

<b>COUNTY OF VENTURA</b>	<b>2012</b> EMPLOYEE HEALTH & SAFETY MANUAL	GENERAL
Originating Agency: GSA	Last Issued    Revised 8/6/2012	Policy No. 1A HAZARD COMMUNICATION PROGRAM
Policy:                    GSA		
Forms :                    N/A		

## 1.0 POLICY

It is policy of the General Services Agency (GSA) to take every reasonable action to protect the health and safety of our employees. These actions are implemented through the Agency's Injury and Illness Prevention Program (IIPP) and other occupational health and safety programs.

The GSA Hazard Communication Program (HCP) addresses an employee health issue that includes protections and safeguards for all employees who may be exposed to potentially hazardous substances. Employees shall be informed about the hazards of those substances and will be trained in the precautions to take to prevent exposure and what to do if they are accidentally exposed. No employee shall engage in or be required to perform any task that is determined to be unsafe or unreasonably hazardous.

The primary objective of this HCP is to establish a program that reduces the risk of occupational exposure to hazardous substances, which also complies with the requirements specified in California Code of Regulations Title 8 §5194, Globally Harmonized System of Classification & Labeling of Chemical (GHS) and the County Administrative Manual.

## 2.0 PURPOSE

Hazardous substances in the workplace in some forms and concentrations, pose potential acute and chronic health hazards to employees who are exposed to them. The purpose of this program is to improve the detection, treatment, and prevention of occupational illness and disease and to support workers' right to know. It is further intended to ensure that employees have the information necessary for them to know when they are working with or may be exposed to hazardous substances. This program is also intended to ensure that managers and supervisors provide their employees with training on how to avoid exposure to hazardous substances and what to do if they are accidentally exposed to such substances.

### **3.0 SCOPE, APPLICATION AND DEFINITIONS**

- 3.1 This program shall apply to all GSA employees that use, handle, or store hazardous substances.
- 3.2 This program applies to any hazardous substance that is known to be present in the workplace in which employees may be exposed under normal conditions of use or in a foreseeable emergency.
- 3.3 This program does not apply to:
  - a. Any hazardous waste regulated by the Solid Waste Disposal Act, amended by the Resource Conservation and Recovery Act of 1976
  - b. Tobacco or tobacco products
  - c. Wood or wood products
  - d. Articles which may have been manufactured using hazardous substances;
  - e. Food, drugs, or cosmetics intended for personal consumption by employees while in the workplace
  - f. Any product sold at retail in the same form, approximate amount, concentration, and manner as it is sold to consumers.
  - g. Pesticides
  - h. Work operations where employees only handle hazardous substances in sealed containers that are not opened under normal conditions of use (warehousing, shipping, receiving, etc.).

### **4.0 RESPONSIBILITIES**

#### 4.1 GSA Safety Administrator

Assist departments in complying with program requirements including labeling, Safety Data Sheet (SDS)/ Material Safety Data Sheets (MSDS), employee information and training, and record keeping. Develop and maintain training aids and assist managers and supervisors in employee training.

#### 4.2 Managers and Supervisors

Identify hazardous substances present in the work area.

- a. Maintain a hazardous substances inventory list readily accessible to department employees.
- b. Maintain a file of SDS (MSDS) in a location readily accessible to department employees.
- c. Conduct a review prior to use of chemicals to determine the appropriate protective control measures.

- d. Follow the "Hierarchy of Controls", to limit employee chemical exposure. Engineering controls, i.e. substitution of less hazardous material, and local ventilations are the method of choice when protecting workers. The last choice is personal protective equipment (PPE).
- e. Conduct a review for appropriate PPE selection. Appropriate sources of information include the SDS, or consultation with chemical vendor or Safety Administrator.
- f. Ensure employees are trained on physical hazards, health hazards, emergency procedures, and safe-handling procedures for hazardous substances including any applicable Proposition 65 warnings.
- g. Ensure employees are trained prior to performing non-routine tasks on the potential hazards associated with the task.
- h. Ensure employees follow established safety procedures.
- i. Maintain a copy of this written program in the workplace.

