TAB 7: THE HAZARD COMMUNICATION STANDARD

Contents

THE HAZARD COMMUNICATION STANDARD

A Quick Look at HazCom

OSHA's Hazard Communication Standard (HazCom) has been in effect since May 1988, and is also called the *"Right to Know"* Standard. Its intent is to protect healthcare workers from hazardous substances in the workplace. The HazCom Standard May 2012 updates align the OSHA standard with the United Nations' Globally Harmonized System (GHS) for chemical classification and labeling. While the basic requirements of HazCom are still in place, the intent was to provide employees the right to "understand" the hazards of the chemicals in their workplace.

To ensure that information about the dangers of hazardous chemicals used in this facility are known by all affected employees, this Hazard Communication program has been established and requires the transition to the use of uniformly formatted Safety Data Sheets (SDS) and new labeling requirements for all for all hazardous chemicals. These standardized SDSs are to be fully implemented by December 2015 and replace the existing material safety data sheets (MSDS).

Until that time either the current MSDS or the new SDS (as it becomes available) is acceptable as long as employees are trained on the information currently available in the healthcare facility. By December 2013, all employers must complete initial employee training on the new labeling elements, minimal training on the new SDS format, continue to maintain the updated SDSs, review current hazard communication program and update as necessary.

Determining Which Chemicals Are Hazardous

Chemical exposure may cause or contribute to many serious health problems such as heart ailments; central nervous system, kidney and lung damage; sterility; cancer; burns; and rashes. Some chemicals may also be safety hazards and have the potential to cause fires and explosions and other serious accidents.

To determine whether any substance in a medical practice needs an MSDS (SDS), use the following criteria:

1. Is the substance dangerous/hazardous?
2. Are employees exposed to it?

First, check all locations for chemicals, liquid or aerosol drugs and medications (tablet and capsule forms are exempt), disinfectants, and x-ray developers.

Examine the label of each to see if a warning is present, such as "Flammable," "Requires Ventilated Area," "Combustible" or "Corrosive." If a warning is present, the substance is considered hazardous by OSHA and is regulated under the HazCom Standard. As of June 1, 2015, all labels will be more defined and required to have a product identifier, pictograms, a signal word, hazard and precautionary statements, and supplier identification.

Then, determine whether employees are involved with the products in such a way that they could be exposed to them. For instance, do employees administer them to patients or do they simply give the bottles to patients to take home and administer. If the latter is the case, then you do NOT need an MSDS (SDS), since there is no chance of employee injury.

If employees administer a particular product check the product label or package insert that accompanies it. If there is a "caution," "warning," or "danger" section, then you do need an MSDS (SDS). Imagine an employee accidentally getting the solution in their eye. What would need to be done in this instance? The answer is on the MSDS (SDS) and any employee handling that product would need to know what to do.

Routes of Exposure to Hazardous Substances

The safest way to prevent chemical injury is to know the routes of entry that each chemical may take into the body and take precautions to ensure that contact is not made. In general, routes of exposure of a substance fall into one of the following categories:

1. **Inhalation.** The great majority of occupational exposure that affects the internal body structures results from breathing airborne substances. These substances may affect the respiratory track or pass from the lungs to other organs by way of the blood, lymph, or phagocytic cells. The type and severity of the action of toxic chemicals depends on the nature of the chemical, the amount of chemical absorbed, the rate of absorption, individual susceptibility, and other factors.
2. **Ingestion.** This mode of exposure is far less common in medical surroundings than inhalation. This route of exposure may occur if the worker is not using preventive measures such as gloves and proper handwashing techniques, or is eating food or consuming drink in the work area.
3. **Skin Contact.** This is a frequent mode of chemical injury, resulting in localized irritation. A wide variety of substances can produce skin and mucosal hypersensitivity, including formaldehyde and phenols. The main portals of entry for chemicals through the skin are hair follicles, sebaceous glands, sweat glands, and cuts or abrasions of the outer layer of skin. The follicles and glands

are abundantly supplied with blood vessels, which facilitate the absorption of chemicals into the body.

