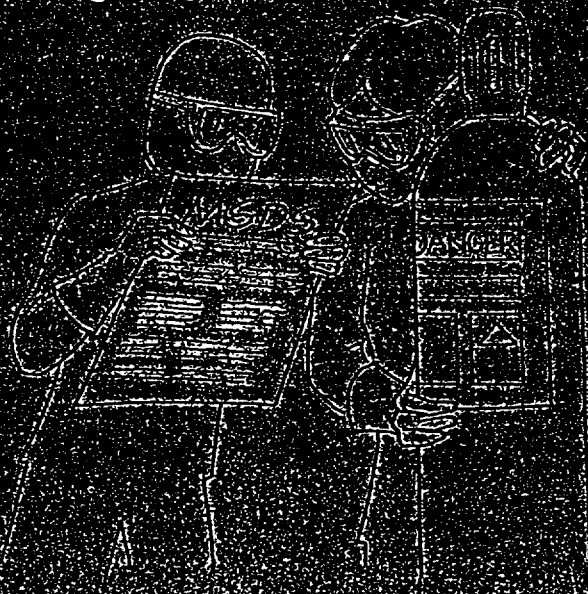


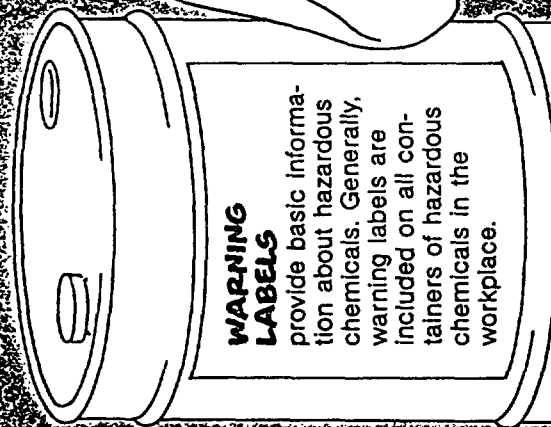
ABOUT WARNING LABELS AND MATERIAL SAFETY DATA SHEETS



ABS-003001

What are WARNING LABELS and MATERIAL SAFETY DATA SHEETS ?

They're ways for you to learn about hazardous chemicals you may work with on the job.



WARNING LABELS

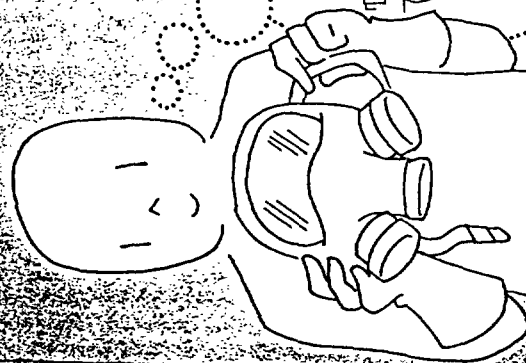
provide basic information about hazardous chemicals. Generally, warning labels are included on all containers of hazardous chemicals in the workplace.

MATERIAL SAFETY DATA SHEETS (MSDSs) give details about chemicals and their hazards. MSDSs are available from your employer.

The information in this booklet is not a substitute for standards or regulations issued by the Occupational Safety and Health Administration, provisions of any state or local "Right to Know" law, or your employer's hazard communication program.

Why should I KNOW ABOUT warning labels and MSDSs ?

Because they were created with your health and safety in mind.



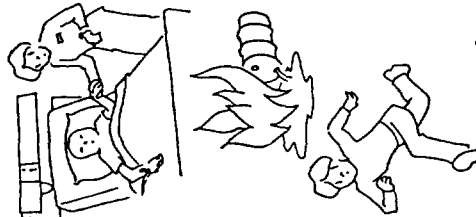
25 million Americans work with hazardous chemicals. They may face potential:

HEALTH PROBLEMS,

that can be caused by exposure to certain chemicals

SAFETY HAZARDS,

such as fires and explosions.



Information on warning labels and MSDSs can help you protect yourself. Learn how to use them . . .