### 4.3 Employees

Because of the number of potential hazards that may exist or be created in the work environment, employees must first use common sense and good judgment at all times. Each employee assigned to work with a hazardous substance shall read and comply with all hazard communication procedures, whether written or oral, while performing assigned duties. Employees are required to use the appropriate PPE, safe work practices and be knowledgeable in measures to take if a spill or release occurs. When performing a non-routine task involving working with a hazardous substance the employee has the responsibility to ensure that his/her immediate supervisor knows that the non-routine task will be performed.

## 5.0 LIMITING CHEMICAL EXPOSURES – HIERARCHY OF CONTROLS

Three main methods are to be used to control chemical exposure: engineering controls, safe work practices, and personal protective equipment (PPE).

### 5.1 Engineering Controls

Engineering controls are the preferred method of reducing exposure. Engineering controls should be used whenever the chemical hazard information on the chemical label or the safety data sheet (SDS) indicates a need. The use of local ventilation and the selection of alternate less toxic chemicals are examples of engineering controls.

### 5.2 Safe Work Practices

Safe work practices offer a second method to reduce exposure after the use of engineering controls. SDS and chemical labels should be reviewed for specific work practice instructions before using chemicals. Additional safe work practices include

not working alone, washing hands after using chemicals, and reducing the amount of chemicals used.

### 5.3 Personal Protective Equipment (PPE)

PPE should be used in addition to, but not as a substitute, for engineering controls and safe work practices to reduce exposure. PPE may consist of respiratory protection, eye protection, face protection, gloves, hearing protection, and protective clothing. SDS and chemical labels contain specific information on the proper PPE needed. Personnel must wear PPE to help prevent chemical exposures. PPE needed for the performance of a job function will be provided at no cost to the employee.

## 6.0 CHEMICAL PROCUREMENT, DISTRIBUTION, STORAGE AND DISPOSAL

### 6.1 Procurement

- a. Before a substance is used, an SDS / MSDS with information on proper handling, storage, and disposal shall be obtained and made available for those who will be using the substance. No container is to be accepted without an adequate identifying label. Manufacturers' labels are not to be defaced or removed.
- b. Whenever possible, supervisors should consider using alternative chemicals for very hazardous chemicals.
- c. To reduce future wastes, chemicals should be purchased only in quantities necessary.

### 6.2 Distribution

When chemicals are transported by hand or cart, the container should be placed within a second, larger container or bucket.

### 6.3 Storage

- a. Periodic inventories must be conducted. At least annually, a visual inspection for replacement, deterioration, and of container integrity should be performed when inventories are done.
- b. Chemicals must be stored correctly. Consult the SDS and product labels for recommended storage procedures. Manufacturers should be consulted for additional recommended storage recommendations.

### 6.4 Disposal

All hazardous waste generated shall be disposed of in accordance with the County Hazardous Material Abatement Program (HMAP), local, state and federal regulations.

## 7.0 LIST OF HAZARDOUS SUBSTANCES

Each department shall maintain a list of hazardous substances used in the department. This inventory is in the form of an index in the front of the GSA SDS (MSDS) binder. Departments are to review their inventory at least annually to confirm accuracy and to address any out-of-date information. Chemicals in quantities of 55 gallons, 500 pounds, 200 cubic feet or greater shall be indicated on inventory list.

## **8.0 SAFETY DATA SHEETS (SDS's) / (MSDS)**

Each Department shall maintain a copy of the SDS (MSDS) for each hazardous substance used in the work area. Managers and supervisors shall ensure that this information is readily accessible during each work shift to employees when they are in their work area(s). A product will not be used until a SDS is on file.

Each department shall designate a responsible party for replacing old MSDS with new SDS when received from the manufacturer. Employees will be informed and trained on any changes. \*The revised Safety Data Sheet must be received from the distributor by December 1, 2015.

