

Title : Hazard Communication Written Program

EFFECTIVITY

Revision 3 of this procedure became effective on September 2004. This procedure consists of the pages and changes listed below.

| <u>Page No.</u> | <u>Change No.</u> | <u>Date Effective</u> |
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| 2-4 | 0 | 8/21/03 |
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Supersedes Procedure No. AP-016, Revision 2, Change 0 dated 08/21/2003

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|---------------------------------------|------------------|---------------------------------------|------------------|
| Approvals | | | |
| Written by /s/Bradley Werling | Date 9/9/2004 | Concurrence Review /s/Darrell Dunn | Date 9/8/2004 |
| Quality Assurance /s/Robert Brient | Date 9/9/2004 | Cognizant Director /s/Budhi Sagar | Date 9/9/2004 |

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AP-016 HAZARD COMMUNICATION PROGRAM

1. PURPOSE

The purpose for the hazard communication program is to provide employees the necessary health and safety information regarding hazardous chemicals in the work place. Occupational Safety and Health Administration standards (29 CFR 1910.1200) require that information concerning chemical hazards in the workplace be transmitted to employees.

2. RESPONSIBILITIES

2.1 Managing of the hazard communication program for this cost center

- Bradley Werling—Building 57, 522-6565.

2.2 Providing training and information

- Supervisors
- Division Chemical Hygiene Officer
- Division Safety Representative
- Southwest Research Institute® (SwRI) Department of Safety and Industrial Hygiene

2.3 Maintaining of the chemical inventory and Material Safety Data Sheets (MSDS) for each laboratory in Building 51 and Building 57:

- Yi-Ming Pan—Building 57 laboratories: L101, L105, L111, and L113.
- Bradley Werling—Building 57 laboratories: L102, L104, and L106.
- Jim Prikryl—Building 51 laboratories.

2.4 Ensuring proper labeling on containers

- Division Chemical Hygiene Officer

3. METHODS OF PROVIDING INFORMATION

Information about chemical hazards from routine tasks, nonroutine tasks, and unlabeled pipes will be provided by the following methods

- Training from Center for Nuclear Waste Regulatory Analyses (CNWRA) supervisors, the CNWRA Chemical Hygiene Officer, the CNWRA Safety Representative, and the SwRI Safety Department

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- Administrative procedures such as the Laboratory Chemical Hygiene Plan (AP-010) and the Hazardous Communication Program (AP-016).
- MSDS(s)
- Warning signs

4. LABELING AND OTHER FORMS OF WARNING

A hazardous chemical poses a physical or health hazard. Examples of physical hazards include fire, explosion, and corrosion. Examples of health hazards include carcinogens, toxic agents, irritants, and reproductive toxins. Health hazards can be acute and/or chronic.

4.1 All hazardous chemical containers will be labeled, tagged, or marked with the following required information:

- Identity of the hazardous chemical(s)
- Hazard warnings
- Name of the manufacturer, importer, or other responsible party (optional on staff-labeled chemical containers).

4.2 Manufacturer's labels will be left intact and legible.

4.3 Containers received without appropriate forms of warning will be properly labeled. The receiving cost center or user will take action to either label the material, obtain a label from the manufacturer, or return the material.

4.4 The Hazardous Materials Identification Guide (HMIG) system will be used for hazardous chemicals that require labeling by the staff. The HMIG system was developed by Lab Safety Supply Inc. See Appendix A for an explanation of the HMIG labeling system.

4.5 Portable containers, such as those used to transfer or measure chemicals, do not require labels if intended for immediate use. Unlabeled containers will not be left unattended under any circumstances.

5. MATERIAL SAFETY DATA SHEETS

5.1 MSDS will be available to employees before or upon the arrival of hazardous chemicals at the workplace.

5.2 MSDSs will be readily accessible to employees. Each group of laboratories will maintain a hard copy MSDS for each chemical on its chemical inventory. The CNWRA laboratories are divided into three groups.

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- Building 57 laboratories L101, L105, L111, and L113.
MSDSs located in L111
- Building 57 laboratories L102, L104, and L106
MSDSs located in L106
- Building 51 laboratories (all)
MSDSs located in front area

6. CHEMICAL INVENTORY

Each group of laboratories will maintain a current chemical inventory. The chemical inventories will be in the following locations.

- Building 57 laboratories L101, L105, L111, and L113
Chemical inventory located in L111
- Building 57 laboratories L102, L104, and L106
Chemical inventory located in L106
- Building 51 laboratories
Chemical inventory located in front area

7. WRITTEN HAZARDOUS COMMUNICATIONS PROGRAM

7.1 The SwRI written hazardous communications program is located in Section 2.4 of the Safety Policies and Procedures Manual (SPPM). The SPPM is available on the SwRI intranet (<http://i2net/>) in the Documents section.

