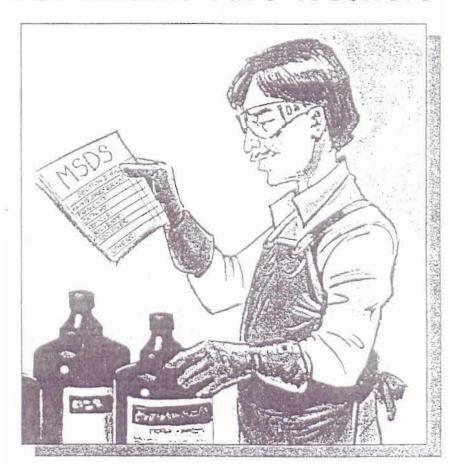
CARE FOR THE



CAREGIVER

GOMMUNICATION

For Health Care Workers



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Your health care facility works hard to provide high-quality patient care. It cares equally about keeping you—its skilled employee—safe and healthy, too. Because you work around hazardous substances, your employer wants you to know more about these substances and their risks. OSHA (Occupational Safety and Health Administration) also outlines safety guidelines for handling these hazardous substances. Put these guidelines into practice. Understand your risks and take steps to protect yourself and your coworkers.

KNOW THE HAZARDS

Hazardous substances can be hard to recognize. For example, radiation and medical gases can't be seen. Chemicals and asbestos may be safe until disturbed or used incorrectly. Knowing the hazards and following your training can keep you safe — maybe even save your life.





Chemotherapy

Anticancer drugs damage normal cells, too. Improper use can place workers who mix, administer, or come in contact with these drugs at increased risk for birth defects or cancer.



Radiation

Radiation consists of waves or particles used to Image or treat areas of the body. When safety guidelines aren't followed, radiation can cause sterility, genetic damage, or cancer.



Ethylene Oxide

Ethylene oxide is a gas used to sterilize hospital equipment. Used improperly, it can damage skin and the respiratory and nervous systems. The result can be sterility or cancer.



Chemicals

Thousands of chemicals are a necessary part of hospital life. But when handled incorrectly, they can burn, explode, cause skin damage, or lead to other serious health hazards.



Medical Gases

Medical gases include oxygen and anesthetic gases. If gas leaks occur, dangers range from fire to serious health problems such as respiratory disease.



Asbestos

Asbestos is a mineral once used in construction and fireproofing. When disturbed or aged, it can break into very small fibers. If inhaled, it can lead to respiratory disease or cancer.

This booklet is not intended to replace your employer's health and safety policies. Only your employer can establish the specific safety guidelines appropriate for your job. ©1994 by Krames Communications, 1100 Grundy Lane, San Bruno, CA 94066-3030. (800) 333-3032. All rights reserved. It is a violation of United States copyright laws to reproduce any portion of this publication in any form or by any means without written permission from the publisher. Lithographed in Canada.

UNDERSTANDING OSHA GUIDELINES

If you work with hazardous substances, OSHA requires that your employer provide a four-part hazard communication program, which includes employee training, a written program, Material Safety Data Sheets, and container and warning labels. The level of training you receive depends on your level of risk for exposure to

hazardous substances. If you have questions about safe work practices, talk to your supervisor or safety coordinator.



YOUR HAZCOM PROGRAM

Employee Training

You'll learn how to handle hazardous substances safely, and how to use personal protective equipment (PPE) such as gloves, eye protection, and headgear. You'll also find out where to get more information when you need it. This booklet is part of the training program. See pages 6–10.

Written Program

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The written program outlines the steps your health care facility is taking to tell you about hazardous substances. It includes an inventory of dangerous substances in your work area. Ask your supervisor about your employer's program.

Material Safety Data Sheet (MSDS)

An MSDS gives you detailed information about health risks and safe handling procedures for each substance you work with. These are available to you in your work area. See page 4 for more information on how to read an MSDS.

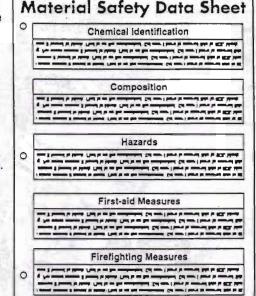
Container and Warning Labels

The container label lists the substance name, hazardous ingredients, and safety warnings. The warning label lists hazard ratings for each substance. See page 5 for more information.