4. **Eye Contact.** Eyes are very sensitive to contact with most chemicals, resulting in irritation. Eyes are vascular organs and rapidly absorb many chemicals. Alkaline materials, phenols, and strong acids are particularly corrosive and can cause permanent loss of vision.
5. **Injection.** This route of exposure can occur inadvertently through mechanical injury from glass or metal contaminated with chemicals, or when toxic chemicals are handled in syringes.

Material Safety Data Sheets/Safety Data Sheets

A key requirement for compliance with HazCom is the availability of Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) for hazardous chemicals. An MSDS (SDS) contains emergency, precautionary and general information about hazardous substances.

Compile a master list of all hazardous substances using the **Hazardous Substances List** behind **Tab 11: Master Record Forms (Form 19)** in this OSHA Program Manual.

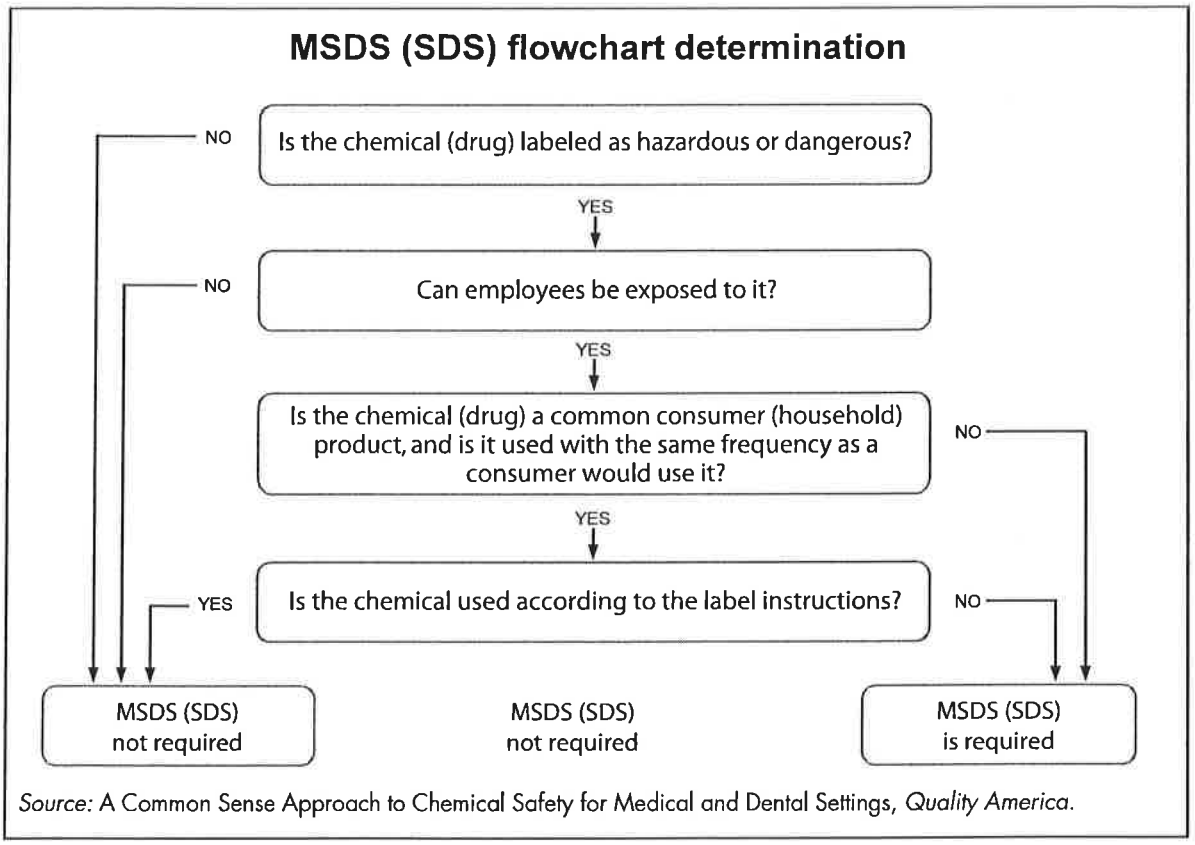
Examples of Substances Requiring MSDS (SDS)

