TDCJ Risk Management's

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Hazard Communication Standard

OSHA's Hazard Communication Standard is now aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

The Globally Harmonized System (GHS) is an international approach to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets. As of December 1, 2015, all labels provided by the manufacturers or distributors of hazardous chemicals are required to be GHS compliant. GHS compliant labels will have pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identification.

Labels must use the same product identifier that is on the Safety Data Sheet (SDS) for the hazardous chemical.

Types of Containers

Public employers in Texas are not allowed to remove or deface a label on an existing container of a hazardous chemical unless it is illegible, inaccurate, or does not conform to the OSHA standard or other applicable labeling requirement. All hazardous chemical containers must be relabeled prior to use by employees.

Containers are any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical or contains multiple smaller containers of an identical hazardous chemical.

Individual Stationary Process Containers

Individual stationary process containers may be labeled using signs, placards, process sheets, batch tickets, operating procedures, or other such written materials as long as the alternative method identifies the containers to which it is applicable and conveys the label information required by the THCA.

Primary Containers

Primary containers are the containers in which the hazardous chemical was received from the manufacturer or distributor.

If a primary container must be relabeled, the new label will at least contain:

- The identity of the hazardous chemical as it appears on the SDS.
- The pertinent physical and health hazards, including the organs that would be affected.
- The manufacturer's name and address.

A Secondary Container

A secondary container is one to which the hazardous chemical is transferred after receipt from the supplier. Secondary containers must be labeled with at least the identity appearing on the SDS and the appropriate hazard warnings.

Portable Containers

Portable containers intended for the immediate use of the employee/offender who performs the transfer do not require labels.

Labeling Requirements

The following information would be seen on the new labels:

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).

Secondary containers must be labeled with at least the identity appearing on the MSDS/SDS and the appropriate hazard warnings. 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.

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.

Safety Data Sheets (SDS)

Master Index of MSDS/SDS

- A master index of all MSDS/SDS will be maintained in a central location in the event of an emergency.
- Typically, the most logical location will be the facility's medical department. In the event that the facility medical department is not suitable, then an appropriate area as determined by the risk manager and the facility administrator will be selected for storing the master index.
- The master index will consist of a duplicate hazard communication notebook prepared by the responsible department supervisor.

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the heading.

Sections 1-16 can be found at Environmental Advisory EA-05.09 (rev.4)

Hazard Categories

The diamond-shaped placards use these four color-coded categories to give at a glance a general idea of the hazards present:

- Health: blue, at the left. Injury hazard from burning materials
- Flammability: red, at the top. Susceptibility of materials to burning
- Reactivity: yellow, at the right. Susceptibility of materials to release energy
- Special hazards: white, at the bottom for hazards important to emergency response personnel;
- Additional special hazards in rectangular white boxes below the placard.

Hazard Rankings

The numbers in each box give the order of severity in emergency conditions such as spills, leaks, and fires, from four, indicating severe hazard or extreme danger, to zero, indicating no required warning.

The hazards may be expressed through words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the employer's education and training program, will reasonably provide employees with the specific information regarding the physical and health hazards, including the target organ effects of the hazardous chemical.