READING AN MSDS

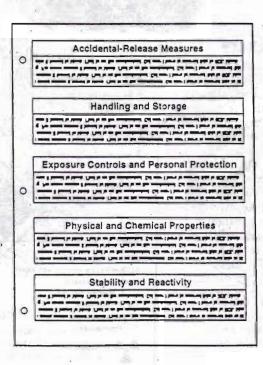
The MSDS (Material Safety Data Sheet) for each hazardous substance in your work area tells you how to use, handle, and store the substance safely. Emergency and first-aid procedures are listed, as well. Each MSDS may look a little different, but all give you the same basic information. This sample MSDS identifies the ten sections you are most likely to see.

- Chemical Identification lists the name of the substance and the company who developed the MSDS. Also listed are hazardous components—by generic or specific name. The manufacturer's name, address, and phone number are included here, too.
- Composition identifies the ingredients that contribute to hazards or are considered hazardous by OSHA. Also listed are the chemical and common names of hazardous components.



- Hazards describes the substance's appearance, any hazards associated with emergency response situations, and potential health effects and symptoms of exposure, such as a rash.
- First-ald Measures tells you about emergency procedures—simple steps that you can take before professional medical assistance is available—if someone has been exposed.
- Firefighting Measures lets you know the fire and explosive properties of the material, appropriate extinguishing devices, and basic firefighting guidelines.

- Accidental-Release Measures tells how to contain and clean up a spill, leak, or other release.
- Handling and Storage discusses safe practices that minimize contact between you and the substance. These guidelines include risks from fire or reactions with incompatible substances.
- Exposure Controls and Personal Protection explains any engineering controls, such as proper ventilation, and personal protective equipment (PPE), such as respiratory protection.



- Physical and Chemical Properties identifies the substance's characteristics, such as odor and boiling or melting points, if any.
- Stability and Reactivity describes conditions that could result in a hazardous chemical reaction. This might include contact and reaction with other substances, or environmental conditions to avoid, such as heat.

UNDERSTANDING LABELS

You can help prevent illness and injury by reading the container label and warning label for each hazardous substance you use. There should always be a label on a container, but you may not always see a warning label. If you have any questions after reading the container label or warning label, check the MSDS. The MSDS is probably the most detailed source of information for the hazardous substance you are using.

CONTAINER LABELS

Always check the container label before handling any substance. All container labels list basic warnings. Others may give more detailed precautions. Container labels may have information such as the following:

- A brief description of the substance
- The main ingredients of the substance
- The kind of personal protective equipment you should wear while handling the substance
- A list of hazard warnings, such as the need to keep the substance away from flame or the need to avoid skin contact



HEALTH -

ing vapor

irritating

O Normal material

COR - Corrosive

P-Polymerizes

₩ - Use no water

- Directions on how to use the substance safely
- Steps to take if you splash the substance in your eyes or on your skin
- The procedure for storing the substance safely
- The manufacturer's name and address
- The procedure for disposing of the container

WARNING LABELS

You may see a warning label on a container or box of containers, such as a case of chemical jugs. These labels provide the most important information you need to know about the substance you are handling. Hazard ratings - from 0 to 4, with 4 being the most hazardous - are used for three categories: Health, Flammability, and Reactivity. For example, if the substance has a low risk of flammability, a "1" may appear in the Flammability section. The Special Notice category shows other important hazards to be aware of.

Sample Warning Label FLAMMABILITY 4 Extreme hazard -4 Extremely dangerous fire and explosion avoid contact or breathhazard - below 73° F 3 Fire and explosion 3 Severe hazard -use special clothing and hazard at normal temps -below 100° F 2 Hazardous - use masks 2 Will burn at temps above 100° F or special ventilation 1 Will burn at temps 1 Lightly hazardous above 200° F 0 Will not burn SPECIAL NOTICE REACTIVITY OXY - Oxidizing agent 4 Extreme hazard -ACIO - Reacts violently with atkalis vacate area in case of fire ALK-Alkali-reacts Severe explosion violently with acids hazard 2 Violent chemical change possible 1 Unstable if heated -Radioactive O Normally stable

PROTECT YOURSELF: HANDLING HAZARDS SAFELY

☐ CHEMOTHERAPY

Anticancer drugs can save or prolong the lives of cancer patients. But they can pose a hazard to nurses and pharmacists who mix them or to house-keeping staff who clean up spills and remove waste. Follow your employer's safety standards and you'll help keep everyone safe.



Check Labels

Clearly label drugs and equipment and replace any torn labels.

of drugs.