- Drugs and pharmaceuticals except those in solid, "final form" (tablets, pills, capsules) for direct administration to the patient. Tablets or pills designed to be dissolved or crushed by employees prior to administration are not in "final form" and require MSDS (SDS). Package inserts and the Physicians' Desk Reference cannot substitute for manufacturers' MSDS (SDS).
- A product containing a hazard warning that is available commercially to the general public and is NOT used exactly as directed on the label or is NOT used with the same frequency as the general public would use it.

Substances such as bleach, chemotherapy drugs, some injectible drugs, alcohol hand sanitizer and glutaraldehyde DO require MSDS (SDS).

Substances Not Requiring MSDS (SDS)

- Any product that does <u>not</u> bear a hazard warning.
- A product that does contain a hazard warning, but is available commercially to the general public and is used exactly as instructed on the label (e.g., some cleansers).



Source: A Common Sense Approach to Chemical Safety for Medical and Dental Settings, *Quality America*.

Information Required on MSDS (SDS)

Safety data sheets will have a specified 16-section standard format and include the following information. MSDS have similar information but do not have a standard format.

(i) **Section 1,** Product and Company Identification, supplier's name, address, phone number.

(ii) **Section 2,** Hazard(s) identification; all ingredients which are health hazards, regardless of the concentration. Hazards will be rated on the concentrations of the ingredients in the product.

(iii) **Section 3,** Composition/information on ingredients; Chemical and common names including mixtures of chemicals and concentrations.

(iv) **Section 4,** First-aid measures; Emergency/first aid procedures by route of exposure; the need for an eyewash station may be listed here.

(v) **Section 5,** Fire-fighting measures; Suitable (and unsuitable) extinguishing media, precautions and specific hazards arising from products of combustion.

(vi) **Section 6,** Accidental release measures; Emergency response precautions and personal protective equipment needed; procedures for cleanup of spills and leaks.

(vii) **Section 7,** Handling and storage; Precautions for safe handling, storage and use.

(viii) **Section 8,** Exposure controls/personal protection; Regulatory exposure limits, use of personal protective equipment (PPE), work practice controls and ventilation to minimize exposures.

(ix) **Section 9,** Physical and chemical properties; Such as vapor pressure, specific gravity, color, odor, pH, appearance and physical hazards of the chemical, i.e., flammability and explosive limits. Vapor pressure indicates how easily ingredients in a chemical substance will change from a liquid to a gas. The higher the number, the more quickly a product will evaporate.

(x) **Section 10,** Stability and reactivity; Risks of explosion of the product in presence of static discharge or impact, incompatible materials, conditions to avoid.

(xi) **Section 11,** Toxicological information; Likely routes of exposure, symptoms, delayed and immediate effects, listing as to whether the chemical is toxic, a carcinogen or reproductive hazard including the OSHA permissible exposure level, any limits recommended by the manufacturer, NIOSH, ACGIH, IARC, NTP and ASDTR.

(xii) **Section 12,** Ecological information; Environmental impacts if known.

(xiii) **Section 13,** Disposal considerations; How to handle, manage and dispose of the chemical waste.

(xiv) **Section 14,** Transport information; Shipping and labeling requirements.

(xv) **Section 15,** Regulatory information; Safety, health and environmental regulations specific for the product in question.

(xvi) **Section 16,** Other information, including date of preparation or last revision.

How to Get MSDS (SDS)

MSDSs (SDSs) are available free of charge from the manufacturer of the substance and may be sent with the shipment. MSDSs (SDSs) are also available over the Internet at the manufacturer's website.

