Health and Physical Hazard Classes

Health hazard means a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard.

Health Hazard Class	Applicable Definition(s)	Pictogram(s)	Category Range
Acute toxicity	***Acute toxicity*** refers to those adverse effects occurring following oral or dermal administration of a single dose of a substance, multiple doses given within 24 hours, or an inhalation exposure of 4 hours.		1, 2, 3
			4
Aspiration hazard	***Aspiration*** means the entry of a liquid or solid chemical directly through the oral or nasal cavity, or indirectly from vomiting, into the trachea and lower respiratory system.		1
Carcinogenicity	***Carcinogen*** means a substance or a mixture of substances that induce cancer or increase its incidence.		1A, 1B, 2
Eye damage/ irritation	***Serious eye damage*** is the production of tissue damage in the eye, or serious physical decay of vision, following application of a test substance to the anterior surface of the eye, that is not fully reversible within 21 days of application.		1
	Eye irritation is the production of changes in the eye following the application of test substance to the anterior surface of the eye that are fully reversible within 21 days of application.		2A
		No pictogram	2B
Germ cell mutagenicity	***Mutation*** is defined as a permanent change in the amount or structure of the genetic material in a cell.		1A, 1B, 2
Reproductive toxicity	***Reproductive toxicity*** includes adverse effects on sexual function and fertility in adult males and/or females, as well as adverse effects on development of the offspring.		1A, 1B, 2
Respiratory sensitization	***Respiratory sensitizer*** means a chemical that will lead to hypersensitivity of the airways following inhalation of the chemical.		1A, 1B

Health Hazard Class	Applicable Definition(s)	Pictogram(s)	Category Range
Skin corrosion/ irritation	***Skin corrosion*** is the production of irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following the application of a test substance for up to 4 hours.		1A, 1B, 1C
	Skin irritation is the production of reversible damage to the skin following the application of a test substance for up to 4 hours.		2
Skin sensitization	***Skin sensitizer*** means a chemical that will lead to an allergic response following skin contact.		1A, 1B
Specific target organ toxicity- single exposure (STOT-SE)	***Specific target organ toxicity- single exposure (STOT-SE)*** means specific, nonlethal target organ toxicity arising from a single exposure to a chemical.		1, 2
			3
Specific target organ toxicity- repeated exposure (STOT-RE)	***Specific target organ toxicity- repeated exposure (STOT-RE)*** means specific target organ toxicity arising from repeated exposure to a substance or mixture.		1, 2

Table derived from OSHA 1910.1200 App A and OSHA 1910.1200 App C.

Physical hazard means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas.

Physical Hazard Class	Physical Hazard Definition	Pictogram(s)	Category Range
Chemicals that, in contact with water, emit flammable gases	***Chemicals that, in contact with water, emit flammable gases*** are solid or liquid chemicals that, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.		1, 2, 3
Corrosive to metals	A chemical that is ***corrosive to metals*** means a chemical which by chemical action will materially damage, or even destroy, metals.		1
Explosives	***Explosive chemicals*** are solid or liquid chemicals that are capable of self-reaction to produce gas at such a temperature, pressure and speed as to cause damage to the surroundings.		Unstable explosive, 1.1, 1.2, 1.3, 1.4
		No pictogram	1.5, 1.6
Flammable aerosols	***Aerosol*** means any non-refillable receptacle containing 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 as a foam, paste, powder, liquid or gas.		1, 2
Flammable gases	***Flammable gas*** means a gas having a flammable range with air at 20°C (68°F) and a standard pressure of 101.3 kPa (14.7 psi).		1
		No pictogram	2
Flammable liquids	***Flammable liquid*** means a liquid having a flash point of not more than 93°C (199.4°F).		1, 2, 3
		No pictogram	4
Flammable solids	***Flammable solid*** means a solid that is a readily combustible solid, or that may cause or contribute to fire through friction.		1, 2
Gases under pressure	***Gases under pressure*** are gases that are contained in a receptacle at a pressure of 200 kPa (29 psi) (gauge) or more, or that are liquefied or liquefied and refrigerated.		Compressed gas, liquefied gas, dissolved gas, refrigerated liquefied gas

Physical Hazard Class	Physical Hazard Definition	Pictogram(s)	Category Range
Organic peroxides	***Organic peroxide*** means a liquid or solid organic chemical that contains the bivalent -O-O- structure and as such is considered a derivative of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals.		A
			B
			C, D, E, F
		No pictogram	G
Oxidizing gases	***Oxidizing gas*** means any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.		1
Oxidizing liquids	***Oxidizing liquid*** means a liquid that, while in itself is not necessarily combustible, may cause or contribute to the combustion of other material, generally by yielding oxygen.		1, 2, 3
Oxidizing solids	***Oxidizing solid*** means a solid that, while in itself is not necessarily combustible, may cause or contribute to the combustion of other material, generally by yielding oxygen.		1 ,2, 3
Pyrophoric liquids	***Pyrophoric liquid*** means a liquid that, even in small quantities, is liable to ignite within five minutes after coming into contact with air.		1
Pyrophoric solids	***Pyrophoric solid*** means a solid that, even in small quantities, is liable to ignite within five minutes after coming into contact with air.		1
Self-reactive chemicals	***Self-reactive chemicals*** are thermally unstable liquid or solid chemicals liable to undergo a strongly exothermic decomposition even without participation of oxygen (air).		A
			B
			C, D, E, F
		No pictogram	G
Self-heating chemicals	***Self-heating chemicals*** are a solid or liquid chemicals, other than a pyrophoric liquid or solid, which, by reaction with air and without energy supply, is liable to self-heat; this chemical differs from a pyrophoric liquid or solid in that it will ignite only when in large amounts (kilograms) and after long periods of time (hours or days).		1, 2

Table derived from OSHA 1910.1200 App B and OSHA 1910.1200 App C.