If a SDS / MSDS is not available, a copy can be obtained by contacting the Safety Administrator.

## **9.0 LABELING**

9.1 Each Department shall ensure that each container of hazardous substances in the workplace is labeled, tagged or marked. The following information must be included on the label with additional requirements effective after December 1, 2015:

- a. Identification of the hazardous substance(s) (product identifier)
- b. Signal word (Danger or Warning) / Appropriate hazard warning
- c. Hazard Statements / Required after 12/1/15
- d. Pictograms / Required after 12/1/15
- e. Precautionary statements / Required after 12/1/15
- f. Name and address and phone number of manufacturer

9.1 If the shipping label is not appropriate, the department will notify procurement that the label is not adequate. The department is responsible for identifying an appropriate label if one is not supplied by the manufacturer. A container will not be used until an appropriate label is affixed to the container.

9.2 All secondary containers of hazardous materials, with one exception, shall be labeled using secondary container label requirements:

- a. Identity of the hazardous substance

b. Hazard warning statements, including Proposition 65 warnings if applicable

9.3 Exception: Departments are not required to label portable containers into which hazardous substances are transferred from labeled containers if intended only for immediate use by the employee who performs the transfer.

9.4 Employees shall not remove or deface existing labels on incoming containers of hazardous substances.

9.5 The labeling requirements of this program do not apply to the following substances:

- a. Any pesticide regulated by the Federal Insecticide, Fungicide, and Rodenticide Act;
- b. Any food, food additive, color additive, drug, or cosmetic regulated by the Federal Food, Drug, and Cosmetic Act;
- c. Any distilled spirits, wine, or malt beverage intended for non-industrial use regulated by the Federal Alcohol Administration Act; and
- d. Any consumer product or hazardous substance regulated by the Consumer Product Safety Act.

## **10.0 EMPLOYEE INFORMATION AND TRAINING**

10.1 Managers and supervisors shall ensure employees are provided with information and training on hazardous substances in their work area at the time of their initial assignment, and whenever a new hazard is introduced into their work area.

10.2 Employee training on new or revised SDS/MSDS information must be provided within 30 days of the employer receiving that information.

10.3 When training employees who may be exposed to hazardous substances, managers and supervisors shall ensure that each of the following hazard communication training requirements are covered:

### 10.3.1 Information

a. Employees shall be informed of their right:

- To personally receive information regarding hazardous substances to which they may be exposed.
- To have their physician or collective bargaining agent to receive information regarding hazardous substances to which the employee may be exposed.

- Against dismissal or other discrimination due to the employee's exercise of the rights afforded pursuant to the provisions of the Hazardous Substances Information Act.
- b. Employees shall be informed of any operations in their work area where hazardous substances are present.
- c. Employees and designated representatives shall be informed of the location and availability of the GSA written Hazardous Communication Program and (Material) Safety Data Sheets (SDS's).

### 10.3.2 Training

- a. Employees shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous substance in the work area (such as monitoring conducted, visual appearance or odor of hazardous substances when being released, etc.).
- b. Employees shall be trained in the physical and health hazards of substances in the work area, and the measures they can take to protect themselves from these hazards, including specific procedures GSA has implemented to protect employees from exposure to hazardous substances, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
- c. Employees shall be trained in the details of the Hazard Communication Program developed by GSA, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

## 11.0 TRADE SECRETS

Under certain circumstances, the manufacturer may withhold the specific chemical identity, including the chemical name and other specific identification of a hazardous substance, from the SDS. However, when a treating physician determines that a medical emergency exists and the chemical identity is required for first-aid treatment, the manufacturer must disclose the trade secret information to the physician.

## 12.0 INFORMING CONTRACTORS

- 12.1 Each contractor bringing chemicals on site must provide GSA with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals.
- 12.2 Managers and supervisors are responsible for informing contractors and sub-contractors of the hazardous substances that employees may be exposed to while performing their work. This information shall be provided to the contractor during the pre-construction meeting.