Where to Keep MSDS (SDS)

File MSDS (SDS) in the binder accompanying the OSHA Program Manual. Also, provide copies of MSDS (SDS) at each location where the hazardous substance is used, if it is distant from the central location. Be sure employees know where MSDSs (SDSs) are kept and that they have easy access to them.

It is permissible to have your MSDS (SDS) files online or on a computer if employees can readily access the files in the workplace. Be sure to train employees on how to access the MSDS (SDS) file and that there are no barriers to online access such as password-locked

computers. Identify in the written Hazard Communication Plan backup measures in case the online system goes down.

Classification of Hazardous Substances

Chemicals often used in medical facilities are classified as:

1. **Corrosive.** Corrosive substances destroy tissue and cause permanent changes in the tissue, such as scarring. Common corrosive agents may include ammonia. Use of corrosive chemicals requires ready access to an eyewash station.
2. **Toxic.** A term that can be applied to almost any substance in quantity. A substance is considered toxic if serious biologic effects may follow inhalation, ingestion, or skin contact with relatively small amounts. An example is "teratogenic substances" which can cause malformation of a fetus. Women who are pregnant or trying to become pregnant should be aware of teratogens in their workplace.
3. **Strong Sensitizer.** These substances cause little or no reaction upon initial contact, but may cause a marked reaction after subsequent exposures. This category may include some adhesives, detergents and high level disinfectants.
4. **Ignitable.** These substances include any chemical that can burn. The term includes both **flammables** and **combustibles**. Flammable liquids have a flash point below 140°F and are classified in Class 1A, Class 1B, Class 1C or Class II. Common flammable items are acetone and alcohol. Combustible liquids have a flash point at or above 140°F and are classified as Class IIIA and Class IIIB.

Flammable & Combustible Liquids

Flammables Have Flashpoints Below 140°F.			
Class	**Flash Point**	**Boiling Point**	**Examples**
1A	<73° F	<100°F	acetaldehyde, ethyl ether, cyclohexane.
1B	<73° F	>100°F	acetone, benzene, toluene, and alcohol hand sanitizers.
1C	>73° F	<100°F	hydrazine, styrene, and turpentine.
II	>100°F	<140°F	acetic acid, naptha, and stoddard solvent.

Combustibles Have Flashpoints at or Above 140°F			
Class	**Flash Point**	**Boiling Point**	**Examples**
IIIA	>140°F	<200°F	cyclohexanol, formic acid, and nitrobenzene.
IIIB	>200°F	-	formalin and picric acid.

Storage of Hazardous Substances

Read all chemical labels carefully to determine other factors for the proper use and storage of hazardous liquids such as ignition temperature, explosive limits (LEL or UEL), vapor pressure, specific gravity, and vapor density. Purchase chemicals in a volume that will be consumed before the expiration date.

OSHA does not require the use of flammable storage cabinets unless the total amount of flammable and/or combustible liquids reaches a given amount. The amount of liquid that may be stored outside of a cabinet in any one fire area of a building cannot exceed:

- 25 gallons of Class IA liquids in containers.
- 120 gallons of Class IB, IC, II, or III liquids in containers.
- 660 gallons of Class IB, IC, II, or III liquids in a single portable tank.

Not more than 60 gallons of Class I or Class II liquids, nor more than 120 gallons of Class III liquids may be stored in a storage cabinet. Also, not more than three such cabinets may be located in a single fire area.

Local authorities and insurance companies may require the use of flammable storage cabinets in quantities less than that of OSHA.

Maximum Allowable Size of Containers					
Container Type	**Flammable Liquids**				**Combustible Liquids**
	Class IA	Class IB	Class IC	Class II	Class III
Glass or approved plastic	1 pt.	1 qt.	1 gal.	1 gal.	1 gal.
Metal (other than DOT drums)	1 gal.	5 gal.	5 gal.	5 gal.	5 gal.
Safety Cans	2 gal.	5 gal.	5 gal.	5 gal.	5 gal.
Metal Drum (DOT spec.)	60 gal.	60 gal.	60 gal.	60 gal.	60 gal.
Approved Metal Portable Tanks	660 gal.	660 gal.	660 gal.	660 gal.	660 gal.