7.2 The CNWRA written hazardous communications program (AP-016) is available on the division's QA website (<http://tuti/qa/>) in the Administrative Procedure section.

7.3 Each group of laboratories will maintain a hard copy of the CNWRA written hazardous communications program. The hard copies will be located in the following areas.

- Building 57 laboratories L101, L105, L111, and L113.
Written hazardous communications program located in L111
- Building 57 laboratories L102, L104, and L106
Written hazardous communications program located in L106
- Building 51 laboratories (all)
Written hazardous communications program located in front area

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8. EMPLOYEE TRAINING AND INFORMATION

8.1 Training will be conducted at the time of an employee's initial assignment. Initial training will be conducted in two parts. The first part will be conducted via the computer based course Right-to-Know - Course Number 6700050. The second part will consist of a training session conducted by the Chemical Hygiene Officer or designee.

8.2 Additional training will be provided by the immediate supervisor, the principle investigator, the Chemical Hygiene Officer or the safety representative whenever a new chemical which poses a significantly greater hazard or a different type of hazard is introduced into the work area.

8.3 Employees will receive training in the following:

- Methods that may be used to detect the presence or release of hazardous chemicals
- Physical and health hazards of chemicals
- Employee protection measures
- Details of the hazard communication program

8.4 Employees will be provided the following information:

- Operations where hazardous chemicals are present
- Location and availability of the written hazard communications program
- Location and availability of chemical inventory lists
- Location and availability of MSDSs

9. RECORD KEEPING

9.1 Hazard communication programs will be updated annually or as new hazards enter the workplace.

9.2 A copy of the CNWRA hazard communications program (as updated) will be forwarded to the SwRI Safety Department.

9.3 Hazard communication training records will be maintained by the CNWRA Director of Quality Assurance.

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APPENDIX A: EXPLANATION OF THE HMIG LABELING SYSTEM

The HMIG label consists of four color-coded categories. The blue color represents the health hazard of the material. The red color represents the flammability of the material. The yellow color represents the reactivity of the material. The white color represents the protective equipment to be used when handling the material.

Figure 1 contains an example of a blank HMIG label. The first three categories use a numbering system to rank the hazard level of the material. The numbers range from zero to four and represent minimal, slight, moderate, serious, and extreme levels, respectively. Table 1 contains a detailed definition of each hazard level for each of the three categories. The fourth category uses a letter to indicate the protective equipment required for handling the material. Table 2 identifies the protective equipment associated with each letter. The information required for a HMIG label can be found in the MSDS. In some cases, the MSDS will explicitly give the HMIG ranking information. However, in other cases, the HMIG ranking information is not explicitly given and must be derived from information within the MSDS.



Figure 1. Blank HMIG Label From Lab Safety Supply Inc.

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Table 1. HMIG Hazard Levels for the Health, Flammability, and Reactivity Categories.

| Hazard Level | Health | Flammability | Reactivity |
|---------------------|--|--|--|
| Extreme-4 | Highly toxic—May be fatal on short term exposure. Special protective equipment required. | Extremely flammable gas or liquid. Flash point below 73 °F. | Explosive at room temperature. |
| Serious-3 | Toxic—Avoid inhalation or skin contact. | Flammable—Flash point 73 °F to 100 °F. | May explode if shocked, heated under confinement, or mixed with water. |
| Moderate-2 | Moderately toxic—May be harmful if inhaled or absorbed. | Combustible—Requires moderate heating to ignite. Flash point 100 °F to 200 °F. | Unstable, may react with water. |
| Slight-1 | Slightly toxic—May cause slight irritation. | Slightly combustible—Requires strong heating to ignite. | May react if heated or mixed with water. |
| Minimal-0 | All chemicals have some degree of toxicity. | Will not burn under normal conditions. | Normally stable, does not react with water. |

Source: Lab Safety Supply Inc.

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Table 2. HMIG Protective Equipment Guide.

| | A | B | C | D | E | F | G | H | I | J | K | X* |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|----|
| Safety Eyewear | U | U | U | | U | U | U | U | U | U | | |
| Gloves | | U | U | U | U | U | U | U | U | U | U | |
| Apron | | | U | U | | U | | U | | U | | |
| Face Shield | | | | U | | | | | | | | |
| Dust/Mist Respirator | | | | | U | U | | | | | | |
| Vapor Respirator | | | | | | | U | U | | | | |
| Boots | | | | | | | | | | | U | |
| Dust & Vapor Respirator | | | | | | | | | U | U | | |
| Full Suit | | | | | | | | | | | U | |
| Supplied-Air Respirator | | | | | | | | | | | U | |

*Ask your supervisor for special handling instructions
Source: Lab Safety Supply Inc.