Hand-carry or transport materials in a leakproof container, such as a zipperlocked bag.





Clean Up Spills

Clean up spills immediately. Use a circular motion to wipe up spills, moving from outside in. Wear full protective clothing.

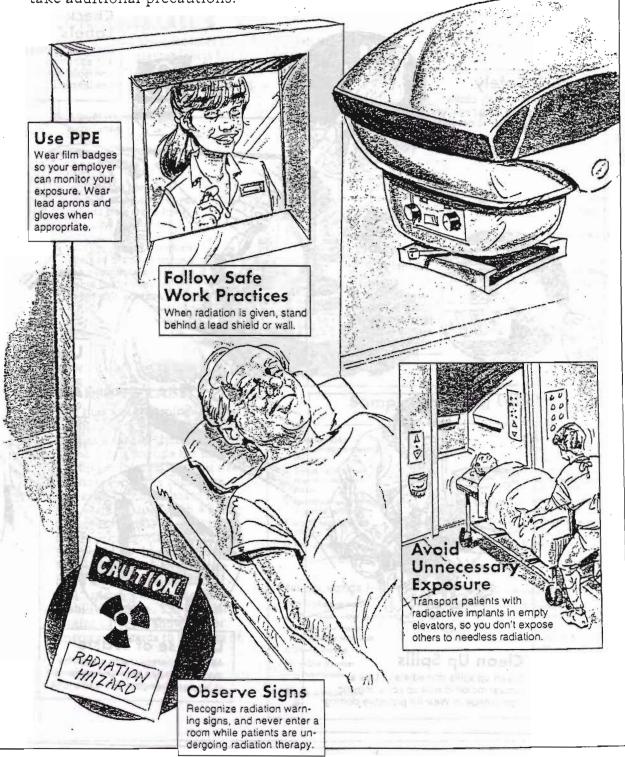


Dispose of Waste

All chemotherapy waste should be placed in sealed bags and discarded in labeled chemotherapy waste bins.

RADIATION

Used properly, radiation can help detect illness and treat cancer. But it, too, can be a hazard if accidental exposure reaches x-ray technicians, nurses, or others working near it. Your health care facility has set safe work practices to keep both workers and patients safe, and advises that pregnant women take additional precautions.



PROTECT YOURSELF: HANDLING HAZARDS SAFELY

TETHYLENE OXIDE

Ethylene oxide gas is commonly used to sterilize equipment. But if it isn't fully evaporated during aeration procedures, it can damage skin and other body tissue. You'll be trained to work with this gas safely and to use the sterilization and aeration equipment correctly. Ask your supervisor if you have any questions.



CHEMICALS

It's hard to imagine work without chemicals: They make jobs easier and faster. But many of these substances can be dangerous, too. You'll be trained on the hazards of chemicals you work with. For your own benefit, follow safety guidelines and, when your training dictates, wear personal protective equipment and clothing.

Type of Chemical Work Safely PPE Chemicals may look alike, but each has unique quali-Safe work practices are Know the specific personal ties. Knowing the type of chemical you're working with your key to avoiding acciprotective equipment you can tell you something about its nature. But don't stop dents with chemicals. Take need to use with different there. Treat each chemical individually. advantage of training. chemicals. Solvents Solvents, such as disinfectants, are used in many housekeeping and engineering jobs because they easily dissolve other substances. But they also can "dissolve" skin and other sensitive tissue like the eyes. Learn the hazards of chemicals you work with. Follow the Work in protective measures you've been taught. well-vented Sleeve Corrosives protector Corrosives are commonly found in the pharmacy and in laboratories. By their nature, they can't help destroying or changing what acids to water. they touch. This means that they can easily "eat through" clothing or exposed skin. Mix them safely and handle them with care. Flammables FLAMMAGLE Flammables, usually liquid chemicals, are found STORAGE throughout your facility. They catch fire easily, so store them away from sparks and flames. Reactives and Explosives Reactives explode easily and may release dangerous vapors. Store and handle them chemicals properly to protect everyone's safety. Toxics Salety shoes Many health care chemicals are toxic or or booties "poisonous" if you accidentally inhale them, swallow them, or let them be absorbed through your skin. If you have any questions about whether a chemical is toxic, check the MSDS or warning label. Know your chemicals

PROTECT YOURSELF: HANDLING HAZARDS SAFELY

MEDICAL GASES

Medical gases are especially hazardous because they're hard to smell and can't be seen. Operating and recovery room staff are at highest risk if gas leaks from tubing or from the patient's mask. The longer the gases are inhaled or are in contact with your body, the more harm they can do.

