

TerranearPMC Safety Share

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Week of June 3, 2019 – Hazard Communication & Labels

In 2012, OSHA promulgated their revised regulation for hazard communication, commonly referred to as HAZCOM 2012. The reason for a revision to the well-established “Employee Right-to-Know” regulation was that many international organizations, including the United Nations, realized that trade between countries was becoming an increasing factor and that meant hazardous chemicals were being shipped across international borders. In the United States, OSHA’s hazard communication standard was originally designed to ensure that workers in the US would be able to understand the hazards associated with the chemicals they were assigned to handle and store. Since its initial inception in 1983, workers throughout the world, including the US, have been importing chemicals manufactured outside their respective countries. From an U.S. perspective, imported chemicals could not be enforced to meet OSHA regulations. And that meant information pertaining to the hazards associated with these products would not be properly addressed or understood (as well as vice versa).

According to HazCom 2012 the revised OSHA regulations, under paragraph “f” for both general industry (29 CFR 1910.1200) and the construction industry (29 CFR 1926.59), “The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked.” The information on these labels shall provide:

- (i) Product identifier;
- (ii) Signal word;
- (iii) Hazard statement(s);
- (iv) Pictogram(s);
- (v) Precautionary statement(s); and,
- (vi) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

The product identifier is how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, synonyms, code number or batch number. The manufacturer, importer or distributor can decide the appropriate product identifier. The same product identifier must be placed on the label as well as in section 1 of the accompanying Safety Data Sheet (SDS).

The “signal word” is either “Danger” or “Warning.” The signal word, “Danger” obviously connotes a more severe concern than using “Warning.” A label cannot have both words.

A hazard statement appearing on the container label is designed to specifically inform users of the hazards associated with the material. For example: “causes damage to organs (*state all organs affected*) through prolonged or repeated exposure (*state route of exposure if no other routes of exposure cause the hazard*)”. Hazard statements may be combined where appropriate to reduce the information on the label and improve readability if all of the hazards are conveyed.

Pictograms – the method to convey hazards based on the internationally accepted symbols. There are nine symbols or pictograms that are accepted by the international community and a label may



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have more than one, depending on the number of hazards associated with the chemical. One pictogram is a simple exclamation mark which when considered with the hazard statement, conveys that the hazard may not be as significant as another chemical in the same hazard class that would have a more descriptive pictogram, such as a skull and cross bones (for poison or toxic materials), or a flame (for a highly flammable material). In these cases, the signal word may only be “warning” as opposed to “danger.” Another pictogram shows a fish upside down and a bare tree, indicating a concern to the environment. Because this concern is non-occupationally-related to worker health, OSHA does not enforce its presence on a label (However the EPA may be concerned). Pictograms shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible. The traditional NFPA 704 hazard identification diamond, indicating flammability, health, reactivity and special precautions is NOT an acceptable symbol – although it *may* be included on a container or SDS as an additional measure to notify employees of potential hazards.

There are four types of precautionary statements presented, “prevention,” “response,” “storage,” and “disposal.” The core part of the precautionary statement is presented in bold print. This is the text, except as otherwise specified, that shall appear on the label. Where additional information is required, it is indicated in plain text. For example, “Wear protective gloves/protective clothing/eye protection/face protection” and could read “wear eye protection.” Another example is “Use explosion-proof electrical/ventilating/lighting” and “Keep away from heat, sparks and open flames,” and “Store in a well-ventilated place.”

Lastly, the label needs to provide the name, address, and telephone number of the chemical manufacturer, importer, or responsible party. This allows the end-user to contact the responsible party if additional information is needed.

And while labels are generally required on all hazardous chemical containers, there are some exceptions. One exception is using signs placards, process sheets batch tickets, operating procedures, or other such written materials on a group of containers (in lieu of affixing labels to individual stationary process containers) as long as these methods identify the applicable containers and conveys the appropriate information. The other exception occurs when hazardous chemicals are transferred from labeled containers into another container - provided that container is intended for immediate use and only to be used by the employee that performs the transfer. This is a typical practice in laboratories.

Without a doubt, the extent of HazCom 2012 goes beyond the generalizations discussed here. For a more in-depth understanding one needs to review the actual regulation; 29 CFR 1910.1200 or 29 CFR 1926.59 – the first published for general industry and the latter for construction. However, both regulations are written exactly the same.

Below are two illustrations: one showing an example of a properly-designed label per HazCom requirements and the other showing the nine approved universally-approved pictograms (including the one used to convey environmental hazards for which falls outside of OSHA’s occupational S&H jurisdiction).



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 **ToxiFlam (Contains: XYZ)** 

Danger! Toxic If Swallowed, Flammable Liquid and Vapor

Do not eat, drink or use tobacco when using this product. Wash hands thoroughly after handling. Keep container tightly closed. Keep away from heat/sparks/open flame. – No smoking. Wear protective gloves and eye/face protection. Ground container and receiving equipment. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Store in cool/well-ventilated place.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician. Rinse mouth.

In case of fire, use water fog, dry chemical, CO₂, or “alcohol” foam.

See Material Safety Data Sheet for further details regarding safe use of this product

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GHS01 Explosive



GHS04 Compressed Gas



GHS07 Harmful



GHS02 Flammable



GHS05 Corrosive



GHS08 Health Hazard



GHS03 Oxidizing



GHS06 Toxic



GHS09 Environmental Hazard

“When the voice and the vision on the inside is more profound, and more clear and loud than all opinions on the outside, you've begun to master your life.” Dr. John: November 20, 1941 – June 6, 2019

