

Appendix A — Explanation of Pictograms

Health Hazard



- **Carcinogens** – A chemical substance or mixture that can cause cancer.
- **Respiratory Sensitizer** – A chemical that if inhaled may lead to an allergic-type reaction of the lungs (respiratory system) if inhaled again.
- **Reproductive Toxicity** – Harmful effects to sexual function and fertility in adult males and females, or on development of the offspring.
- **Target Organ Toxicity (Single exposure)** – The significant health effects that can impair the function of a specific target organ (for example, the eyes or the kidneys) caused by a single exposure to a chemical. Toxic effects may be reversible or irreversible, immediate or delayed.
- **Target Organ Toxicity (Repeated exposure)** – The significant health effects that can impair function of a specific target organ (for example, the eyes or the kidneys) caused by repeated exposure to a substance or mixture. Toxic effects may be reversible or irreversible, immediate or delayed.
- **Mutagenicity** – Chemical exposure causing permanent changes in the amount or structure of the genetic material in a cell.
- **Aspiration Toxicity** – The harmful effect of a liquid or solid chemical when it enters the oral or nasal cavity directly by being breathed in or indirectly entering the respiratory system as a result of vomiting.

Flame



- **Flammable Gases** – A gas that forms a flammable mixture with air at ambient temperature and pressure.
- **Flammable Aerosols** – A chemical in a non-refillable container with a gas compressed, liquefied, or dissolved under pressure and fitted with a release device allowing the contents to be ejected as particles in suspension in a gas, or in another form; and meeting flammability test criteria.
- **Self Reactives** – Thermally unstable liquid or solid chemicals likely to undergo decomposition – even without interaction with air. These chemicals that are likely to undergo a stronger exothermic decomposition are classified under explosives.
- **Pyrophoric Liquids** – A liquid chemical that, even in small quantities, is likely to ignite within five minutes after coming into contact with air.
- **Pyrophoric Solids** – A solid chemical that even in small quantities is likely to ignite within five minutes after coming into contact with air.

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- **Self-Heating** – A solid or liquid chemical (other than a pyrophoric liquid or solid) that, without energy supply, is likely to react with air and generate heat. Differs from a pyrophoric liquid or solid because it will ignite only when in large amounts and after long periods of time (hours or days).
- **Emits Flammable Gas** – Solid or liquid chemicals that, when in contact with water, emit flammable gases or that, by interaction with water, are likely to ignite spontaneously or to give off flammable gases in dangerous quantities.
- **Organic Peroxides** – A carbon-containing compound having two oxygen atoms joined together (-O-O-) called a “peroxy” group. Organic peroxides can be severe fire and explosion hazards.

Exclamation Mark

- **Irritant (Skin or Eyes)** – Reversible damage to the skin or eyes following exposure to a chemical substance.
- **Dermal Sensitizer** – An allergic-type reaction of skin tissue after repeated exposure to a chemical substance.
- **Acute Toxicity (Harmful)** – Harmful, health effects that occur soon after a single oral or dermal exposure to a chemical substance; or multiple doses given within 24 hours; or an inhalation exposure of four hours.
- **Narcotic Effects** – Depression of the central nervous system, exhibited as sleepiness, reduced alertness, loss of reflexes, lack of coordination, and dizziness caused by chemical exposure. Can also be shown as severe headache or nausea and can lead to irritability, fatigue, and worsen memory, perception, and reaction time.
- **Respiratory Tract Irritants** – Chemical exposure effects, characterized by localized redness, swelling, and fluid build-up that weakens respiratory function with symptoms such as cough, pain, choking, and difficulty breathing.



Gas Cylinder

- **Gas Under Pressure** – Gases in a container at a pressure of 29 psi (gauge) or more, are liquefied, or are liquefied and refrigerated.



Corrosion

- **Corrosive (destructive) to skin or eyes** – Irreversible damage to the skin or eyes, including visible, localized death (necrosis) of skin tissue, burns, or serious eye damage following exposure to a chemical substance.
- **Corrosives** – A chemical that will by chemical action materially damage or destroy metals.



Exploding Bomb



- **Explosives** – A solid or liquid chemical that is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic chemicals are included even when they do not evolve gases.
- **Self Reactives** – Thermally unstable liquid or solid chemicals likely to undergo a strongly exothermic decomposition even without participation of oxygen (air). This definition excludes chemicals classified under this section as explosives, organic peroxides, oxidizing liquids, or oxidizing solids.
- **Organic Peroxides** – Any organic (carbon-containing) compound having two oxygen atoms joined together (-O-O-) called a “peroxy” group, where one or both of the hydrogen atoms have been replaced by organic radicals (with an unpaired electron). Organic peroxides are thermally unstable chemicals, which may undergo exothermic self-accelerating decomposition. In addition, they are likely to have one or more of the following properties:
 - ✓ Likely to explode
 - ✓ Burn intensely
 - ✓ Be sensitive to impact or friction
 - ✓ React dangerously with other substances

Flame Over Circle



- **Oxidizer** – A substance that readily yields oxygen to cause or intensify the combustion of organic material. Includes gases, liquids, and solids.

Skull and Crossbones



- **Acute Toxicity (Severe or Fatal)** – Severe, harmful health effects (that may include death) occurring soon after a single oral, dermal, or inhalation exposure to a chemical substance, or multiple exposures within a 24-hour period.