Oxygens

Oxygen is dangerous because it makes other materials highly flammable. The gas is found in operating, patient, and recovery rooms. It also is commonly transported between floors and nursing stations and may be piped throughout your facility.

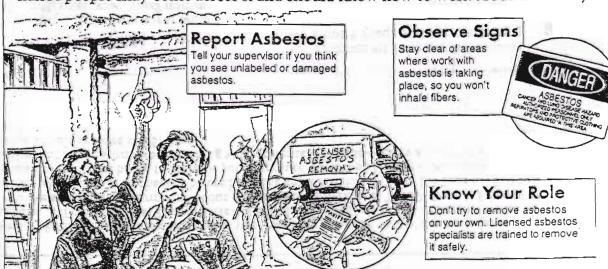
Anesthetic Gases

Most exposure from anesthetic gases, such as nitrous oxide, occurs through leakage of tubing. Your facility has a scavenger system to collect waste gas and route it outside.



ASBESTOS

If your facility was built before the 1970s, asbestos may have been used as a fireproofing agent on steel beams above ceilings and on the framework of walls. Most health care workers won't come in contact with asbestos, but maintenance people may come across it and should know how to work around it safely.



HAZARD COMMUNICATION CURA

Test your hazard communication knowledge. Remember, the more you know, the safer your workplace can be—for you, your coworkers, and patients. See if you can answer the following questions.

1. You need training in handling hazardous materials only if you're a full-time employee.

True False

2. Your Hazard Communication Program should include employee training, a written program, an MSDS, and label information.

True False

 OSHA outlines safety guidelines for handling hazardous substances.

True False

4. A Material Safety Data Sheet (MSDS) contains information on how to use, handle, and store substances safely.

True False

5. All MSDSs have exactly the same format.

True False

6. Container labels list the main ingredients of the substance.

True False

7. Warning labels identify fire hazards and health hazards.

True False

8. It isn't necessary to check a container label before handling its contents.

True False

9. There should always be a container label on a hazardous-substance container.

True False

10. If you're not sure whether a chemical is dangerous or not, check the MSDS.

True False

Optional Questions

11. When giving radiation treatments, it is not necessary to wear a film badge.

True False

12. Some chemicals can be poisonous if absorbed through your skin.

True False

13. When working around solvents, it is not necessary to wear any PPE.

True False

14. Any health care facility worker can remove asbestos.

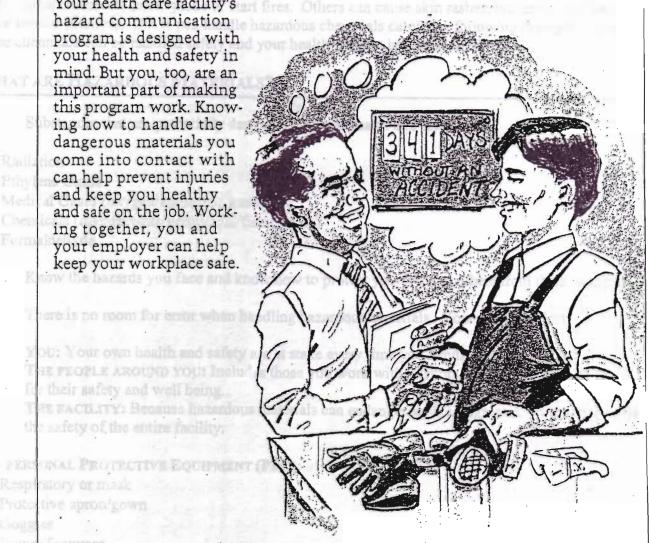
True False

15. Oxygen is one of the most hazardous medical gases, because oxygen makes other materials highly flammable.

True False

Answers: 1| False—You need training even if you work only part-time with or around hazardous substances. 2) True 3| True 4| True 5| False—Each MSDS may look a little different, but all give you the same basic information about a hazardous substance. 6| True 7| True 8| False—Container labels should be checked before handling any substance. 9| True 10| True 11| False—You should wear a film badge to monitor your exposure. 12| True 13| False—Headgear and eye protection should be worn when working with solvents. 14| False—Only a licensed asbestos specialist should remove it. 15| True

Your health care facility's hazard communication program is designed with your health and safety in mind. But you, too, are an important part of making this program work. Knowing how to handle the dangerous materials you come into contact with can help prevent injuries and keep you healthy and safe on the job. Working together, you and your employer can help keep your workplace safe.





