



WHMIS

Quick Facts

Workplace Hazardous Materials Information System



Corrosive Materials

Common acids include: hydrochloric acid, nitric acid, and sulfuric acid.

Common bases include: sodium hydroxide (caustic soda) and ammonia.

The hazard symbol shows the two possible hazards of corrosive materials:

- **attack (corrode) metals,**
- **burn (destroy) human tissues**



Hazards of Corrosive Materials

Corrosion of metals – Corrosive materials such as strong acids and strong bases can attack (corrode) some metal containers. The containers become weak and eventually leak or collapse, spilling the contents into the workplace. Corrosives can also damage metal equipment and building components which may lead to injuries and collapse of structures.

“Burning” human tissues – Corrosive materials can “burn” or destroy human tissues (e.g., skin and eyes) on contact and cause permanent scarring, blindness, lung injury, and even death in the case of severe exposures.

Other hazards – Corrosive materials may have additional hazards, such as reactivity, flammability, and toxicity.

Working Safely with Corrosive Materials

- ✓ **UNDERSTAND all of the hazards** associated with the material, and how to use it safely.
- CONSULT** the Material Safety Data Sheet (MSDS) for information about the hazards and necessary precautions for the corrosive material you are using.
- PREVENT** the release of corrosive material (dust, mist, gas, and vapour) into the workplace.
- USE** corrosive materials only in well-ventilated areas.
- USE** the smallest amount of corrosive materials necessary.
- AVOID** all direct contact with corrosive materials.
- WEAR** appropriate personal protective equipment specified by your employer for the job. This equipment may include respiratory protection, goggles, face shield, and chemical protective clothing like an apron and gloves made from corrosion

INSPECT all containers of corrosive material for damage or leaks before handling.

REPORT swollen drums to your supervisor immediately.

USE only the types of containers recommended by the manufacturer or supplier.

TRANSPORT large drums using drum cradles. Carboy caddies and safety bottle carriers are available for other common container sizes.

USE corrosion-resistant equipment such as pumps, scoops or shovels to handle corrosive materials.

KNOW where the closest eyewash station and safety shower are located, and how to use them.

FLUSH contaminated eyes or skin with water for at least 20-30 minutes, sometimes longer, in case of accidental contact. Call immediately for emergency medical assistance.

UNDERSTAND and **PRACTICE** emergency procedures so that you know what to do if it becomes necessary.



NEVER HANDLE drums that appear to be swollen. Drums may need to be vented periodically by trained personnel in order to release pressure buildup. The MSDS will indicate if, and how often, this procedure is required.

DO NOT ADD water to corrosive materials, because this can cause a violent reaction. If it is absolutely necessary to mix a corrosive with water, do so by slowly adding the corrosive to cold water, in small amounts, and stir frequently.

NEVER RETURN unused material to the original container. It may contain traces of contamination and could cause a chemical reaction to occur, possibly leading to container rupture.

DO NOT REUSE empty containers – a hazardous corrosive residue could remain inside.

***In the event of an emergency...
Warn people in the area and move to a safe location to call for emergency help.***

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For additional information and resources visit www.whmis.gc.ca and/or www.ccohs.ca