READ THE WARNING LABEL

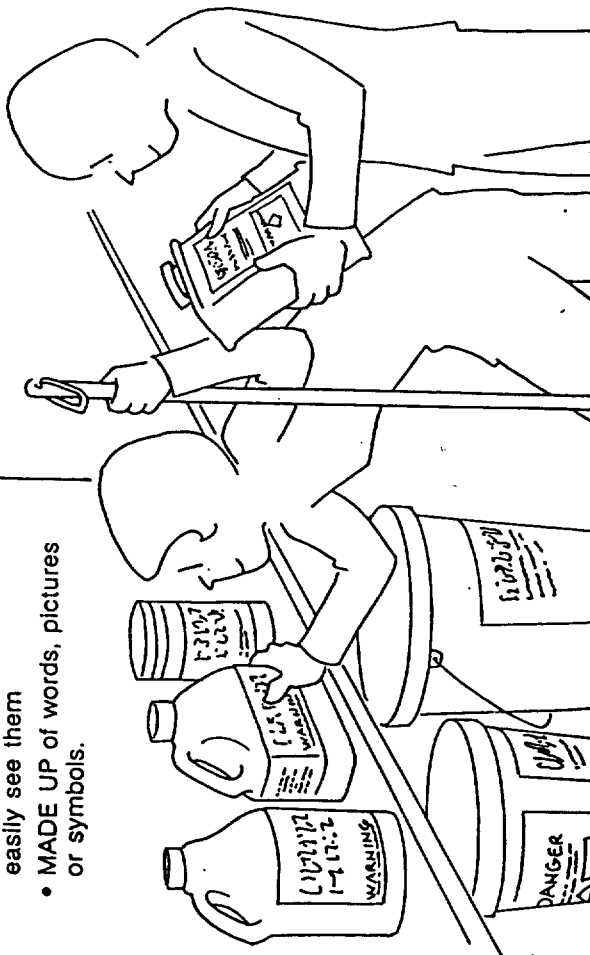
before handling any chemical. The label is the quickest way to learn about any hazards you face.

THE LABEL'S FORMAT MAY DIFFER

- from company to company, but the information is basically the same. Warnings are:
- PROVIDED by the chemical manufacturer
- WRITTEN in English (and other languages if necessary)
- DISPLAYED where you can easily see them
- MADE UP of words, pictures or symbols.

ALL CONTAINERS MUST BE LABELED EXCEPT:

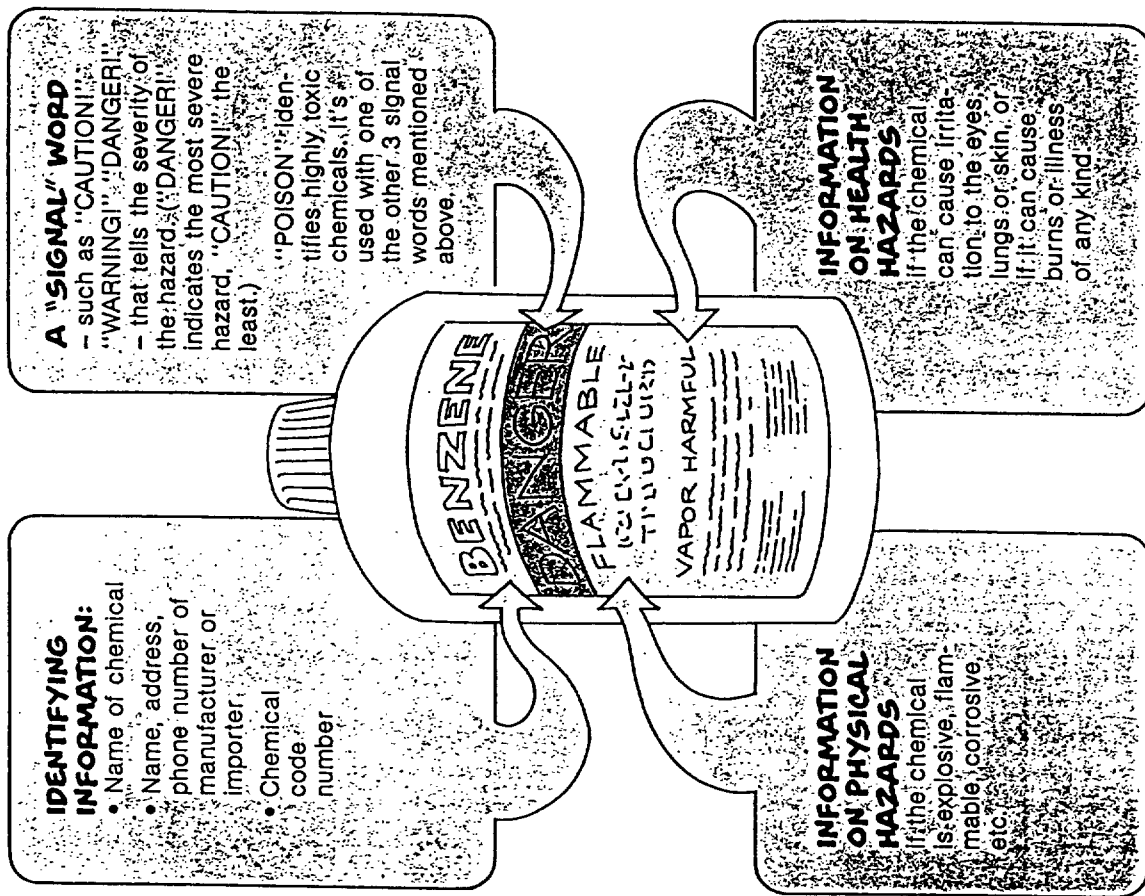
- STATIONARY CONTAINERS AND PIPES – as long as signs are posted that provide warning information
- PORTABLE CONTAINERS – as long as the material will be used immediately by the employee who transferred it.



