

How to Work Safely with

How to Work Safely with - Hazardous Products using the "Corrosion" Pictogram

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What does this pictogram mean?



The symbol within the pictogram shows a container dripping liquid onto a piece of metal and another container dripping liquid onto a hand. This symbol indicates that hazardous products with this pictogram can

- damage or destroy metal,
- cause irreversible damage to the skin (e.g., burns, blisters, scarring), and/or
- produce tissue damage in the eye or vision loss that is irreversible or not fully reversible within 21 days.

Hazardous products with this pictogram can be safely worked with if proper storage and handling practices are followed.

Which hazard classes use the corrosion pictogram?

This pictogram is used by one hazard class in the physical hazards group and two hazard classes in the health hazards group.

The hazard classes and categories that are assigned this pictogram are:

- Corrosive to Metals – Category 1
- Skin Corrosion* – Category 1 (1A, 1B or 1C)
- Serious Eye Damage** – Category 1

*For this hazard class, Category 2 is assigned the exclamation mark.

**For this hazard class, Category 2 (2A) is assigned the exclamation mark, and Category 2B is not assigned a pictogram.

What are the hazards of products that have the corrosion pictogram?

The WHMIS 2015 signal words and hazard statements for the hazard classes and categories assigned this pictogram are:

| Hazard Class and Category | Signal Word | Hazard Statement |
|--|-------------|---|
| Corrosive to Metals – Category 1 | Warning | May be corrosive to metals |
| Skin Corrosion – Category 1 (1A, 1B, 1C) | Danger | Causes severe skin burns and eye damage |
| Serious Eye Damage – Category 1 | Danger | Causes serious eye damage |

Products that are corrosive to metals can cause their containers to become weak, eventually leading to leaking or collapse, spilling the hazardous contents into the workplace. These products can also damage metal equipment and building components which may lead to structural collapse and injuries.

Products that are corrosive to the skin and/or eyes may also be corrosive to the respiratory tract if inhaled. Effects could include irritation and burns to the nose, throat and lungs. In some cases, pulmonary edema, a build-up of fluid in the lungs which can be fatal, could occur. Swallowing a corrosive can cause burns to the mouth, throat and stomach.

Some corrosive products, both liquid and solid, generate large amounts of heat when they are mixed with water. For example, a glass of water thrown into a bucket of concentrated sulfuric acid is converted instantly to steam which will eject the entire contents of the bucket into the air.

Are there other hazards associated products with the corrosion pictogram?

In addition to the specific hazards identified by the corrosion pictogram, it is important to remember that the product may have other hazards, for example:

- other **health hazards** such as acute toxicity, carcinogenicity or reproductive toxicity.
- other **physical hazards** such as flammability or reactivity.

Corrosives are often incompatible with many other chemicals and if they come into contact with each other toxic or explosive reaction products may be formed. The Safety Data Sheet (SDS) for a corrosive product will provide information on which metals or other materials (e.g., plastics or wood) the corrosive product will attack (check Section 10: Stability and Reactivity).

How can products with the corrosion pictogram be handled safely?

- Always check the SDS for information about ALL of the hazards and the necessary precautions for the product being used. Ask questions if you are not sure.
- If it is not possible to eliminate use of the hazardous product in your workplace, evaluate whether it is possible to [substitute](#) it with a less hazardous product.
- Keep only in original packaging.
- Inspect containers for damage or leaks before handling.
- Prevent the release of dust, gas, mist, vapour, or spray into the workplace.
- Do not breathe dusts or mists if inhalable particles may occur during use.
- Use only in well-[ventilated](#) areas. Use the smallest amount necessary.
- Prevent skin contact. Do not get in eyes.
- Wash hands and skin thoroughly after handling.
- Wear respiratory protection, [protective](#) gloves, protective clothing, eye protection and/or face protection appropriate for the job as specified by your employer.
- If personal protective equipment is required, the employer must ensure that workers are thoroughly trained in its selection, fit, use and maintenance. Refer to the SDS for guidance on selection.
- Dispense carefully and keep containers closed when not in use. Use corrosion-resistant equipment such as pumps, scoops or shovels.

- Do not add water to the corrosive product. If it is necessary to mix a corrosive product with water, do so slowly adding the corrosive to cold water, in small amounts, and stir frequently.
- Cautiously move containers. Move large drums using drum cradles. Carboy caddies and safety bottle carriers are available for smaller, common container sizes.
- Follow supplier recommendations for venting drums, if applicable.
- Immediately report leaks, spills or failures of the safety equipment (e.g., ventilation system). In the event of a spill or leak, exit the area immediately.
- Absorb spillage to prevent material damage. Clean up any spills promptly and safely.
- Do not reuse empty containers - hazardous corrosive residue could remain inside.

How can products with the corrosion pictogram be stored safely?

- Inspect containers and storage area regularly for signs of leakage or damage.
- Store in a corrosion-resistant container with a resistant inner liner. Use compatible materials specified by the manufacturer or supplier.
- Store containers at a convenient height for handling, below eye level if possible. High shelving increases the risk of dropping containers and the severity of damage, injury and/or exposure if a fall occurs.
- Keep the amount of product in storage as small as possible.
- Follow supplier recommendations for minimum and maximum storage temperatures, if applicable.
- It is good practice to use a “first in/first out” policy and to mark the date that the container was received and the date it was first opened.
- Contain leaks or spills by storing in trays made from compatible materials.
- Keep away from incompatible materials. Check the SDS for specific information. Post warning signs.
- Use proper corrosive storage cabinets for large quantities of corrosive products. These units have corrosion-resistant interiors and hardware (e.g., door hinges and shelf brackets). Flammable storage cabinets are NOT corrosion-resistant.
- Ensure that appropriate firefighting and spill cleanup equipment is readily available.
- Empty containers may contain hazardous residue. Store separately. Keep closed.
- Comply with all applicable health and safety regulations, fire and building codes.

What should I do in case of an emergency?

- Understand and practice emergency procedures so that you know what to do if it becomes necessary.
- Ensure that eyewash and emergency shower are readily available in the immediate work area and know how to use them. These devices must be tested regularly.
- Have spill control procedures and equipment ready (e.g., absorbent spill control materials, personal protective equipment, etc.).
- If it is not possible to eliminate use of the hazardous product in your workplace, evaluate whether it is possible to substitute it with a less hazardous product.
- Know the appropriate first-aid procedures BEFORE an emergency happens:
 - Immediately call a Poison Centre or doctor. Specific treatment may be necessary.
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse.
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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