12.3 Responsible Party (i.e. Landlords, Property Management Company, etc.) are also responsible for obtaining copies of SDS's for any hazardous substance that the contractor is bringing into the workplace.

### **13.0 RECORDS**


13.1 Chemical inventories and SDSs must be maintained by the department and kept in a location accessible in an emergency. A copy of the inventory shall be forwarded to Safety Administrator annually.

13.2 Injuries or chemical exposures will be documented on Employer's Report of Occupational Injury or Illness RM 75 form; a copy is to be retained by the supervisor.

13.3 Departments will keep records of site specific training provided to their employees.












A sample revised HCS label, identifying the required label elements

<h1>GHS SAMPLE LABEL</h1>	
<p><b>PRODUCT IDENTIFIER</b>  <b>CODE</b> _____  <b>Product Name</b> _____</p> <p><b>SUPPLIER IDENTIFICATION</b>  <b>Company Name</b> _____                      Street Address _____                      City _____ State _____                      Postal Code _____ Country _____                      Emergency Phone Number _____</p> <p><b>PRECAUTIONARY STATEMENTS</b>                      Keep container tightly closed.                      Store in cool, well ventilated place that is locked.                      Keep away from heat/sparks/open flame.                      No smoking.                      Only use non-sparking tools.                      Use explosion-proof electrical equipment.                      Take precautionary measure against static discharge.                      Ground and bond container and receiving equipment.                      Do not breathe vapors.                      Wear Protective gloves.                      Wash hands thoroughly after handling.                      Dispose of in accordance with local, regional, national, international regulations as specified.  <b>In Case of Fire:</b> use dry chemical (BC) or Carbon dioxide (CO<sub>2</sub>) fire extinguisher to extinguish.  <b>First Aid</b>                      If exposed call Poison Center.                      If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.</p>	<p><b>HAZARD PICTOGRAM</b></p> <div style="text-align: center;">  </div> <p><b>SIGNAL WORD</b></p> <p><b>Danger</b></p> <p><b>HAZARD STATEMENT</b></p> <p>Highly flammable liquid and vapor.                      May cause liver and kidney damage.</p> <p><b>SUPPLEMENTAL INFORMATION</b></p> <p><b>Directions for use</b></p> <p>Fill weight: _____ Lot Number _____</p> <p>Gross weight: _____ Fill Date: _____</p> <p>Expiration Date: _____</p>

Updated requirements for labeling for hazardous chemicals under the hazard Communication Standard (HCS) required pictograms, a signal word, hazard and precautionary statements, the product identifier, and supplier identifications. Distributors must comply with revised labeling requirements by December 1, 2015.

## HCS Pictograms and Hazards

<p><b>Health Hazard</b></p>  <ul style="list-style-type: none"> <li>▪ Carcinogen</li> <li>▪ Mutagenicity</li> <li>▪ Reproductive Toxicity</li> <li>▪ Respiratory Sensitizer</li> <li>▪ Target Organ Toxicity</li> <li>▪ Aspiration Toxicity</li> </ul>	<p><b>Flame</b></p>  <ul style="list-style-type: none"> <li>▪ Flammables</li> <li>▪ Pyrophorics</li> <li>▪ Self-Heating</li> <li>▪ Emits Flammable Gas</li> <li>▪ Self-Reactives</li> <li>▪ Organic Peroxides</li> </ul>	<p><b>Exclamation Mark</b></p>  <ul style="list-style-type: none"> <li>▪ Irritant (skin and eye)</li> <li>▪ Skin Sensitizer</li> <li>▪ Acute Toxicity</li> <li>▪ Narcotic Effects</li> <li>▪ Respiratory Tract Irritant</li> <li>▪ Hazardous to Ozone Layer (Non-Mandatory)</li> </ul>
<p><b>Gas Cylinder</b></p>  <p>Gases Under Pressure</p>	<p><b>Corrosion</b></p>  <ul style="list-style-type: none"> <li>▪ Skin Corrosion/Burns</li> <li>▪ Eye Damage</li> <li>▪ Corrosive to Metals</li> </ul>	<p><b>Exploding Bomb</b></p>  <ul style="list-style-type: none"> <li>▪ Explosives</li> <li>▪ Self-Reactives</li> <li>▪ Organic Peroxides</li> </ul>
<p><b>Flame Over Circle</b></p>  <ul style="list-style-type: none"> <li>▪ Oxidizers</li> </ul>	<p><b>Environment</b> (Non-Mandatory)</p>  <ul style="list-style-type: none"> <li>▪ Aquatic Toxicity</li> </ul>	<p><b>Skull and Crossbones</b></p>  <ul style="list-style-type: none"> <li>▪ Acute Toxicity (fatal or toxic)</li> </ul>