READ THE LABEL EACH TIME YOU USE A CHEMICAL

Don't assume that a chemical will always be the same. For example, the manufacturer may change the blend, which may affect the specific hazards you face. Never use label colors or label caps to identify chemicals.

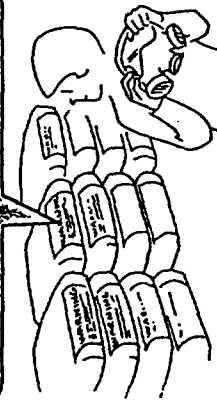
LABELS PROVIDE VALUABLE INFORMATION



WARNING LABELS MAY PROVIDE OTHER INFORMATION, TOO

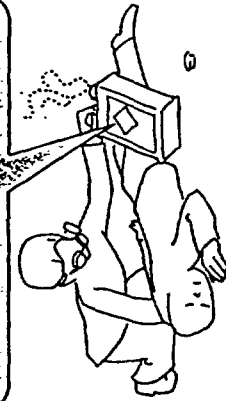
PRECAUTIONS

- How to avoid injury or illness. For example:
 - Don't get in eyes.
 - Wash thoroughly after handling.
 - Keep away from sparks!



FIRST-AID INSTRUCTIONS

- What to do if someone inhales fumes, is burned, etc.
- First-aid information may also include antidotes for poison, and how to care for a victim until medical help arrives.



PROCEDURES TO FOLLOW

- After fires, leaks or spills. For example:
 - Type of fire extinguisher to use.
 - How to safely clean up a spilled chemical.



HANDLING, STORAGE, AND DISPOSAL DETAILS

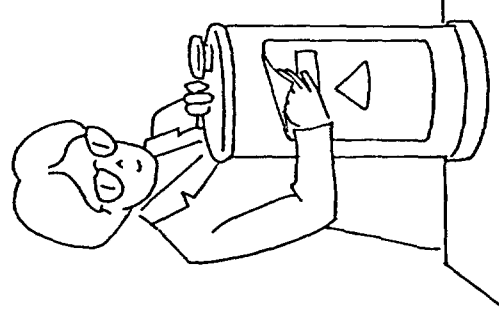
- Including:
 - Type of storage containers needed.
 - What to do with empty containers.
 - Types of personal protective equipment to use during handling and disposal.
 - Where and how to dispose of chemical.