The exceptions to this rule are medicines, beverages, foodstuffs, cosmetics, and other common consumer products, when packaged according to commonly accepted practices.

Hazardous Chemicals with Permissible Exposure Limits (PEL)

Some chemicals frequently used in medical facilities that have recommended or required employee exposure limits are shown below. Most medical offices will not be required to monitor these levels since exposures are well below these limits. For instance, medical facilities that store small vials of formaldehyde to transport tissue for pathology testing would certainly fall below the established limits. Glutaraldehyde, which is often used as a high-level disinfectant in medical practices should also remain well below the permissible exposure limits when diluted in a tightly covered container. Safety measures for glutaraldehyde are discussed in detail in **Tab 8: Decontamination.**

Chemical	Exposure Limit
Formaldehyde	0.75 part per million (ppm) over 8 hours or 2 ppm over a 15 minute period.
Glutaraldehyde	There is no OSHA PEL. 0.2 ppm NIOSH REL; ACGIH 0.05 ppm ceiling concentration.
Ethylene Oxide (EtO)	1 ppm over 8 hours or 5 ppm over a 15-minute period.
Nitrous Oxide	25 ppm.
Mercury	0.1 mg/m^3 over an 8-hour shift.

If there is any question whether employee exposure exceeds permissible limits, contact a local industrial hygiene company to test the HVAC system. These companies will ensure that your workplace air supply system has an adequate number of air changes per hour to reduce or eliminate employee exposure to these chemicals. For circumstances where exposure limits in your workplace fluctuate or reach permissible limits, provide clip-on monitoring badges for employees. Companies that supply air monitoring badges are listed in **Tab 8: Decontamination.**

Be sure that anesthesia equipment is serviced and monitored semiannually for leakage as a preventive measure.

Labeling Hazardous Substances

HazCom Pictograms and Hazard Statements

Hazardous chemicals are labeled appropriately when bought from the manufacturer, so there is no need to re-label them upon receipt. The label must include:

- Identity or contents.
- Chemical name and the common or trade name of the contents.
- Pictogram (s)

- Signal word, "danger" or "warning"
- Hazard and precautionary statements about storage use, first aid and emergency procedures.
- The name, address, and phone number of the chemical supplier.

Be sure to label, tag, or mark containers of any chemical that has been transferred to a secondary, unlabeled container with the contents, the dilution, and any hazardous warning, including specific effects of the chemical and target organs affected.

Advise the OSHA Safety Officer if there are unlabeled containers in the workplace or if a label has become illegible. The OSHA Safety Officer ensures that labels are replaced when deteriorated or illegible.

Pictograms

These pictograms must include the red diamond with the black picture and text. OSHA feels that these pictograms will be more readily understood than other means of hazard labeling.

Health Hazard  • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	**Flame**  • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides	**Exclamation Mark**  • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  • Gases Under Pressure	**Corrosion**  • Skin Corrosion/Burns • Eye Damage • Corrosive to Metals	**Exploding Bomb**  • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  • Oxidizers	**Environment (Non-Mandatory)**  • Aquatic Toxicity	**Skull and Crossbones**  • Acute Toxicity (fatal or toxic)

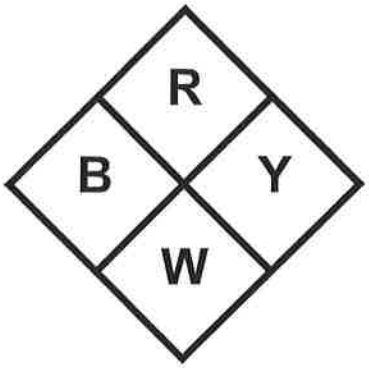
The new pictograms can be downloaded from the OSHA website: *www.osha.gov/dsg/hazcom/pictograms/index.html.*

NFPA Label System

Until 2015 when the revised HazCom Standard needs to be fully implemented, custom hazard labeling is acceptable as long as workers are trained. While OSHA never specifically mandated the National Fire Protection Association's (NFPA) standard hazard identification system (diamond-shaped, color-coded symbol, below), some medical facilities have adopted it to standardize hazard labels. The NFPA system allows healthcare personnel to assess health hazards (blue quadrant), flammable hazards (red quadrant), reactivity/stability hazards (yellow quadrant), and other special hazards (white quadrant), at a glance. In addition, each quadrant shows the magnitude of severity, graded from 0 to 4, of the hazards within the posted area.