### Pictograms

A pictogram means a graphical composition that includes a symbol plus other graphic elements, such as a border, background pattern or color that is intended to convey specific information. All hazard pictograms used in the GHS should be in the shape of a square set at a point. Pictograms prescribed by the GHS should have a black symbol on a white background with a red frame sufficiently wide to be clearly visible.

## Signal Words

A signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in the GHS are “Danger” and “Warning”.

“**Danger**” is used for the more severe hazard categories

“**Warning**” is used for the less severe.

## Hazard Statements

A hazard statement means a phrase assigned to a hazard class and category that describes the nature of the hazards of a hazardous product including, where appropriate, the degree of hazard.

Example of Hazard Statements for Flammable liquids

**Category 1** “Extremely flammable liquid and vapor”

**Category 2** “Highly flammable liquid and vapor”

**Category 3** “Flammable liquid and vapor”

**Category 4** “Combustible liquid”

## Precautionary Statements

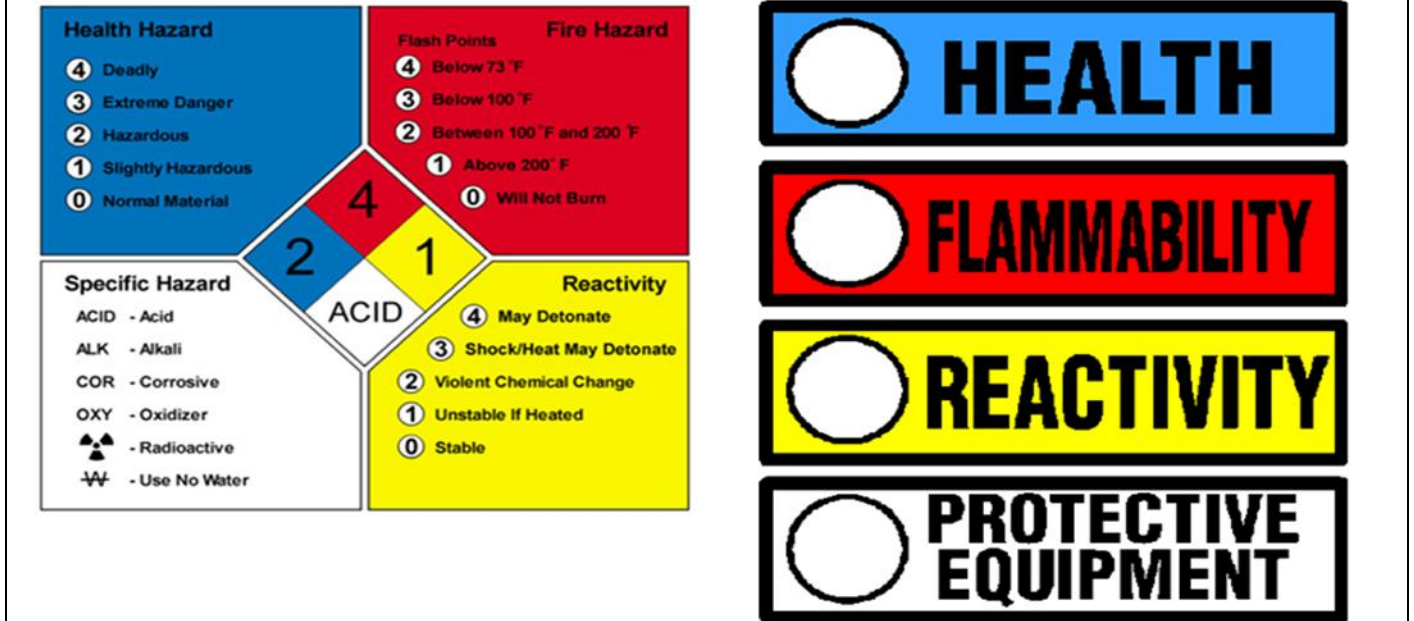
A precautionary statement means a phrase (and/or pictogram) that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product, or improper storage or handling of a hazardous product. The GHS label should include appropriate precautionary information. Annex 3 contains examples of precautionary statements, which can be used.