USE A PORTABLE CONTAINER LABEL

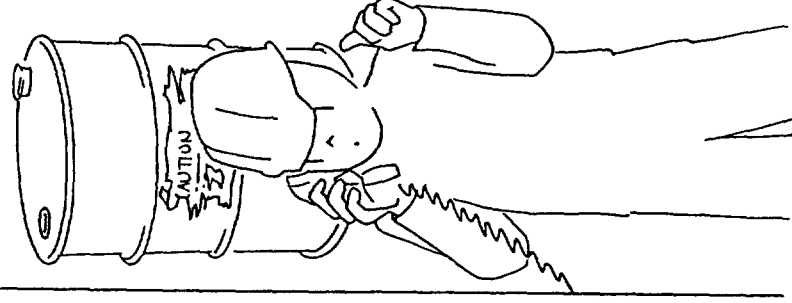
If there's any chance that someone else will handle the chemical or the container before you're finished, label it!

It's up to you to help protect your co-workers.



DISCOVER A TORN OR ILLEGIBLE LABEL

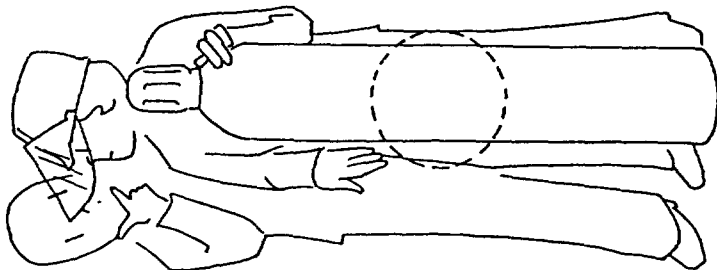
Report it to your supervisor so it can be replaced immediately.



FIND A CONTAINER WITH NO LABEL

Report it right away, and don't handle the product until you know for certain:

- WHAT it is
- HOW to handle it safely.



CHECK THE MSDS WHEN YOU NEED MORE INFORMATION

It will give you the specifics about:

THE CHEMICAL'S IDENTITY

- For example:
- NAME OF CHEMICAL and the trade name
- NAME, ADDRESS AND PHONE NUMBER of the manufacturer or importer
- CHEMICAL FORMULA
- HAZARD SEVERITY - the chemical's greatest hazard and the degree of danger
- An EPA (Environmental Protection Agency) NUMBER may also be included if the EPA regulates the chemical

HAZARDOUS INGREDIENTS OF MIXTURES

- For example:
- CHEMICAL INGREDIENTS listed by percentage of total weight
- NATURE OF HAZARD (cancer-causing substance, irritant, etc.)
- TWA (Time Weighted Average) - how much exposure to the chemical is safe over an 8-hour work day or less in some cases
- RESULTS OF ANIMAL STUDIES to determine how toxic the substance is

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1201. Standards must be
provided for specific ingredients.
IDENTITY (See label and list)

Section I
Manufacturer's Name
Address (Street, Box, City, State, and ZIP Code)

Section II - Hazardous Ingredients/Identifying Information
Hazardous Components (Specify Chemical Name, Common Name(s))

Physical/Chemical Characteristics

Section III - Physical/Chemical Characteristics
Boiling Point
Freezing Point
Flash Point
Evaporation Rate
Solubility
Vapor Pressure
Specific Gravity
Relative Density
Odor
pH
Viscosity
Stability
Reactivity
Hazardous Reactions
Other Data



PHYSICAL CHARACTERISTICS

For example, the MSDS can tell you about the chemical's:

- BOILING POINT - a low boiling point indicates a special fire hazard for flammable liquids
- VAPOR PRESSURE - the higher the pressure, the greater the chance of inhaling the vapor
- VAPOR DENSITY - vapors heavier than air can accumulate in low places (sewers, floors, tank bottoms) creating dangerous situations
- SOLUBILITY IN WATER - this can help determine the fire and health hazards of the chemical
- APPEARANCE AND ODOR - what the chemical usually looks and smells like
- SPECIFIC GRAVITY - whether the chemical will sink or float in water
- WATER REACTIVITY - whether the chemical will react with water, releasing a dangerous gas

ABOUT "TRADE SECRETS"

The name of a chemical or blend may be withheld if it's a "trade secret," but the hazards, physical characteristics, and all other information must be fully described.