0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe

- The top diamond is RED and contains the flammability hazard rating.
- The left diamond is BLUE and indicates the health hazard rating.



- The right diamond is YELLOW and indicates the reactivity rating of the chemical.
- The bottom diamond is WHITE and focuses attention on any special hazards of the chemical, such as oxidizer, water reactive, corrosive or carcinogen.

Safety Tips for Working with Hazardous Substances

All employees working with hazardous substances are provided with personal protective equipment (PPE) according to specific OSHA standards or, where indicated, by MSDS (SDS in section 8). These employees receive education regarding when PPE is necessary; how to properly don, doff, adjust, and wear it; the limitations of PPE; and the proper care, maintenance, useful life, and disposal of PPE.

Other general safety rules for working with chemicals are:

- Avoid direct contact with hands, face, and clothing, including shoes.
- Never taste or smell a chemical.

- Do not smoke, drink, or eat in chemical use and storage areas.
- Never use any chemical from an unlabeled container.
- Keep appropriate safety devices available for employees who work with, or in the vicinity of, hazardous substances. For example, if a substance could cause eye damage, an emergency eyewash must be available in close proximity to the substance. Specifications for the types of eyewashes required and their locations are located behind **Tab 8: Decontamination.**
- If flammable substances are present, fire extinguishers and/or fire blankets must be present in the near vicinity. Products with a pH of less than five or greater than nine should not be handled without gloves and appropriate personal protective equipment unless use of other ppe is specifically listed on the MSDS (SDS).

Hazardous Chemical Waste Packaging & Disposal

Read the MSDS (SDS) carefully for guidance on disposal of hazardous chemicals. The Resource Conservation and Recovery Act (RCRA) statutes of the Environmental Protection Agency (EPA) affect the handling of chemical hazardous waste (not infectious waste). Most physician offices are affected by RCRA (or its state-administered counterpart) because they generate chemical hazardous waste, although those that generate less than 100 kg (about 27 gallons) per month are classified as very small-quantity generators that are conditionally exempt from RCRA.

Facilities that generate between 100 kg and 1,000 kg per month are considered small-quantity generators and must obtain a 12-digit EPA identification number. Hazardous wastes must be tracked from the time it is generated until its disposal with a manifest system (cradle to grave) and shipped in EPA-approved hazardous waste trucks.

Typical healthcare hazardous wastes are:

- Acetone methanol
- Ethyl ether
- Potassium cyanide
- Nitrogen dioxide
- Epinephrine base*
- Mercury
- Methanol
- Formaldehyde
- Toluene
- Silver

Regardless of your RCRA classification, do not discharge pollutants into the water/sewer system without first verifying with local publicly owned treatment works that

it meets your state's criteria for discharge. For more information about disposing of chemical hazardous waste, see the **Hazardous Waste Disposal** section in **Tab 8,** or contact your state or local Environmental Protection Agency office.

** In October 2007 the EPA determined the scope of the epinephrine hazardous waste listing is only epinephrine base, and does not include epinephrine salts. Most, if not all, of the epinephrine used in medical applications is one of several epinephrine salts. The EPA statement applies to the federal level only. As most states implement their own EPA programs, some may regulate epinephrine salts more stringently than the federal regulations. Therefore, we recommend you contact your state agency to determine the regulation in your state, especially if your facility is located in California, Minnesota,, Michigan, Oregon, Rhode Island, or Washington (where laws are typically stricter than the federal regulations.) Find your state contact information at* http://www.epa.gov/osw/wyl/stateprograms.htm.

