

## Compressed Gas Safety Plan - Appendix A: Definitions

**Asphyxiant gas** - a gas, usually inert, that may cause suffocation by displacing the oxygen in the air necessary to sustain life.

**Chemical** - any substance, or mixture of substances

**Chemical manufacturer** - an employer with a workplace where chemical(s) are produced for use or distribution

**Chemical name** - the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name that will clearly identify the chemical for the purpose of conducting a hazard classification

**Classification** - to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

**Compressed gas** - is a

- a. Gas or mixture of gases in a container, having an absolute pressure exceeding 40 psi at 70°F (21.1°C), or
- b. Gas or mixture of gases in a container, having an absolute pressure exceeding 104 psi at 130°F (54°C) regardless of the pressure at 70°F (21.1°C), or
- c. Liquid having a vapor pressure exceeding 40 psi at 100°F (37.8°C) as determined by ASTM D-323-72.

**Container** - any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

**Corrosive gas** - a gas that can cause visible destruction of, or irreversible alterations in, living tissue by chemical action.

**Distributor** – a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers. Also referred to in the Plan as a vendor.

**Employee** – a worker who may be exposed to hazardous chemicals under normal operation conditions or in foreseeable emergencies.

**Exposure or exposed** – when an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

**Emergency** - any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace

**Flammable Gas** - a gas that can ignite in air at ambient temperature and pressure

**Globally Harmonized System (GHS)** - the international standard adopted by OSHA which includes standardized hazard testing criteria, universal warning pictograms, and harmonized safety data sheets.

**Hazard category** - the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally

**Hazard class** - the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

**Hazard not otherwise classified** - an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes as stated by OSHA.

**Hazard statement** - a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

**Hazardous chemical** - any chemical, which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

**Hazardous gas** - a gas that is included in one or more of the following hazard categories: corrosive, flammable, health hazard, oxidizer, pyrophoric, reactive, toxic

**Hazardous Material Information System (HMIS)** - the classification system based on a numerical hazard rating and incorporates a color code system.

**Health hazard** - 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. The criteria for determining whether a chemical is classified as a health hazard are detailed in OAR §1910.1200 Appendix A -- Health Hazard Criteria.

**Inert Gas** - is a gas that is nonflammable, non-corrosive, and doesn't readily react with other elements.

**Label** - an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

**Liquefied Gas** - a gas which can become liquid at normal temperatures when inside a cylinder under pressure. When gas is removed from the cylinder, enough liquid evaporates to replace it, keeping the pressure in the cylinder constant.

**MAPP Gas** – a mixture of propylene with miniscule impurities of propane, used as a safer and easier-to-use substitute for acetylene. Originally, MAPP gas was a trademarked mixture of methylacetylene, propadiene and propane. Production of the trademarked gas has ceased but the name continues to this day to denote the current propylene/propane blend.

**National Fire Protection Association (NFPA)** - the trade association that creates and maintains standards and codes for fire protection and suppression systems.

**Occupational Safety and Health Administration (OSHA)** - the United States agency responsible for standards and regulations for ensuring safe and healthy working conditions.

**Oxidizer gas** - a gas which yields oxygen readily to stimulate combustion of organic matter and will cause many other materials to burn violently.

**Physical hazard** - 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. See OAR §1910.1200 Appendix B - Physical Hazard Criteria.

**Pictogram** - a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under the GHS standard for application to a hazard category. See Appendix C for images and description of GHS pictograms.

**Precautionary statement** - a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

**Pyrophoric gas** - a gas that may spontaneously ignite in air at or below 130°F (54°C).

**Reportable quantity** - the amount (equal to or greater than) at which a chemical substance is required to be reported. For chemicals listed by OSHA as an Extremely Hazardous Substance, this amount is listed in Appendix A and B of 40 CFR 355. For all other chemicals it is 10,000 pounds.

**Safety data sheet (SDS)** - written or printed material concerning a hazardous chemical that is prepared in accordance with OSHA rules that includes 16 major sections.

**Simple asphyxiant** - a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

**Substance** - chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

**Toxic gas** - a gas that is poisonous or capable of causing injury or death, especially by chemical means.

**Use** - to package, handle, react, emit, extract, generate as a byproduct, or transfer.

**Work area** - a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

**Workplace** - an establishment, job site, or project, at one geographical location containing one or more work areas.