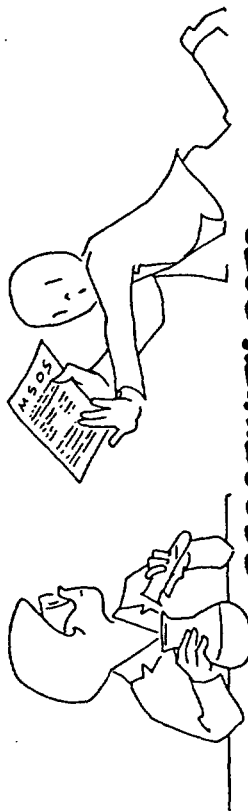
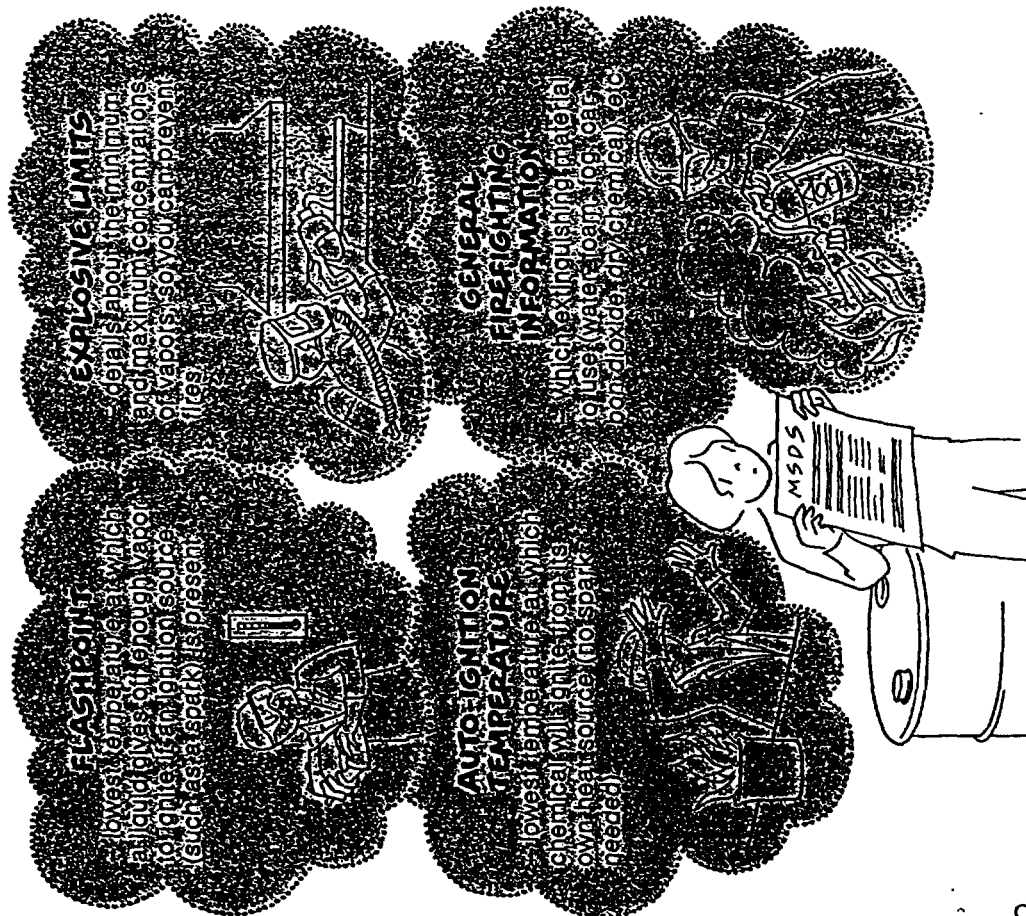
ABS-003005

MSDS COVER OTHER AREAS, TOO.

Working with hazardous chemicals
can be safer if you're familiar with:

FIRE AND EXPLOSION INFORMATION

For example:



REACTIVITY DATA

(information on what may cause dangerous reactions)
For example:

STABILITY

– how likely it is that a chemical will decompose, creating a dangerous situation.