See **Tab 9: Specialty Services** for disposal of cytotoxic drugs and radioactive materials. For instructions about cleaning up large volume spills, see **Tab 8: Decontamination.**

Medications Security & Disposal

This information is not specifically required by OSHA, but is included in this section because of the fact that some prescription drugs are considered hazardous substances and require Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS).

Security for Prescription Drugs

Store all prescription drugs, including samples and prescription pads, in a secured area with controlled access to minimize the risk of theft or unauthorized use.

Security for Controlled Substances

- Keep Drug Enforcement Administration (DEA) ordering forms and controlled substances in a secure and locked area. Limit access to these forms and drugs to specific staff selected by management.
- Maintain a record of the date, name, strength, and amount of controlled drugs ordered.
- Keep a dispensing record that includes date, patient name, drug name and strength of drug, amount dispensed, physician name, and name and signature of person who dispensed the drug.
- Take inventory at regular intervals and resolve discrepancies between the inventory record and the dispensing record.

Disposal of Prescription Drugs

- Check prescription drugs periodically for expiration.
- Remove expired drugs from stock.
- Check package insert or MSDS (SDS) for any special disposal requirements.
- Document how expired drugs are disposed of after removal from stock (e.g., sharps containers or pharmaceutical collection containers, etc.).

Disposal of Hazardous Drugs

- Special handling may be required for toxins, biological and cytotoxic drugs, see **Tab 9: Specialty Services.** As above, check the MSDS (SDS) and have proper disposal containers available.
- Appoint one staff person to have overall responsibility for ensuring proper disposal of expired medications.

Medical Consultation & Injury Evaluation

Employees who need medical attention due to a chemical exposure will use the health services at the following facility:

_____	_____
Name of healthcare facility	Telephone number

If an employee requests evaluation by a personal physician, that request will be honored. Medical evaluations and consultations are performed by or under the supervision of a licensed physician without cost to the employee, without loss of pay, and at a reasonable time and place.

Employees will be medically evaluated when:

- Signs and symptoms are consistent with a chemical exposure.
- Environmental monitoring reveals an exposure level above the proper threshold, if appropriate (formaldehyde, etc.).

Record chemical exposures on the **Accident Report/Sharps Injury Log** located behind **Tab 11: Master Record Forms (Form 14).**

The OSHA Safety Officer will provide the following information to the referring physician:

- Identity of the hazardous chemical to which the employee was exposed.
- A description of the conditions under which exposure occurred.

- A description of the signs and symptoms of exposure.
- A copy of the MSDS (SDS) for the chemical involved.

HazCom Recordkeeping

OSHA's Hazard Communication Standard does not mention how long an employer must keep MSDS (SDS) for chemicals no longer in use in the workplace. OSHA does require that you maintain records of employee exposures to hazardous chemicals for 30 years, so it makes sense to keep them for that long. But, there's no need to keep them in your MSDS (SDS) binder that is accessible to employees if they take up too much space. Archiving or filing MSDS (SDS) that are no longer in use meet the intent of the Hazard Communication Standard.

Effective Dates: The table below summarizes the phase-in dates required under the revised Hazard Communication Standard (HCS):

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015* December 1, 2015	Compliance with all modified provisions of this final rule, except: The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label	Chemical manufacturers, importers, distributors and employers
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers
Transition Period to the effective completion dates noted above	May comply with either 29 CFR 1910.1200 (the final standard), or the current standard, or both	Chemical manufacturers, importers, distributors, and employers

OSHA® FactSheet

December 1st, 2013 Training Requirements for the Revised Hazard Communication Standard

OSHA revised its Hazard Communication Standard (HCS) to align with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and published it in the Federal Register in March 2012 (77 FR 17574). Two significant changes contained in the revised standard require the use of new labeling elements and a standardized format for Safety Data Sheets (SDSs), formerly known as, Material Safety Data Sheets (MSDSs). The new label elements and SDS requirements will improve worker understanding of the hazards associated with the chemicals in their workplace. To help companies comply with the revised standard, OSHA is phasing in the specific requirements over several years (December 1, 2013 to June 1, 2016).

