

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 or an OSU Safety official.

Emergency Procedures

Report all spills and avoid contact with substances unless you have the proper protective equipment.

If you are exposed to a substance that requires you to have protective equipment—when you do not have the required protective equipment—seek medical attention and file a written report of the exposure with your supervisor. The record of the exposure will be kept permanently and will be available to you.

Emergency 911

To report emergencies, dial 911 on or off campus. The 911 number will provide access to fire, police, ambulance, or emergency services.

Acronyms You May Wish to Become Familiar With

OSHA	Occupational Safety & Health Act
EPA	Environmental Protection Agency
NRC	National Response Center (Coast Guard)
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 (number)
ACGIH	American Conference of Governmental Industrial Hygienist
SARA	Superfund Amendments Re-authorization Act
TLV	Threshold Limit Value
TWA	Time Weighted Average
PEL	Personal Exposure Limit
UEL	Upper Explosion Limit
LEL	Lower Explosion Limit
PPE	Personal Protective 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 determine which substances are in the work place and how to avoid exposure to hazardous substances. CIL's and MSDS's are available from your department and the Hazard Communication section of the Environmental Health and Safety Department for Oklahoma State University. For further information, call 744-7241.

Chemical Name	
CAS #	
HEALTH	<input type="checkbox"/>
FLAMMABILITY	<input type="checkbox"/>
INSTABILITY	<input type="checkbox"/>
SPECIFIC	<input type="checkbox"/>
OKLAHOMA STATE HAZARD COMMUNICATIONS	

Oklahoma State University

Hazard Communication Standard

On September 17, 1984, the State of Oklahoma adopted 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.

Oklahoma State University--Hazard Communication Standard Right-to-Know

Employees of OSU 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 injury resulting from hazardous substances
- To promote public employer'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 that is a physical hazard or a health hazard.

(a) **"Health Hazard"** means any chemical or biological substance or agent that 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 substance including, but not limited to, chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hematopoietic system, and agents that 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 an employee.

(b) **"Physical Hazard"** means a chemical that is a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive, and is contained in the U.S. Occupational Safety and Health Administration's list of Hazardous Materials, 29 CFR Part 1910, Subpart "H," 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 safety of an employee.

Identifying Hazardous Substances

Every container of hazardous substance must bear a label showing the chemical name and the Chemical Abstract Service number (CAS #) or the manufacturer's label, or the OSU 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.

How to Determine Which Substances Are in Your Place

Discuss this topic with your supervisor and review your department's Chemical Information List (CIL). To determine the extent of the hazard of each substance on the CIL, or protective measures required in using the chemical, locate the Material Safety Data Sheet (MSDS) for each substance. The MSDS will provide an in-depth analysis of the substance along with all precautions necessary to handle the substance safely.

Chemical Information List/Material Safety Data Sheets

Chemical Information List (CIL) is the list of all hazardous substances in a specific location. Every substance on the CIL will have a Material Safety Data Sheet (MSDS) on file at your department and with the Hazard Communication Office.

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

Physical Data
(Boiling point, density, solubility in water, appearance, and color, etc.)

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 of overexposure, emergency and first aid procedure)

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)

Section VIII

Control Measures
(Respiratory protection, ventilation, protection for eyes or skin or other protective equipment)

Section IX

Special Precautions
(How to handle and store, steps to take in a spill, disposal method, and other precautions)