If the material is unstable, the MSDS lists the conditions that would create a hazardous product.

HAZARDOUS DECOMPOSITION PRODUCTS

– what may be produced when the chemical reacts with other substances.

Sometimes, the product of a reaction is far more hazardous than the chemical itself.

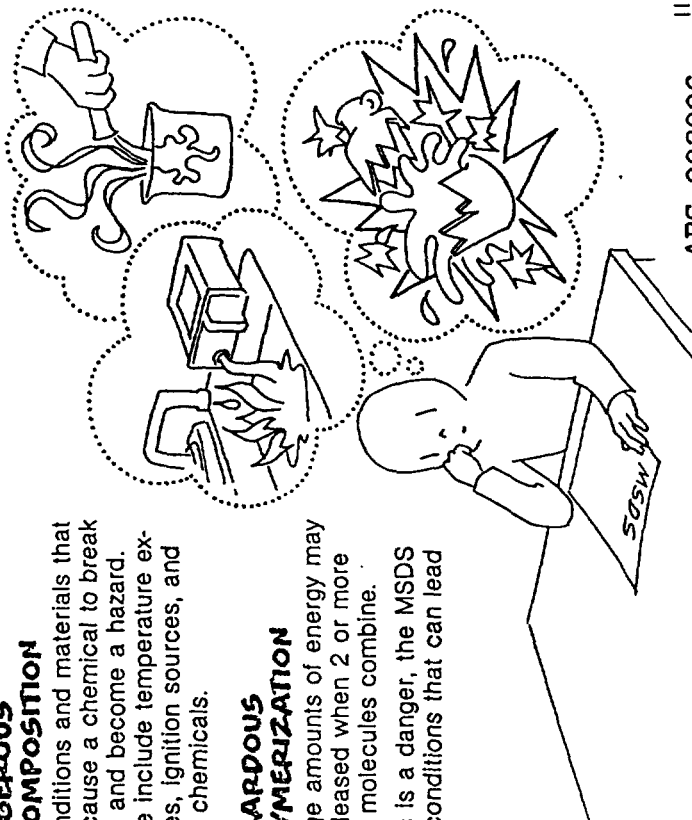
DANGEROUS DECOMPOSITION

– conditions and materials that can cause a chemical to break down and become a hazard. These include temperature extremes, ignition sources, and other chemicals.

HAZARDOUS POLYMERIZATION

– large amounts of energy may be released when 2 or more small molecules combine.

If this is a danger, the MSDS lists conditions that can lead to it.



MORE GUIDELINES PROVIDED IN THE MSDS

Because your health and safety are so important, the MSDS tells you about:

HEALTH HAZARD DATA

This information includes:

ROUTES OF EXPOSURE

how chemicals may enter the body (inhalation, absorption through skin, by mouth, etc.)