## Product Identifier

1. A product identifier should be used on a GHS label and it should batch the product identifier used on the SDS. Where a substance or mixture is covered by the UN Model Regulations on the Transport of Dangerous Goods, the UN proper shipping name should also be on the package;
2. The label for a substance should include the chemical identify of the substance.
3. Where a substance or mixture is supplied exclusively for workplace use, the competent authority may choose to give suppliers discretion to include chemical identities on the SDS, in lieu of including them on labels.
4. The competent authority rules for CBI (Confidential Business Information) take priority over the rules for product identification.

## NFPA LABEL

# NFPA Labels



The National Fire Protection Association (NFPA) developed the diamond system for easy and immediate warning on the hazards of material or an area. The diamond is separated into four colored areas to represent three specific types of hazards (health, flammability, and reactivity) and a special category for additional information (water reactive, radioactive etc.) The hazards based on a scale of 0-4

0 = Minimal Hazard

1 = Slight hazard

2 = Moderate hazard

3 = Serious hazard

4 = Extreme hazard

## GHS GLOSSARY

Aspiration: means the entry of a liquid or solid chemical product into the trachea and lower respiratory system directly through the oral or nasal cavity, or indirectly from vomiting;

ASTM: means the "American Society of Testing and Materials";

Boiling Point: means temperature at which a liquid changes to a vapor state at a given pressure. Flammable materials with low boiling points generally present special fire hazards;

Carbon Dioxide: (CO<sub>2</sub>) heavy, colorless gas produced by combustion and decomposition of organic substances and as by-product of chemical processes. Will not burn, and is relatively non-toxic and unreactive. Can cause oxygen deficient environments in large concentration;

Carbon Monoxide: (CO) colorless, odorless, flammable, and very toxic gas produced by the incomplete combustion of carbon compounds and as a by-product of many chemical processes. A chemical asphyxiate, it reduces the blood's ability to carry oxygen;

Carcinogen: means a chemical substance or a mixture of chemical substances which induce cancer or increase its incidence;

CAS: means "Chemical Abstract Service";

Chemical identity: means a name that will uniquely identify a chemical. This can be a name that is in accordance with the nomenclature systems of the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS), or a technical name;

Chronic effect: means an adverse effect with symptoms that develop slowly over a long period of time or that recur frequently;

Compressed gas: means a gas which when packaged under pressure is entirely gaseous at -50 °C (-59°F); including all gases with a critical temperature -50 °C (-58°F);

Contact sensitizer: means a substance that will induce an allergic response following skin contact. The definition for "contact sensitizer" is equivalent to "skin sensitizer";

Corrosive to metal: means a substance or a mixture which by chemical action will materially damage, or even destroy metals

Dermal corrosion: see skin corrosion;

Dermal irritation: see skin irritation;

Dissolved gas: means a gas which when packaged under pressure is dissolved in a liquid phase solvent; to Article 2(7)(c) REACH Regulation shall be regarded as a downstream user;