Buting: keep food out of work area.

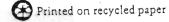
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Know fire alide measures for each hazerdous material you come

Respiratory or made

for their safety and well being.

the safety of the entire facility.



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HAZARDOUS MATERIALS MODULE

The best way to protect your health and safety is to know about each of the chemicals you work with. Some chemicals can explode or start fires. Others can cause skin rashes, breathing problems, or more serious illnesses. But if you handle hazardous chemicals carefully, following the right precautions, these chemicals can be handled safely and your health will not be jeopardized.

WHAT ARE HAZARDOUS MATERIALS?

Substances that are potentially dangerous to your health and safety.

- Radiation
- Ethylene Oxide
- Medical Gases (oxygen/anesthetic gases)
- Chemicals (disinfectants/germicidal/flammables)
- Formaldehyde

Know the hazards you face and know how to protect yourself and others from their dangers.

There is no room for error when handling hazardous materials. Your actions affect:

You: Your own health and safety are at stake every time you handle these materials.

THE PEOPLE AROUND YOU: Includes those you work with, visitors, patients, who must rely on you for their safety and well being.

wind chemidal you are. These give

THE FACILITY: Because hazardous materials can endanger such a large area, your actions affect the safety of the entire facility.

USE PERSONAL PROTECTIVE EQUIPMENT (PPE):

- Respiratory or mask
- Protective apron/gown
- Goggles
- Proper footwear
- Protective gloves

PRACTICE GOOD HYGIENE:

- Handwasing
- Cleaning cuts/wounds immediately
- Eating: keep food out of work area. and all, any made names, and the chemical manufacturar's name and

FIRST AIDE MEASURES:

- Know firs aide measures for each hazardous material you come in contact with.
- Get immediate first aide when exposed. the chemical to which you can rately be exposed, of

PREVENTION OF INJURIES:

- Let falling objects fall.
- Don't reach into containers.
- Practice safe handling techniques.
- Dispose of equipment/supplies appropriately.

• Spills: Act quickly, clean up small spills immediately and properly

Wear appropriate PPE

Contain spill

Notify other personnel (call code orange)

READ THE MSDS AND LABELS:

You can help prevent illness and injury by reading the MSDS (Material Safety Data Sheets) and warning label for each chemical you use. These give you key health and safety information about the hazardous chemicals in your work area. The hospital has MSDS's and labels available to you in your department. Know their location and how to read a MSDS. Assure you have read the MSDS before your use a new product/chemical.

WARNING SIGNS:

Each warning label lists the chemical name, hazardous ingredients, hazard warning, and the chemical manufacturer's name and address. Chemical producers review scientific studies and provide an updated warning label and MSDS for each hazardous chemical in your work place. Every container holding a hazardous substance must have a label indicating its contents, hazardous warnings, and the manufacturer's name. If you transfer a chemical from one container to another (diluting from concentrate), both containers must have warning labels.

MATERIAL SAFETY DATA SHEETS (MSDS):

Each MSDS gives you more detailed health and safety information, precautions for handling, emergency and first aid procedures. The MSDS for hazardous chemicals you are handling are available through your supervisor. Emergency Department, Maintenance/Safety Chairman and Purchasing Department have master copies of all chemicals requiring a MSDS used in the hospital.

The MSDS for each hazardous chemical in your work place tells you how to use, handle, and store the chemical safely. Each MSDS may look a little different, but all give you the same basic information:

CHEMICAL IDENTIFICATION:

The first section of the MSDS helps you identify the chemical. It lists the name of the chemical, any trade names, and the chemical manufacturer's name and address.

COMPOSITION:

This section lists what is in the chemical that can harm you. It also lists the concentration of the chemical to which you can safely be exposed, often listed and the permissible exposure limit (PEL) – or the threshold limit value (TLV). These safe exposure limits are usually figured for average exposures over a typical work shift.

PHYSICAL AND CHEMICAL DATA:

This section describes the chemical's appearance, odor, and other characteristics. Percent volatile, for instance, is how much of the chemical evaporates at room temperature. Sulfuric acid has a low percent volatile but fumes easily, so respiratory protection or extra ventilation may be needed.

FIRE FIGHTING MEASURES:

Here you can find at what temperature the chemical ignites, called flash point. This section also lists extinguishing media: what you should use to put out a fire safely, such as foam, water or any other type of extinguisher.