The first compliance date of the revised HCS is December 1, 2013. By that time employers must have trained their workers on the new label elements and the SDS format. This training is needed early in the transition process since workers are already beginning to see the new labels and SDSs on the chemicals in their workplace. To ensure employees have the information they need to better protect themselves from chemical hazards in the workplace during the transition period, it is critical that employees understand the new label and SDS formats.

The list below contains the minimum required topics for the training that must be completed by December 1, 2013.

➢ Training on label elements must include information on:
- Type of information the employee would expect to see on the new labels, including the
  - ✓ **Product identifier:** how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number or batch number. The manufacturer, importer or distributor can decide the appropriate product identifier. The same product identifier must be both on the label and in Section 1 of the SDS (Identification).
  - ✓ **Signal word:** used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. There are only two signal words, "Danger" and "Warning." Within a specific hazard class, "Danger" is used for the more severe hazards and "Warning" is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have. If one of the hazards warrants a "Danger" signal word and another warrants the signal word "Warning," then only "Danger" should appear on the label.
  - ✓ **Pictogram:** OSHA's required pictograms must be in the shape of a square set at a point and include a black hazard symbol on a white background with a red frame sufficiently wide enough to be clearly visible. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label. OSHA has designated eight pictograms under this standard for application to a hazard category.
  - ✓ **Hazard statement(s):** describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. For example: "Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin." All of the applicable hazard statements must appear on the label. Hazard statements may be combined where appropriate to reduce redundancies and improve readability. The hazard statements are specific to the hazard

classification categories, and chemical users should always see the same statement for the same hazards, no matter what the chemical is or who produces it.

- ✓ **Precautionary statement(s):** means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling.
- ✓ **Name, address and phone number of the chemical manufacturer, distributor, or importer**

- How an employee might use the labels in the workplace. For example,
  - ✓ Explain how information on the label can be used to ensure proper storage of hazardous chemicals.
  - ✓ Explain how the information on the label might be used to quickly locate information on first aid when needed by employees or emergency personnel.
- General understanding of how the elements work together on a label. For example,
  - ✓ Explain that where a chemical has multiple hazards, different pictograms are used to identify the various hazards. The employee should expect to see the appropriate pictogram for the corresponding hazard class.
  - ✓ Explain that when there are similar precautionary statements, the one providing the most protective information will be included on the label.

➢ Training on the format of the SDS must include information on:

- Standardized 16-section format, including the type of information found in the various sections
  - ✓ For example, the employee should be instructed that with the new format, Section 8 (Exposure Controls/Personal Protection) will always contain information about exposure limits, engineering controls and ways to protect yourself, including personal protective equipment.
- How the information on the label is related to the SDS
  - ✓ For example, explain that the precautionary statements would be the same on the label and on the SDS.

As referenced in Dr. Michaels' OSHA Training Standards Policy Statement (April 28, 2010) – with all training, OSHA requires employers to present information in a manner and language that their employees can understand. If employers customarily need to communicate work instructions or other workplace information to employees in a language other than English, they will also need to provide safety and health training to employees in the same manner. Similarly, if the employee's vocabulary is limited, the training must account for that limitation. By the same token, if employees are not literate, telling them to read training materials will not satisfy the employer's training obligation.

OSHA's Hazard Communication website (http://www.osha.gov/dsg/hazcom/index.html) has the following QuickCards and OSHA Briefs to assist employers with the required training.

- Label QuickCard (English/Spanish)
- Pictogram QuickCard (English/Spanish)
- Safety Data Sheet QuickCard (English) (Spanish)
- Safety Data Sheet OSHA Brief
- Label/Pictogram OSHA Brief (to come)

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.

U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

DSG FS-3642 02/2013