Dust: means solid particles of a substance or mixture suspended in a gas (usually air);

EC50: means the effective concentration of substance that causes 50% of the maximum response;

Explosive article: means an article containing one or more explosive substances;

Explosive substance: means a solid or liquid substance (or mixture of substances) which is in itself 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 substances are included even when they do not evolve gases;

Eye irritation: means the production of changes in the eye following the application of test substance to the anterior surface of the eye, which are fully reversible within 21 days of application;

Flammable gas: means a gas having a flammable range with air at 20 °C (68°F) and a standard pressure of 101.3 kPa (1atm);

Flammable liquid: means a liquid having a flash point of not more than 93 °C (199°F);

Flammable solid: means a solid which is readily combustible, or may cause or contribute to fire through friction;

Flash point: means the lowest temperature at which a liquid will give off enough flammable vapor to ignite under specified test conditions;

Fume: mean an airborne suspension consisting of minute solid particles arising from the heating of a solid. This heating is often accompanied by a chemical reaction where the particles react with oxygen to form an oxide.

Gas: means a substance that occupies the space of its enclosure. Can settle to the bottom or top of an enclosure when mixed with other materials. Can be changed to its liquid or solid state only by increased pressure and decreased temperature;

Gastrointestinal tract: means stomach and intestine as a functional unit;

GHS: means the "Globally Harmonized System of Classification and Labeling of Chemicals";

Hazard categories: means the division of criteria within each hazard class;

Hazard class: means the nature of the physical, health or environmental hazard;

Hazard statement: means a phrase assigned to a hazard class and category that describes the nature of the hazards of a hazardous substance or mixture, including, where appropriate, the degree of hazard;

IARC: means the "International Agency for the Research on Cancer";

Immediately dangerous to life and health: (IDLH) means maximum concentration form which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects;

Initial boiling point: means the temperature of a liquid at which its vapor pressure is equal to the standard pressure (101.3 kPa or 1atm), i.e. the first gas bubble appears;

Label: means an appropriate group of written, printed or graphic information elements concerning a hazardous product, selected as relevant to the target sector (s), that is affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product;

Label element: means one type of information that has been harmonized for use in a label, e.g. pictogram, signal word;

LC50 (50% lethal concentration): means the concentration of a chemical in air or of a chemical in water which causes the death of 50% (one half) of a group of test animals;

LD50: means the amount of a chemical, given all at once, which causes the death of 50% (one half) of a group of test animals;

Liquefied gas: means a gas which when packaged under pressure, is partially liquid at temperatures above -50 °C (-58°F). A distinction is made between: (i) High pressure liquefied gas: a gas with a critical temperature between -50 °C and +65 °C (154°F); and (ii) Low pressure liquefied gas: a gas with a critical temperature above +65 °C;

Mist: means liquid droplets of a substance or mixture suspended in a gas (usually air);

Mixture: means a mixture or solution of two or more substances which do not react  
Note: Mixture and preparation are synonymous

Local ventilation: means drawing off and replacement of contaminated air directly from its source

Mutagen: means an agent giving rise to an increased occurrence of mutations in populations of cells and /or organisms;

Mutation: means a permanent change in the amount or structure of the genetic material in a cell;

NOEC: means the "no observed effect concentration";

Neutralize: means to render chemically harmless; to return the pH to the neutral level of 7;

Nuisance particulates: means dusts that do not produce significant organic disease or toxic effect from "reasonable" concentration and exposures;

Organic peroxide: means a liquid or solid organic substance which contains the bivalent -O-O-structure and may be considered a derivative of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals. The term also includes organic peroxide formulations (mixtures);

Oxidizing gas: means any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does;

Oxidizing liquid: means a liquid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material;

Oxidizing solid: means a solid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material;

Pictogram: means a graphical composition that includes a symbol plus other graphic elements, such as a border, background pattern or color that is intended to convey specific information;

