

## 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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#### §339. The Hazardous Substances List.

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(a) Purpose. The following is the List of Hazardous Substances prepared by the Director pursuant to Labor Code Section 6380. The substances on this list are subject to the provisions of Labor Code Sections 6360 through 6399.7 and Section 5194 in Title 8 of the California Code of Regulations.

(b) Definitions.

(1) CAS number means the unique identification number assigned by the Chemical Abstracts Service to specific chemical substances.

(2) Source means the sublists which the Director used in preparing the Hazardous Substances List pursuant to Labor Code 6382. The source(s) of each hazardous substance on the list is designated by a number in the middle column of the list. The numbers represent the following sources: (1) International Agency for Research on Cancer (IARC); (2) Environmental Protection Agency lists pursuant to the Clean Air and Clean Water Acts; **(3) General Industry Safety Order Section 5155**; (4) California Department of Pesticide Regulation's list of Restricted Materials; (5) Information Alerts put out by the Hazard Evaluation and Information Service pursuant to Labor Code Section 147.2.

(3) Synonym means an entry in the list which refers to another entry. This type of entry may identify alternate names for a given substance or associate a particular substance with a class of substances. Synonyms appear in the list as entries of the form: Substance x; see Substance y. The synonym entries included in this list are not all inclusive.

#### HAZARDOUS SUBSTANCES LIST \*

\* An MSDS is not required for tapes, films, or extruded, molded or coated products containing listed hazardous substances in bound form except when these substances can be released in the workplace under normal conditions of work or in reasonably foreseeable emergencies resulting from workplace operations.

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CAS No.	Source	Substance	Footnotes
110827	2, 3	Cyclohexane	
108930	3	Cyclohexanol	
<b>108941</b>	<b>3</b>	<b>Cyclohexanone</b>	
110838	3	Cyclohexene	
66819	4, 5	Cycloheximide	
108918	3	Cyclohexylamine	
121824	3	Cyclonite; see Cyclotrimethylenetrinitramine	
542927	3	Cyclopentadiene	
12079651	3	Cyclopentadienyltriocarbonyl manganese; see Manganese compounds	
287923	3	Cyclopentane	
27208373	1	Cyclopenta[c,d]pyrene	
50180	1	Cyclophosphamide	
6055192			
121824	3	Cyclotrimethylene-trinitramine	
13121705	3	Cyhexatin; see Tin compounds	
94757	2, 3, 4	2,4-D	
94111, 94791, 94804, 2		2,4-D esters (2,4-dichloro- phenoxyacetic acid esters)	
1320189, 1928387, 1928616, 1929733, 2971382, 25168267, 53467111			
94826	4	2,4-DB (2,4-dichloro- phenoxybutyric acid)	
72548	2, 4	DDD; see TDE	

#### FOOTNOTES FOR HAZARDOUS SUBSTANCE LIST

1. Refers to solutions greater than or equal to 10%. Exempt when present in food or beverages, such as vinegar, apple cider, and wine, regardless of concentration.

2. Refers to water-soluble salts only; all other salts are exempt.

**3. An MSDS must be provided under the following circumstances:**

a) The metal is supplied as a fine powder.

b) The metal is in welding or brazing rods.

c) The metal may be melted with the generation of toxic fume.

d) Under normal use, toxic dust or fume is likely to be generated by any manufacturing process.

