of communicating information to employees in your workplace, and provides answers to the basic questions outlined above, it will be found to be in compliance with the rule.

*5. Checklist for Compliance*

The following checklist will help to ensure you are in compliance with the rule:

Obtained a copy of the rule. _____
Read and understood the requirements. _____
Assigned responsibility for tasks. _____
Prepared an inventory of chemicals. _____
Ensured containers are labeled. _____
Obtained MSDS for each chemical. _____
Prepared written program. _____
Made MSDSs available to workers. _____
Conducted training of workers. _____
Established procedures to maintain current program. _____
Established procedures to evaluate effectiveness. _____

*6. Further Assistance*

If you have a question regarding compliance with the HCS, you should contact your local OSHA Area Office for assistance. In addition, each OSHA Regional Office has a Hazard Communication Coordinator who can answer your questions. Free consultation services are also available to assist employers, and information regarding these services can be obtained through the Area and Regional offices as well.

The telephone number for the OSHA office closest to you should be listed in your local telephone directory. If you are not able to obtain this information, you may contact OSHA's Office of Information and Consumer Affairs at (202) 219-8151 for further assistance in identifying the appropriate contacts.

[59 FR 6170, Feb. 9, 1994, as amended at 59 FR 17479, Apr. 13, 1994; 59 FR 65948, Dec. 22, 1994; 61 FR 9245, Mar. 7, 1996]

## §1910.1201 Retention of DOT markings, placards and labels.

(a) Any employer who receives a package of hazardous material which is required to be marked, labeled or placarded in accordance with the U. S. Department of Transportation's Hazardous Materials Regulations (49 CFR Parts 171 through 180) shall retain those markings, labels and placards on the package until the packaging is sufficiently cleaned of residue and purged of vapors to remove any potential hazards.

(b) Any employer who receives a freight container, rail freight car, motor vehicle, or transport vehicle that is required to be marked or placarded in accordance with the Hazardous Materials Regulations shall retain those markings and placards on the freight container, rail freight car, motor vehicle or transport vehicle until the hazardous materials which require the marking or placarding are sufficiently removed to prevent any potential hazards.

(c) Markings, placards and labels shall be maintained in a manner that ensures that they are readily visible.

(d) For non-bulk packages which will not be reshipped, the provisions of this section are met if a label or other acceptable marking is affixed in accordance with the Hazard Communication Standard (29 CFR 1910.1200).

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