Know Your Pictograms and Hazards Meeting Kit

Chemicals can cause death, cancer, respiratory damage, organ damage, and birth defects, and some may start fires, cause explosions, or damage the environment. Because of their dangerous nature, safety and health laws require suppliers and workplaces to label and attach information about all hazardous products. Labels carry the product name, related hazards, safety measures and more. The absence or damage of labels can lead to injury, illness, and catastrophic events.

The GHS system, part of OSHA's Hazard Communication Standard (HCS), consists of nine symbols, or pictograms, providing recognition of the hazards associated with certain substances. Use of eight of the nine are mandatory in the U.S., the exception being the environmental pictogram.

In addition to pictograms, labels are required to include a signal word ("danger" or "warning"), a brief hazard statement and a precautionary statement outlining ways to prevent exposure.

PICTOGRAMS AND DESCRIPTIONS

Health Hazard: A cancer-causing agent (carcinogen) or substance with respiratory, reproductive or organ toxicity that causes damage over time (a chronic, or long-term, health hazard).

Flame: Flammable materials or substances liable to self ignite when exposed to water or air (pyrophoric), or which emit flammable gas.

Exclamation Mark: An immediate skin, eye or respiratory tract irritant, or narcotic.

Gas Cylinder: Gases stored under pressure, such as ammonia or liquid nitrogen.

Corrosion: Materials causing skin corrosion/burns or eye damage on contact, or that are corrosive to metals.

Exploding Bomb: Explosives, including organic peroxides and highly unstable material at risk of exploding even without exposure to air (self-reactive).

Flame Over Circle: Identifies oxidizers. Oxidizers are chemicals that facilitate burning or make fires burn hotter and longer.

Skull and Crossbones: Substances, such as poisons and highly concentrated acids, which have an immediate and severe toxic effect (acute toxicity).

Environmental Hazard: Chemicals toxic to aquatic wildlife. (Non-Mandatory).

ALL ABOUT PICTOGRAMS

- Labels, including pictograms, are required on all hazardous chemicals (note that chemicals with older labels can still be used).
- Pictograms on chemical labels being shipped by manufacturers, importers and distributors must include a square red frame set at a point (a.k.a. “diamond shape”) with a black symbol on a white background.
- These pictograms are not the same as the diamond-shaped labels that the U.S. Department of Transportation (DOT) requires for vehicles transporting hazardous materials. While a truck may be required to post the DOT label, the containers holding the chemicals (boxes, spray bottles, drums and other individual containers) must have pictograms.
- Employers are responsible for maintaining the labels on the containers. They must be legible and remain on the container. If older labels are on the container, they don’t need to be updated, but if the label is removed or damaged, they must be relabeled . And remember that employees must be trained so they understand all styles of labels you have on site.
- The biggest oversight by organizations using hazardous chemicals is not labeling secondary containers. If you transfer chemicals from a large drum or tank into a smaller container, you must label it with a proper label including a pictogram.

The most common type of label is the **supplier label.** There are **worksite labels** too, which have less, but similar information to the supplier label.

SAFETY IN LABELLING: Using standardized labels with pictograms makes the job easier because you see at a glance what you are dealing with when handling a chemical. Line–training is easier, what to do in case of an accident is clearer and your operations are safer.

WORKER PROTECTION

- Always check for a label before using any product.
- Follow all the instructions on the label and SDS.
- Learn to identify pictograms.
- Attend all training provided by your employer.
- Use all recommended PPE.
- Ask questions when in doubt.
- Avoid unlabeled products and do not use unreadable labels. Report these to your supervisor so a new label can be created and used.

- Ask your supervisor if you are unsure how to use and store a product.
- Never use a product that isn’t labelled, or which has an unreadable label.

FINAL WORD

Hazardous chemicals are present in the air, in consumer products, at the workplace, in water, or in the soil. They can cause several diseases including mental, behavioural and neurological disorders, cataracts, or asthma.

While some exposures can result in immediate injuries (such as chemical burns), in many cases, exposure takes its toll over time. In fact, even relatively modest chemical exposures, if repeated over the course of years and years of employment, can lead to life-changing medical conditions.