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HEALTH HAZARDS:

This section lists symptoms of overexposure, such as skin rash, burn, headache, or dizziness.

The label may explain what to do if you solute the chemic

FIRST-AID MEASURES:

Advises first aid and emergency procedures in case of overexposure (such as flushing you exposed skin with running water for 15 minutes). It may also list any medical conditions that can be aggravated by exposure to the chemical.

STABILITY AND REACTIVITY DATA:

Here you will find whether the chemical "reacts" with materials or conditions. Incompatibility lists the environmental conditions, such as heat or direct sunlight that cause a dangerous reaction.

ACCIDENTAL – RELEASE MEASURES:

This section tells you what to use to clean up an accidental spill or leak. No matter what the chemical is, notify your immediate supervisor right away. Before cleaning up a chemical spill, you may need to wear respiratory protection, gloves, safety goggles, or protective clothing. This section may also include notes on how to dispose of the chemical safely.

EXPOSURE CONTROLS AND PERSONAL PROTECTION:

Here you will find a listing of any personal protective equipment (PPE) you will need to work safely with the chemical. If protective equipment is needed, this section may list required use. Engineering controls will also be listed.

SPECIAL PRECAUTIONS:

This section lists any other special precautions to follow when handling the chemical. This may include what to have nearby to clean up a spill or put out a fire, and what safety signs to post near the chemical.

treater evertaining is labelled. Then your co-workers will know how to handle it safely, too.

leave move a hazardous chemical from its primary container to a new one, be sure your

BASIC WARNING:

The warning label lists the chemical name, its main ingredients by name, hazardous ingredients, hazard warnings, and the name and address of the chemical manufacturer, storage and first aide. It also lists hazard warnings; such as to keep the chemical away from flame or avoid skin contact. And how to dispose of the container.

FIRST AID:

The label may explain what to do if you splash the chemical in your eyes or on your skin. You may need to flush your eyes at an eye wash station for 15 minutes or wash skin contaminated skin in a full body shower.

FIRE:

The label may explain to use to put out an accidental fire. There are four different types of fire extinguishers: water, foam, and dry chemical and carbon dioxide. Using the wrong one can spread the fire instead of putting it out. Be sure you know which extinguisher is appropriate for this particular fire.

NON-LABELED CONTAINERS:

If a container does not have a warning label, report it to your manager immediately. Find out what the chemical is, and affix the proper label.

SPILLS:

There may be as section on how to handle spills. For any spill, contact your supervisor right away — call Code Orange and put out any source of nearby flame. Maintenance and Housekeeping personnel will arrive to ascertain requirements for spill cleanup. PPE should be worn when required to clean up a spill.

HANDLING AND STORAGE:

The label may list the PPE, such as gloves or goggles. The chemical may also need to be stored with extra ventilation or away from other chemicals.

DISPOSAL:

Treat empty containers as if they were still full, and do not fill them with anything else. Empty containers can be hazardous, since they often hold residues that can burn or explode. Follow the label and know how to dispose of empty containers.

TRANSFER CONTAINERS:

If you move a hazardous chemical from its primary container to a new one, be sure your transfer container is labeled. Then your co-workers will know how to handle it safely, too.

TORN LABELS:

If a label is torn, damaged, or misplaced, report it immediately so it can be repaired of replaced. Remember that the only way you can handle a chemical safely is fi you know what you are handling.

The hazard communication program is designed with your safety in mind. But it will work only if you help. Your department provides MSDS and labels, know how to use then so you will know how to handle material safely. Each employee must assure knowledge of the MSDS for each chemical he/she uses.

REMEMBER: IF A CONTAINER IS NOT LABELED
DO NOT HANDLE IT!
REPORT TO SUPERVISOR FOR LABELING

BE SAFE AROUND HAZARDOUS MATERIALS
KNOW WHAT YOU ARE HANDLING
KNOW WHERE MSDS ARE LOCATED

BE AWARE OF HAZARDOUS MATERIALS THAT YOU WORK WITH USE PROPER TECHNIQUES FOR HANDLING, STORING, AND DISPOSING OF HAZARDOUS MATERIALS

DO NOT LEAVE ROOM FOR ERROR HUMAN HEALTH AND SAFETY ARE PRICELESS!

WHEN A SPILL REQUIRES CLEAN UP –
ADVISE SUPERVISOR AND CALL CODE ORANGE