

## **OSHA Inspection Procedures for the Hazard Communication Standard**

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=1551](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1551)

### **Appendix C HAZARD EVALUATION PROCEDURES**

The hazard evaluation procedures required by the standard are performance-oriented. Basically, OSHA's concern is that the information on labels and data sheets, and in the training program, is adequate and accurate. Although specific procedures to follow and sources of consultation cannot be definitively established, general guidance will be provided herein. The hazard evaluation process can be characterized as a "tiered" approach -- the extent to which a chemical must be evaluated depends to a large degree upon the common knowledge regarding the chemical, whether its health effects are under review, and how prevalent it is in the workplace.

1. The first step for CSHOs evaluating chemicals is to determine whether the chemical is part of the "floor" of chemicals to be considered hazardous in all situations.

- a. The floor of chemicals consists of three sources:

- (1) Any substance for which OSHA has a permissible exposure limit (PEL) in 1910.1000, or a comprehensive substance-specific standard in Subpart Z. This includes any compound of such substances where OSHA would sample to determine compliance with the PEL.

- (2) Any substance for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a Threshold Limit Value (TLV) in the latest edition of their annual list. Any mixture or combination of these substances would also be included.

- (3) Any substance which the National Toxicology Program (NTP) or the International Agency for Research on Cancer (IARC) has found to be a suspect or confirmed carcinogen or which OSHA regulates as a carcinogen.

- b. Sources to generally establish hazards of the chemicals that are part of the floor of hazardous chemicals covered by the standard:

The OSHA Chemical Information Manual.

OSHA Instruction CPL 2-2.43A, October 20, 1987.

NIOSH/OSHA Occupational Health Guidelines.

Documentation for the Threshold Limit Values.

NTP Summary of the Annual Report on Carcinogens.

IARC Monographs.

In addition, the CSHOs should check the NIOSH Registry of Toxic Effects of Chemical Substances (RTECS) to see if any hazards are indicated which do not appear in these sources. If there are, further study should be done to evaluate the hazards. RTECS should never be considered a definitive source for establishing a hazard since it consists of data that has not been evaluated. It is, however, a useful screening resource.

2. The second step is to consult other generally available sources to see what has been published regarding the chemical. Patty's Industrial Hygiene and Toxicology would be one such source. OCIS contains a number of other chemical information sources. Material Safety Data Sheets available through information services would also be useful.
  3. The third step, for those chemicals where information is not readily available or where such available information is not complete, is to perform searches of bibliographic data

bases. In general, the National Library of Medicine (NLM) services should be used. These include the Toxicology Data Bank (TDB), TOXLINE, and MEDLARS. The information generated by these data bases should be evaluated using the criteria in Appendix B of the HCS; i.e., to qualify as an acceptable study, it must be conducted according to scientific principles (e.g., in animal studies, the number of subjects is adequate to do statistical analyses of the results; a control group is used, and the study must show statistically significant results indicating an adverse health effect). This evaluation obviously requires a subjective, professional assessment. Any questions should be referred to the Directorate of Compliance Programs, Office of Health Compliance Assistance (through the Regional Office), for assistance. In general, uncorroborated case reports and in vitro studies, such as Ames tests, are useful pieces of information, but not definitive findings of hazards. Animal studies involving species other than those indicated in the acute hazard definitions must be evaluated as well. The acute hazard definitions are not included in the standard to "categorize" chemicals but rather to establish that chemicals meeting those definitions fall under the coverage of the standard.

4. In some cases, the only information available on a substance may be employer-generated data. If the employer indicates that such information is the basis for the hazard evaluation, the CSHO shall ask to see it in order to complete the OSHA evaluation.
5. In cases where the employer denies the CSHO access to its own hazard data and no published data on the chemical can be found to review the sufficiency of the hazard determination, the Regional Office shall be contacted for assistance in obtaining an administrative subpoena. The Directorate of Compliance Programs shall be contacted if assistance is required in order to obtain unpublished chemical hazard information available from other Federal agencies such as Environmental Protection Agency.
6. If an employer has found any chemical to be non-hazardous, and the CSHO has reason to believe it is hazardous, further investigation is required. The definitions of hazard in the standard are very broad, and it is not expected that many chemicals can be considered nonhazardous under this approach. Those most likely to be exempted would be chemicals that pose no physical hazards, and which have lethal dose findings above the limits found in the acute hazard definitions.
7. In some cases, the employer may not have addressed in the Hazard Communication Program a specific chemical that the CSHO knows to be present through knowledge of the process or through sampling or other investigation of the workplace. This situation should also be further investigated. If the CSHO has information to indicate that there is a hazard, the employer must be able to defend the finding of no hazard.
8. Internet addresses for the above-mentioned organizations are:
  - ACGIH - <http://www.acgih.org>
  - NTP - <http://ntp-server.niehs.nih.gov>
  - IARC - <http://www.iarc.fr>
  - OSHA - <http://www.osha.gov>

## Appendix D

### GUIDE FOR REVIEWING MSDS COMPLETENESS

#### **NOTE: Dated March 1998 – this will change with GHS!**

NOTE: This guide has been developed for use as an optional aid during inspections.

During CSHO review for Material Safety Data Sheet completeness, the following questions may be helpful:

1. Do chemical manufacturers and importers have an MSDS for each hazardous chemical produced or imported into the United States?
  2. Do employers have an MSDS for each hazardous chemical used?
  3. Is each MSDS in at least English?
  4. Does each MSDS contain at least the:
    - (a) Identity used on the label?
    - (b) Chemical and common name(s) for single substance hazardous chemicals?
    - (c) For mixtures tested as a whole:
      - (1) Chemical and common name(s) of the ingredients which contribute to the known hazards?
      - (2) Common name(s) of the mixture itself?
    - (d) For mixtures not tested as a whole:
      - (1) Chemical and common name(s) of all ingredient which are health hazards (1 percent concentration or greater), including carcinogens (0.1 percent concentration or greater)?
      - (2) Chemical and common name(s) of all ingredients which are health hazards and present a risk to employees, even though they are present in the mixture in concentrations of less than 1 percent or 0.1 percent for carcinogens?
    - (e) Chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture?
    - (f) Physical and chemical characteristics of the hazardous chemical (vapor pressure, flash point, etc.)?
    - (g) Physical hazards of the hazardous chemical including the potential for fire, explosion, and reactivity?
    - (h) Health hazards of the hazardous chemical (including signs and symptoms and medical conditions aggravated)?
    - (I) Primary routes of entry?
    - (j) OSHA permissible exposure limit (PEL)? The American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)? Other exposure limit(s) (including ceiling and other short term limits)?
    - (k) Information on carcinogen listings (reference OSHA regulated carcinogens, those indicated in the National Toxicology Program (NTP) Annual Report on Carcinogens and/or those listed by the International Agency for Research on Carcinogens (IARC))?
- NOTE: Negative conclusions regarding carcinogenicity, or the fact that there is no information, do not have to be reported unless there is a specific space or blank for carcinogenicity on the form.
- (l) Generally applicable procedures and precautions for safe handling and use of the chemical (hygienic practices, maintenance and spill procedures)?

- (m) Generally applicable control measures (engineering controls, work practices and personal protective equipment)?
  - (n) Pertinent emergency and first aid procedures?
  - (o) Date that the MSDS was prepared or the date of the last change?
  - (p) Name, address and telephone number of the responsible party?
5. Are all sections of the MSDS completed?