HEALTH EFFECTS

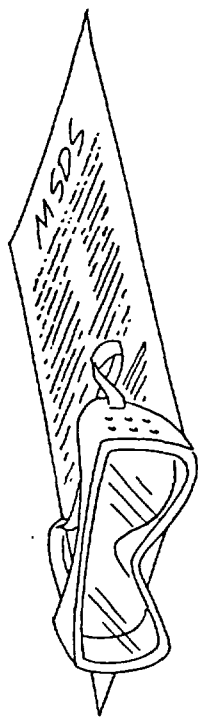
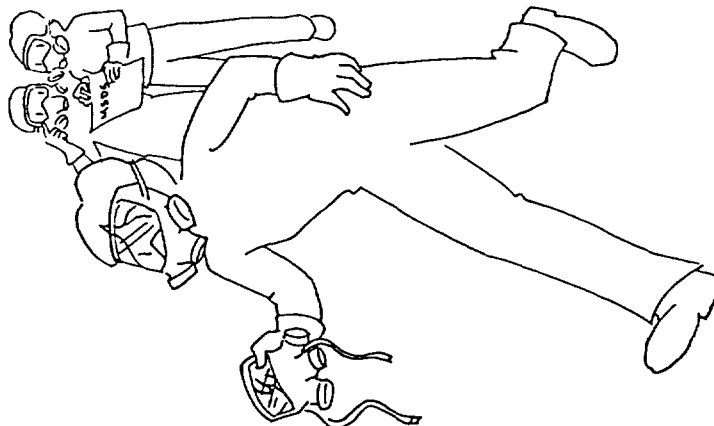
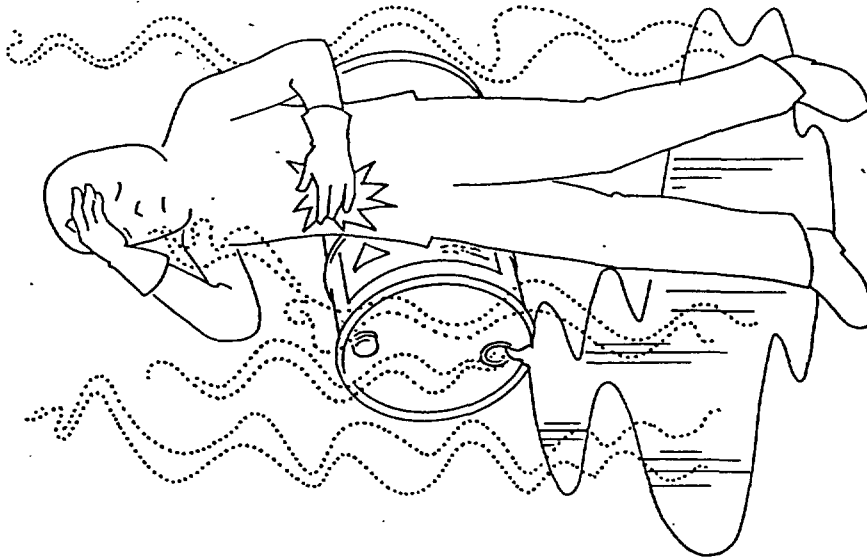
irritant (inflames skin), corrosive (destroys skin), carcinogen (causes cancer), etc. Hazards may be acute (come on rapidly after short-term exposure) or chronic (cause damage after long-term exposure)

SYMPTOMS

of acute and chronic poisoning

EMERGENCY FIRST AID

in case of inhalation, ingestion, burns, etc.



PERSONAL PROTECTIVE EQUIPMENT

This information includes:

TYPE OF EQUIPMENT NEEDED

such as respirators (full-face, supplied air, etc.), goggles, gloves, and other special clothing.



TYPE OF VENTILATION REQUIRED

and other physical data.



PERSONAL HYGIENE PROCEDURES

to follow when handling the chemical (for example, "wash hands after use," or "don't smoke or eat while using chemical").



YOU CAN ALSO COUNT ON THE MSDS

for this information:

HOW TO HANDLE SPILLS, LEAKS AND DISPOSAL

The MSDS tells about:

METHODS

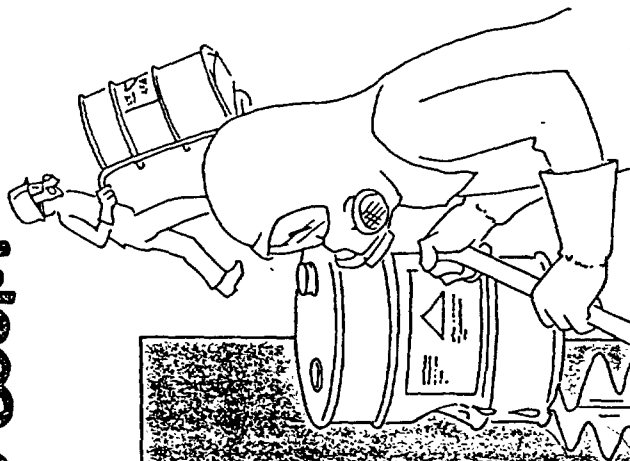
for controlling and cleaning up spills and leaks

MATERIALS

equipment and protective equipment to use. Hazardous reactions may be more likely after a spill, so you may need different equipment than you would for routine handling.