4. Exempt when in bonded form or when antimony compounds cannot be released due to cutting, grinding, heating, etc.

5. Except:

- a) Exterior and interior coatings and laminating resins containing encapsulated asbestos fibers within such products.
  - b) Cold process asphalt roof coatings.
  - c) Non-friable encapsulated products such as floor tiles.
6. Any liquids; and products that could give rise to asphalt fume under normal conditions are included. Mechanical breakup of hardened asphalt surfaces is exempt.
  7. Exempt when used in foods and feeds as a preservative.
  8. Exempt except when present as free crystal/powder.
  9. Exempt when in solution.
  10. Exempt when in form where exposure to dust cannot occur.
  11. Products that could give rise to coal tar pitch volatiles during normal use are included.
  12. Exempt when part of a cured epoxy or rubber.
  13. Refers to solutions greater than or equal to 25%. Beverage alcohol (as defined by Sections 23004 and 23005 of the California Alcoholic Beverage Control Act) in any concentration is exempt.
  14. Exempt except when vapors or particulates are or can be formed due to work practices or procedures.
  15. Exempt except when present as a dust.
  16. Exempt when used as fuel.
  17. Exempt except when inhalable dust and/or particulates are present or are generated through use of the product.
  18. Refers to the water-soluble salts only; exempt when mixed in food or animal feed.
  19. Exempt except when inhalable dust is present or can be generated through use.
  20. Exempt when in mixture, suspension, or where inhalable dust or particles are not present or cannot be formed.
  21. Exempt except where mineral oil mists can be generated in the ordinary use of the products, e.g. cutting oils
  22. Occupational sources of ozone include, but are not limited to:
    - a) during oxidizing process of fine organic chemicals production (primarily ozolaic acid);
    - b) during operations involving high-intensity UV light (plasma torch operations, glass blowing, hot metal operations, photoengraving operations, use of mercury vapor lamps, direct copying machines, projecting equipment);

- c) during operations involving high voltage electrical equipment (spectrographic and fluorometric apparatus, electroplating operations, high-volt linear accelerators, and electrostatic precipitators);
- d) during operations involving ozonizing process in treatment of water, industrial waste, and sewage; during air purification;
- e) during drilling, cutting, and welding operations utilizing laser radiation;
- f) during bleaching operations (textiles, pulp, paper, waxes, starch, sugar, Teflon, and synthetic fibers), refining of mineral oils and their derivatives, processing of perfumes, vanillin, and camphor, aging and drying operations (wood, wines, whiskeys, varnishes, and printing inks);
- g) during food preserving operations for mold and bacteria control;
- h) during welding operations using inert gas shielded arc welding devices, bare wire arc welding; and
- i) during manufacturing production of ozone.

23. Includes benzanthracenes, benzopyrenes, benzofluoranthrene, chrysenes, dibenzanthracenes, and indenopyrenes.

24. Refers to smoke and fume products given off during soldering.

25. Exempt except when inhalable particulates are present or can be generated.

26. Silver compounds existing in stable emulsions or suspensions, as in photographic film, are exempt.

27. Applicable to cotton fiber for use in industries or operations covered by General Industry Safety Order 5219, Cotton Dust.

28. Exempt when present in motor oils at 2.5% or below. Zinc oxide is exempt except when present as dust or when generated as a fume. Zinc stearate is exempt except when present as dust.

29. Refers to solutions greater than or equal to 4%.

30. Refers to solutions greater than or equal to 3%.

31. Refers to any mixture containing 0.1% or greater of this substance.

32. Refers to any mixture containing 0.02% or greater inorganic arsenic.

33. Refers to any mixture containing 0.1% or greater EDB.

34. Exempt when encapsulated in a capsule which meets the definition of "Special Form Materials" prescribed in 49 CFR 173.403(z).

35. Applies to silica sand and silica flour, but naturally occurring dirt and sand which has not been increased in silica concentration by beneficiation are exempt.

36. Except butyl benzyl phthalate.

37. Exempt except when crystalline powder is being manufactured or being used.

38. Fibrous glass is a mechanical irritant. There is no present scientific evidence as to the existence of any other adverse health effect.

39. Except Copper phthalocyanine crudes and pigments.

NOTE: Authority cited: Sections 54, 55 and 6380, Labor Code; and 8 CCR Section 337. Reference: Sections 6380, 6380.5, 6382 and 6383, Labor Code.

#### HISTORY

1. New section (including Appendix A) filed 8-25-82; effective thirtieth day thereafter (Register 82, No. 35).

2. Amendment of Hazardous Substances List filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41)

3. Amendment of Hazardous Substances List and Appendix A filed 5-29-85; effective upon filing pursuant to Government Code section 11346.2(d) (Register 85, No. 24).

4. Editorial correction of Appendix A filed 6-12-85 (Register 85, No. 24).

5. Editorial correction of Appendix A column headings (Register 91, No. 23).

6. Repealer of subsection (b) and Appendix A, subsection relettering, new subsection (b)(3), new FOOTNOTE 39 and amendment of Hazardous Substances List and Note filed 2-16-93; operative 3-18-93 (Register 93, No. 8).

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