EMPLOYEE GUIDE TO HAZARD COMMUNICATION

WWebsite-wwww.depts.clackamas.edu/hr

The purpose of Oregon Administrative Rule Chapter 437-2/z.1910.1200 (Hazard Communication), is to ensure that the hazards of all chemicals produced or imported by chemical manufacturers or importers are evaluated, and that information concerning their hazards if transmitted to affected employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs. This legislative law was developed to become a part of the "Employee Right to Know Act", which makes access to the information on hazardous chemicals possible.

This employee guide to the College's Hazard Communication Program is designed to assist you in locating more comprehensive reference materials. The following will outline College Policy, describe briefly the requirements of this division, and describe how you as employees might benefit from this information.

I. HAZARDOUS CHEMICAL CONTAINER LABELING POLICY

All Supervisors will verify that containers recieved into the workplace for use will:

Be clearly labeled as to the contents.

Note the appropriate hazard seamings.

List the name and address of the manufacturer.

No containers will be released for use until the above data is verified.

All secondary containers not designated for immediate use will also be labeled and include the following:

Be clearly labeled as to contents.

Note the appropriate hazard warnings.

Container labeling policy is intended to provide employees with an immediate, on-site information source for the hazardous chemicals they use. Any secondary container labels that are needed can be obtained through your supervisor.

TLV:

Threshold Limit Value: a term used by ACGIH to express the airborne concentration of a material to which nearly all persons can be exposed day after day, without adverse effects. ACGIH expresses TLVs in three ways:

TLV-TWA: the allowable Time Weighted Average concentration for a normal 8-hour workday or 40-hour work week.

TLV-STEL: the Short Term Exposure Limit, or maximum concentration for a continuous 15 - minute exposure period (maximum of four such periods per day, with at least 60 minutes between exposure periods, and provided that the daily TLV-TWA is not exceeded).

TLV-C: The Ceiling exposure limit-the concentration that should not be exceeded even instantaneously.

II. EMPLOYEE PROTECTION

The main objective when dealing with hazardous chemicals is to prevent exposure to the body. Chemicals typically enter the body in three ways: **inhalation**, **absorption** and **ingestion**. Protection of the skin is accomplished through the use of impervious gloves and clothing. Protection of the eyes is accomplished through the use of splashproof goggles. Protection of the lungs is accomplished through the use of approved respirators. This personal protective equipment is available and will be utilized. For details on specific safe work practices. emergency procedures, etc., reference the Material Safety Data Sheet (MSDS) manual, consult with immediate supervisor or contact the Environmental Health/Safety Officer.

III. MATERIAL SAFETY DATA SHEET (MSDS)

Copies of MSDSs for all hazardous chemicals to which College employees may be exposed will be kept in an MSDS manual. The material Safety Data Sheets are the backbone of this Hazard Communication Program. The Material Safety Data Sheet includes information on potential health hazards of hazardous chemicals, emergency and first aid procedures, cleanup and disposal methods, special protective information, etc. The MSDS provides very detailed and comprehensive information and was obtained for each hazardous chemical used by College employees. The MSDS manual will also include an index or listing of all known hazardous chemicals used by College employees, and emergency response guidebook, glossary of terms and an actual copy of the administrative code.

The locations of this manual will be posted on all employee bulletin boards. The review and/or copy of this information is encouraged and will be available during all work shifts.

LC_{50}:

Lethal dose 50: a single dose of a material which on the basis of laboratory tests is expected to kill 50% of a group of animals. The LD50 dose is usually expressed as milligrams or grams of material per kilogram of animal body weight (mg/kg or g/kg).

MUTAGEN:

A substance or agent capable of altering the genetic material in a living cell.

PEL:

Permisible exposure limit: an exposure limit established by OSHA regulatoary authority. May be a time-weighted average (TWA) limit or a maximum concentration exposure limit.

%VOLATILE:

Percent volatile by volume: the percentage of a liquid or solid (by volume) that will evaporate at an ambient temperature of 70^0F (unless some other temperature is stated). Examples: butane, gasoline and paint thinner (mineral spirits) are 100% volatile; their individual evaporation rates vary, but over a period of time each will evaporate completely.

ppm:

Part per million: a unit for measuring the concentration of a gas or vapor in air-parts (by volume) of the gas or vapor in a million parts of air. Also used to indicate the concentration of a particular substance in a liquid or solid.

SENSITIZER:

A substance which on first exposure causes little or no reaction in man or test animals, but which on repeated exposure may cause a marked response not necessarily related to the contact site. Skin sensitization is the most common form of sensitization in the industrial setting, although respiratory sensitization to a few chemicals is also known to occur.

IV. NEW HAZARDOUS CHEMICALS ENTERING THE WORK PLACE

Material Safety Data Sheets and any special training required will be made available when new hazardous chemicals enter the workplace. Purchasing will request MSDS and will forward it to the Environmental Health/Safety Office, at which point it will be implemented into all MSDS manuals. All personnel who buy new chemicals via purchase orders will obtain MSDSs, then forward them to the Environmental Health/Safety Office for distribution. Any particular training or protecive procedure for the new chemicals will be communicated by the supervisors.