HOW TO DISPOSE

of excess, used or spilled material (bring to a landfill, hazardous waste dump, etc.)



SPECIAL PRECAUTIONS

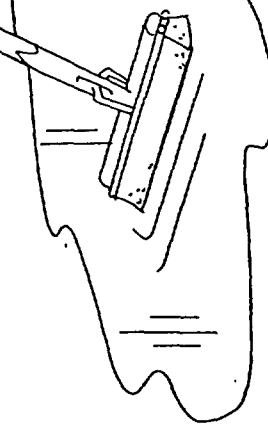
For example:

ADDITIONAL INFORMATION

for handling and storage (proper temperature and ventilation; reaction hazards to be aware of)

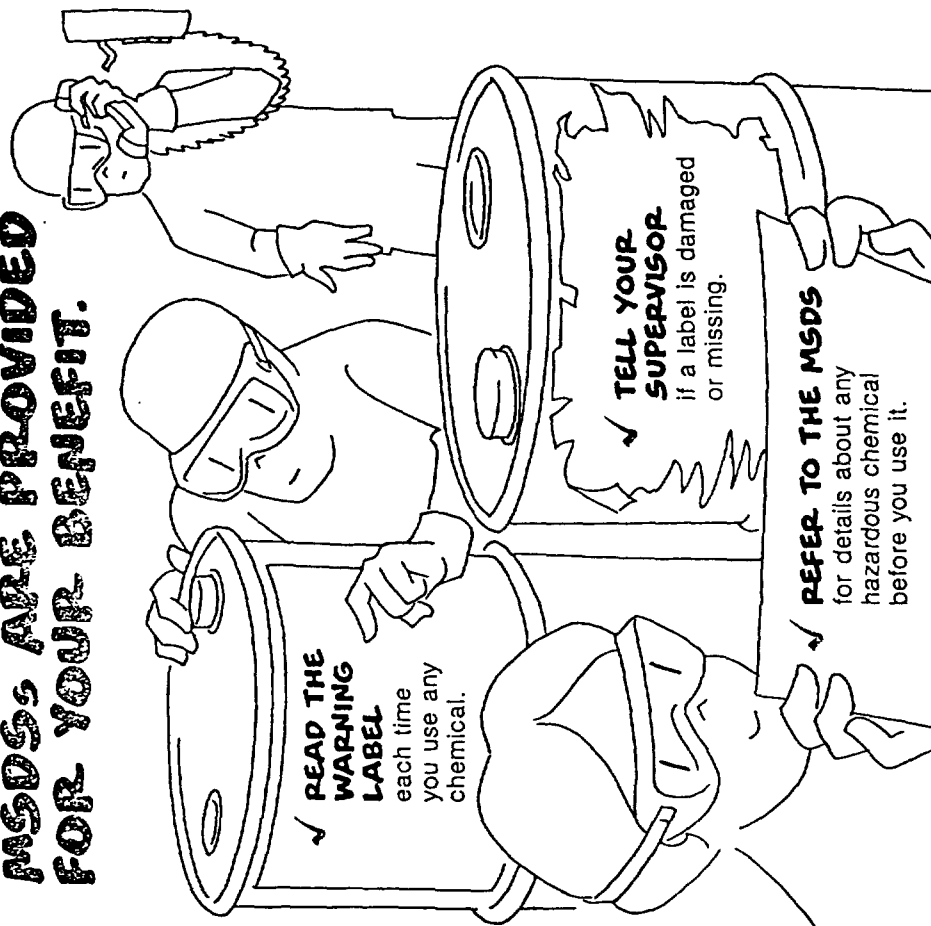
SPECIAL DIRECTIONS

not covered elsewhere, such as special fire-fighting instructions (for example, "wear self-contained breathing apparatus," or "water may scatter flames").



So--

WARNING LABELS AND MSDS ARE PROVIDED FOR YOUR BENEFIT.



✓ **READ THE WARNING LABEL** each time you use any chemical.

✓ **TELL YOUR SUPERVISOR** if a label is damaged or missing.

✓ **REFER TO THE MSDS** for details about any hazardous chemical before you use it.

And, if you have any questions, ask your supervisor. Better safe than sorry!