










Chemical safety symbols

Containers of hazardous chemicals must be labelled according to the 'globally harmonized system' (GHS). The diamond-shaped symbol will be accompanied by:

- a signal word (DANGER, WARNING or nothing),
- up to 6 hazard statements (H-statements, explaining the nature of the hazard) and
- a number of precautionary statements (giving advice on transferring/dispensing the chemical).

Symbol	Official name	Meaning	Some examples you might find in school
	GHS01	EXPLOSIVE	Tollen's Reagent (ammoniacal silver nitrate) if allowed to stand.
	GHS02	FLAMMABLE	Zinc and aluminium dust, hydrogen, ethanol, methanol, propanone, sodium.
	GHS03	OXIDISING	Potassium manganate(VII) solid, ammonium nitrate solid, oxygen gas, nitrogen monoxide, nitrogen dioxide, chlorine.
	GHS04	GAS UNDER PRESSURE	Hydrogen, oxygen.
	GHS05	CORROSIVE	Concentrated acids, some dilute acids (depending on concentration), concentrated alkalis, some dilute alkalis (depending on the concentration), sulfur dioxide gas, nitrogen monoxide, nitrogen dioxide, sodium.
	GHS06	(ACUTELY) TOXIC	Solid barium chloride, most mercury compounds, sulfur dioxide gas, nitrogen monoxide, nitrogen dioxide, chlorine, methanol.
	GHS07	MODERATE HAZARD (eg harmful if inhaled or in contact with the skin, causes eye irritation)	Some dilute acids or alkalis (depending on concentration), iodine solid and concentrated solutions, propanone.
	GHS08	HEALTH HAZARD (eg sensitisers, carcinogens)	Most lead compounds and their solutions, most chromates and dichromates, dichloromethane, methanol.
	GHS09	ENVIRONMENTAL HAZARD	Most copper, mercury and lead compounds, and chromates and dichromates.

The chemical hazard symbols below (known as CHIP 4) are no longer used but may still be found on some old containers.

						
CORROSIVE	TOXIC	HARMFUL or IRRITANT	EXPLOSIVE	EXTREMELY or HIGHLY FLAMMABLE	OXIDISING	ENVIRONMENTAL HAZARD

Note: some of these symbols (eg TOXIC) displayed inside a yellow triangle can be found where chemical containers are not involved. See CLEAPSS *Students Safety Sheets 91b*.