# **Acronyms You May Wish To Become Familiar With**

OSHA- Occupational Safety & Health Act

EPA- Environmental Protection Agency

NRC- National Response Center

**DOT-** Department of Transportation

NIOSH- National Institute of Safety & Health

MSHA- Mine Safety & Health Act

TSCA- Toxic Substance Control Act

CFR- Code of Federal Regulations

CAS- Chemical Abstract Service

ACGIH- American Conference of

Governmental Industrial Hygienist

SARA- Superfund Amendments Re-authorization Act

TLV-Threshold Limit Value

PEL- Personal Exposure Limit

**UEL- Upper Explosion Limit** 

LEL- Lower Explosion Limit

PPE- Personal Protection Equipment

PPM- Parts Per Million

PPB- Parts Per Billion

Mg/L-Milligrams Per Liter

Chemical Information Lists (CIL) and Material Safety Data Sheets (MSDS) are the key sources to determining which substances are in the work place and how to avoid exposure to hazardous substances. GIL's and MSDS's are available from your department, the Hazardous Material section of the Public Safety Department, and the CASC Safety Manager.

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Health Hazard

- Deadly
- Extreme Danger

Hazardous Slightly Hazardous

Normal Material Will not burn lammability Health Reactivity

Specific Hazard

ACID- Acid

ALK- Alkali

COR - Corrosive

OXY - Oxidizer

P - Polymerization 11,11 - Radioactive

W Use no water

Reactivity

- May detonate
- Shock & heat may detonate

Fire Hazard Flash Points

Above 100-F and

exceeding 200-F

Below 73•F

Below 100-F

Above 200 F

- Violent chemical change
- Unsafe if heated
- Stable

Health	Flammable	Reactive
Types of Pos- sible Injury	Susceptibility of materials to burning	Susceptibility to release of energy
4) Too danger- ous to enter vapor or liquid	4) Extremely flammable	4)May detonate- vacate area if materials are exposed to fire
3) Extremely dangerous	3) Ignites at nor- mal temperature	3) Strong shock or heat may detonate- use monitors from behind explo- sion resistant barriers
2) Hazardous- use breathing apparatus	2) Ignites when moderately heat- ed	2) Violent chemicalchange
1) Slightly haz- ardous	1) Wust be pre- heated to burn	Unstable if heated- use normal precaution
0) Like ordinary material	0) Will not burn	0) Normally sta- ble
OXY) Oxidizing chemicals	W) Do not use water	P) Subject to polymerization



# **Hazard Communication Standard**

Chemical Name

CAS#

**Flammability** 

Reactivity

**Specific** 

CASC HAZARD COMMUNICATIONS

**EXAMPLE OF STANDARD LABEL** 

### Right-To-Know

On September 17, 1984, the state of Oklahoma adopted the Federal OSHA Standards, 29 CFR 1910 and 1926, to apply to the state government and its political subdivisions. Title 40 O.S. sections 401-424. Oklahoma statutes as amended.

## Carl Albert State College-Hazard Communication Standard

### Right To Know

Employees of CASC have the right to know the properties and potential safety and health hazards of substances to which they may be exposed. Such knowledge is essential to reducing the risk of occupational illness and injury.

#### Goals of Right to Know:

- To help you reduce the risks involved in working with hazardous materials
- To transmit vital information to employees about real and potential hazards of substances in the work place
- To reduce the incidence and cost of illness and iniury resulting from hazardous substances
- To promote public employer's and employee's need and right to know
- To encourage a reduction in the volume and toxicity of hazardous substances

#### Hazardous Substance

A hazardous substance is any substance which is a physical hazard or a health hazard

(a) "Health Hazard" means any chemical, or

biological substance or agent which is listed in the U.S. Occupational Safety and Health Administration's list of Toxic and Hazardous Substances. 29 CFR Part 1910, Subpart "Z". And any other substances including but not limited to chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins,

irritants, corrosives, sensitizers, hematopoietic system, and agents which damage the lungs, skin, eyes or mucous membranes, and any substance for which a Material Safety Data Sheet has been provided by the manufacturer, as a hazardous material, or such

substances deemed by the Commissioner, based on documented scientific evidence, that poses a threat to the health of a employee.

(a) "Physical Hazard" means a chemical which is a compressed gas, explosive, flammable, and organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive, and which is contained in the U.S. Occupational Safety and Health

Administration's list of Hazardous Materials, 29 CFR Part 1910, Subpart "H". And any substances for which a Material Safety Data Sheet has been provided by the manufacturer as a hazardous

material, or such substances deemed by the

Commissioner, based on documented scientific evidence that poses a threat to the safety of an employee.

#### Identifying Hazardous Substances

Every container of hazardous substances must bear a label showing the chemical name and the Chemical

Abstract Service number or the manufacturer's label, or the identifying label. In addition, many containers will have pictorial labels suggesting the protective measures required in handling the substance.

Other labels and placards will utilize a numbering system of 0-4 to determine the seriousness or the hazard of the substance in the three categories of Health, Flammability, and Reactivity. In all cases, a 0 means the least threat while a rating of 4 means the greatest danger. An

example of the hazard ratings used by the National Fire Protection Association is on the back of this pamphlet.

#### How to Determine Which Substances are in Your Work Place

Discuss the topic with your supervisor and review your department's Chemical Information List. To determine the extent of the hazard of each substance on the CIL or protective measures required in using the chemical,

locate the Material Safely Data Sheets for each substance.

The MSDS will provide an in-depth analysis of the substance along with all precautions necessary in handling the substance.

#### Chemical Information List/Material Safety Data Sheets

Chemical Information List is the list of all hazardous substances in a specific location. Every substance on the CIL will have a Material Safety Data Sheet on file at your department and with the Master Record Keeper. It is very important to know how to read and understand the MSDS. It is designed and written in sections:

Section I Product Identification

(Chemical Name and Trade Names)

Section II Hazardous Ingredients

(Components and Percentages)

Section III PhysicalData

(Boiling point, density, solubility in

water, appearance, and color)

Section IV Fire and Explosion Data

> (Flash point, extinguisher media, special fire fighting procedures, and unusual fire and explosion hazards)

Section V Health Hazard Data

> (Exposure limits. effects overexposure, emergency and first aid

procedures)

Section VI Reactivity Data

> (Stability, condition to avoid, incompatible materials, etc.)

Section VII Spill or Leak Procedures

> (Steps to take to control and clean up Spills and leaks and waste disposal

methods)

Control Measures Section VIII

> (Respiratory protection, ventilation, protection for eves or skin, or other

protective equipment)

Special Precautions Section IX

> (How to handle and store, steps to take in a spill, disposal method, and other

precautions)

#### Appropriate Work Practices

It is strongly suggested that you read the MSDS for every substance you come in contact with and utilize the control measures (protective measures) and the special

precautions delineated on the MSDS. When in doubt. consult with your supervisor.

### **Emergency Procedures**

Report all spills and avoid contact with substances without proper protective equipment.

If you are exposed (exposed to a substance which requires protective equipment — when you do not have the required protective equipment) to a hazardous

substance, seek medical attention and fill out an Incident Investigation Report of the exposure with your supervisor. The record of the exposure will be kept permanently and will be available to you.

### **Emergency Telephone Numbers**

Fire- 9-911

Ambulance - 9-911

Police - 9-911 or 647-8620