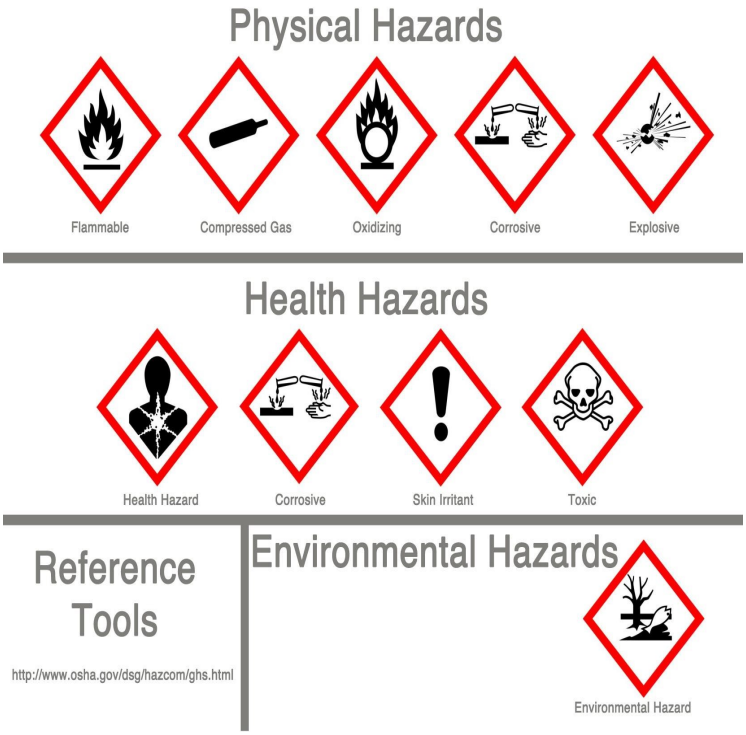
Pictograms

Pictogram: OSHA has designated eight pictograms under this standard for application to a hazard category.

Hazard statements: describe the nature of the hazards 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 statements: 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. The Hazard Communication Standard will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. There will only be one signal word on the label no matter how many hazards a chemical may have. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazards. The pictogram on the label is determined by the chemical hazard classification. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label.

Below are examples of pictograms to be used on the labels:



Personal Protective Equipment

Eye & Face Protection

Safety glasses with side shields, chemical goggles plus face shield if splashing
Hazard - Splash, splatter, spray in eyes or face

- Safety glasses will not stop all projectiles and may not catch liquid splashes. Use of chemical or safety goggles protects against these exposures
- Protective eyewear must fit closely to the eye and/or face to prevent exposure and they must be tight enough not to fall off, but must also be comfortable. Goggles can be worn over glasses and can be vented or non-vented depending on the hazard. Contact lens presents additional eye hazards and are not recommended.
- When protective eyewear becomes chipped, scratched, scraped, or headband has lost elasticity or is fraying, it should be replaced. Pits or scratches may affect impact resistance and wearer should inspect protection before wearing
- Inspect daily, clean with soap and water, or per manufacturer recommendation

Hand & Arm Protection

PPE: Latex, nitrile, rubber or neoprene gloves (referenced from MSDS/SDS)
Hazard: Skin contact

- Different gloves provided for each type of exposure hazard
- Torn, split, or otherwise damaged should not be worn. Loose gloves may not be worn around moving machinery or where there is a possibility of getting caught; and discoloration may indicate glove is past useful life
- Gloves soiled with chemicals assume their hazards; handle accordingly

Foot, Leg & Body Protection

PPE: Chemical splash apron, chemical resistant boots, laboratory coat, coveralls
Hazard: Chemical mixing

- Verify PPE material is suitable for each exposure
- Inspect for signs of cracks, holes, tears or other signs of failure
- Refer to manufacturer recommendations for cleaning and preserving

Non-Toxic Respiratory Protection

PPE: Nuisance dust mask
Hazard: Hot/cold air and non-toxic nuisance dusts, fumes, or mists

- Not for use as protection against airborne toxic particulates, gases, or vapors
- Filter material will eventually become loaded with particulates and passage of filtered air will become impossible (meaning that ALL of the subsequent air breathed will be air pulled in from the imperfect seal between face and filter)
- Typically disposable, refer to manufacturer recommendations

Eyewash and Safety Shower Use

Chemical Exposure to Eyes/Face

- Yell for help if someone else is in the area.
- Go to nearest eyewash and turn water all the way on.
- Aim water stream at the base of the nose.
- Hold eyelids open using thumb and index finger and roll eyeballs around to get maximum irrigation of the eyes.
- Remove contacts as soon as possible to ensure chemical is not trapped behind the lens and eye can be completely rinsed.
- Keep flushing for at least 15 minutes or until help arrives.
- If you are alone, call for assistance after flushing eyes for 15 minutes.
- Seek medical attention.

GHS vs NFPA 704

This new standardized labeling will replace the commonly known National Fire Protection Association (NFPA) 704 diamond. There are significant differences between the Hazard Communication Standard Globally Harmonized System (GHS) and NFPA hazard ratings. NFPA and GHS hazard identification numbers are used to rank hazards based upon their seriousness. Those rankings occurring under GHS are called Hazard Categories, with five indicating the lowest hazard and one indicating the most severe. The NFPA on the other hand also uses numbers to indicate hazard severity only in their systems, the maximum number four represents the most severe hazard and zero representing no hazard.

References

- Occupational Safety and Health Administration (OSHA) www.osha.gov
- Texas Department Of State Health Services www.dshs.state.tx.us
- EA-05.09: Hazard Communication Program
- AD-03.16: Chemical Control and Accountability

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Risk Management

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