V. EMPLOYEE TRAINING AND INFORMATION

After the initial implemenation and training on this Hazard Communication Program, each new employee of Clackamas Community College will be given this employee guide and will be given instruction on hazardous chemicals in their work place. Each employee will sign a form to verify that they attended the training, received the written materials and understand College policies on Hazard Communication.

VI. HAZARDOUS CHEMICAL/MONITORING OF EXPOSURE

When determined to be necessary, the College will utilize the expertise of an outside Industrial Hygienist (Consultant) to monitor, investigate and make recommendation concerning work areas that are identified as high-risk or problem areas. These high-risk areas and hazards associated with them will be eliminated. Employee cooperation is essential.

HAZARDOUS MATERIAL

In a broad sense, a hazardous material is any substance or mixture of substances having properites capable of producing adverse effects on the health or safety of a human being. In 1971, the Occupational Health and Safety Administration (OSHA) adopted the following definition in regulations affecting employers in operations subject to the Federal Longshoremen's and Harbor Workers' Compensation Act:

"The term hazardous material means a material which has one or more of the following characteristics:

1. has a flashpoint below 140^0 F, closed cup, or is subject to spontaneous heating;

2. has a threshold limit value below 500 ppm for gases and vapors, below 500 MG/m^3 for fumes, and below 25 mppcf for dusts;

3. a single dose oral LD_{50} below 500 mg/kg;

4. is subject to polymerization with the release of large amounts of energy;

5. is a strong oxidizing or reducing agent;

6. causes first degree burns to skin in short time exposure, or is systematically toxic by skin contact, or

7. in the course of normal operations, may produce dusts, gases, fumes, vapors, mists, or smokes which have one or more of the above characteristics."

LC_{50}:

Lethal concentration 50: the concentration of a material in air which, on the basis for laboratory tests, is expected to kill 50% of a group of test animals when administered as a single exposure (usually 1 or 4 hours). The LC_{50} is expressed as parts of material per million parts of air, by volume (ppm) for gases and vapors or as micrograms of material per liter of air (ug/L), or milligrams of material per cubic meter of air (mg/m^3) for dusts and mists, as well as for gases and vapors.

VII. INDEX OF ALL KNOWN HAZARDOUS CHEMICALS USED BY COLLEGE EMPLOYEES

An index or listing of all known hazardous chemicals used by College employees is located in the front of all MSDS manuals. All hazardous chemicals will be organized numerically and alphabetically to assist you in locating the appropriate Material Safety Data Sheets.

VIII. HAZARDOUS CHEMICALS/WORK AREA IDENTIFICATION

Clackamas Community College, with all its diversity in operations, utilizes hundreds of chemicals considered to be hazardous. To single out and identify where each of these chemicals is used and how they are used would be a task of monumental proportions for any one person. Therefor identifying where these hazardous chemicals are present throughout the different work areas will be the responsibility of the supervisory staff and their immediate lead person.

IX. ADDITIONAL POLICY

In addtion to the information already provided, the Written Hazard Communication Program located in all safety manual locations, will provide information on College policies reagarding **Hazardous Non-Routine Tasks** that involve hazardous chemicals, hazardous chemicals in **Unlabeled Systems** and how **Contractors** will be informed on hazardous chemicals before they enter the work site.

CONCLUSION

This program on Hazard Communication makes available sometimes hidden or withheld information. It is to your benefit to utilize this information. Take a few minutes, on occasion, to link up the hazards associated with a specific chemical you use in the work place. If used with respect, chemicals can be safe and can make most jobs easier. If mishandled, chemicals can and do take life away. The MSDS manual is a good source of information for you as employees. It will help you to know what it is you're working with and how to work with it safely.

GLOSSARY OF COMMON MSDS TERMS

ACUTE EFFECT:

An adverse effect on human or animal body, with severe symptoms developing rapidly and coming quickly to a crisis.

ACUTE TOXICITY:

The adverse (acute) effects resulting from a single dose of or exposure to a substance. Ordinarily used to denote effects in experimental animals.

CHRONIC EFFECT:

An adverse effect on a human or animal body, with symptons which develop slowly over a long period of time or which occur frequently.

CHRONIC TOXICITY:

Adverse (chronic) effect resulting form repeated doses of or exposure to a substance over a relatively prolonged period of time.

DERMAL TOXICITY:

Adverse effects resulting from skin exposure to a substance. Ordinarily used to denote effects in experimental animals.

Employee Guide to Hazard Communication

Notice of Issuance

Date: _____, 20_____

To: Clackamas Community College

I hereby acknowledge receipt of:

☐ My copy of the ***Employee Guide to Hazard Communication***. I will carefully read this book and fully understand that I am responsible for complying with college policies on Hazard Communication. I also understand that any problem with Hazardous Chemicals must be reported immediately to my supervisor.

and

☐ Any necessary ***Departmental Guides.*** (See your supervisor)

_____

Signature of Employee

_____

Signature of Supervisor

Note: Employee is to sign in the presence of supervisor, then supervisor will sign and *send to the Human Resources Office*. This form will be made a part of your personal file.