Precautionary statement: means a phrase and/or pictogram that describes recommended measure(s) to minimize or prevent adverse effects resulting from exposure to a hazardous substance or mixture due to its use;

Product identifier: means the name or number used for a hazardous product on a label or in the SDS. It provides a unique means by which the product user can identify the substance or mixture within the particular use setting e.g. transport, consumer or workplace;

Pulmonary edema: means fluid in the lungs;

Pyrophoric liquid: means a liquid which, even in small quantities, is liable of igniting within five minutes after coming into contact with air;

Pyrophoric solid: means a solid which, even in small quantities, is liable of igniting within five minutes after coming into contact with air;

Pyrotechnic article: means an article containing one or more pyrotechnic substances;

Pyrotechnic substance: means a substance or mixture of substances designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative self-sustaining exothermic chemical reactions;

Readily combustible solid: means powdered, granular, or pasty substance or mixture which is dangerous if it can be easily ignited by brief contact with an ignition source, such as a burning match, and if the flame spreads rapidly;

Refrigerated liquefied gas: means a gas which when packaged is made partially liquid because of its low temperature;

Respiratory sensitizer: means a substance that induces hypersensitivity of the airways following inhalation of the substance;



Routes of entry: mean by which material may gain access to the body (inhalation, ingestion, skin contact);

SDS: means "Safety Data Sheet";

Self-heating substance: means a solid or liquid substance, other than a pyrophoric substance, which, by reaction with air and without energy supply, is liable to self-heat; this substance differs from a pyrophoric substance in that it will ignite only when in large amounts (kilograms) and after long periods of time (hours or days);

Self-reactive substance: means a thermally unstable liquid or solid substance liable to undergo a strongly exothermic decomposition even without participation of oxygen (air). This definition excludes substances or mixtures classified under the GHS as explosive, organic peroxides or as oxidizing;

Serious eye damage: means 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, which is not fully reversible within 21 days of application;

Signal word: means a word that indicates the relative level of severity of hazards to alert the potential reader of the hazard; the following two levels are distinguished:

(a) *Danger* means a signal word indicating the more severe hazard categories;

(b) *Warning* means a signal word indicating the less severe hazard categories.

Skin corrosion: means the production of irreversible damage to the skin following the application of a test substance for up to 4 hours;

Skin irritation: means the production of reversible damage to the skin following the application of a test substance for up to 4 hours;

Skin sensitizer: means a substance that will induce an allergic response following skin contact. The definition for "skin sensitizer" is equivalent to "contact sensitizer";

Solid: means a substance or mixture which does not meet the definitions of liquid or gas;

Solution: means uniformly dispersed mixture;

Solvent: means substance, usually liquid in which other substances are dissolved;

Specific gravity: means weight of material compared to equal volume of water;

Stability: means ability of a material to remain unchanged

Substance: means a chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition;

Substance which, in contact with water, emits flammable gases: means a solid or liquid substance or mixture which, by interaction with water, is liable to become spontaneously flammable or to give off flammable gases in dangerous quantities;

Supplemental label element: means any additional non-harmonized type of information supplied on the container of a hazardous product that is not required or specified under the GHS. In some cases this information may be required by other competent authorities or it may be additional information provided at the discretion of the manufacturer/distributor;

Symbol: means a graphical element intended to succinctly convey information;

Technical name: means a name that is generally used in commerce, regulations and codes to identify a substance or mixture, other than the IUPAC or CAS name, and that is recognized by the scientific community. Examples of technical names include those used for complex mixtures (e.g., petroleum fractions or natural products), pesticides (e.g., ISO or ANSI systems), dyestuffs (Color Index system) and minerals;

Vapor: means the gaseous form of a substance or mixture released from its liquid or solid state;

Ventilation: means circulating fresh air to replace contaminated air;

Viscosity: Means measure of how quickly a substance forms a vapor at ordinary temperatures

Water reactive: means a material that reacts with water to release a gas that is either flammable or presents a health hazard

WHO: means the "World Health Organization