

Republic of the Philippines
DEPARTMENT OF LABOR AND EMPLOYMENT
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DEPARTMENT OF LABOR AND EMPLOYMENT	
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DEPARTMENT ORDER NO. 136-14
Series of 2014

**GUIDELINES FOR THE IMPLEMENTATION OF GLOBALLY HARMONIZED SYSTEM (GHS)
IN CHEMICAL SAFETY PROGRAM IN THE WORKPLACE**

Pursuant to the provisions of Articles 162 and 165, Book IV, Titles I and II of Labor Code of the Philippines and its Implementing Rules and Regulations (OSH Standards) and the Joint DTI-DENR-DA-DOF-DOH-DILG-DOLE-DOTC Administrative Order No. 01, Series of 2009, otherwise known as the *Adoption and Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals*, the following Guidelines is hereby promulgated for the compliance and guidance of all concerned in the workplace.

SECTION 1. Coverage. – This Guidelines shall apply to all workplaces engaged in the manufacture, use, storage of industrial chemicals, in the private sector, including their supply chain.

SECTION 2. Objectives. – The Guidelines aims to protect workers and properties from the hazards of chemicals and to prevent or reduce the incidence of chemically induced accidents, illnesses and injuries and death resulting in the use of chemicals at work.

SECTION 3. Definition of Terms.

- a. *Chemical substance* – refers to any organic or inorganic substance of a particular molecular identity including any element or uncombined chemical and any combination of such substances, or any mixture of two and excluding radioactive materials.
- b. *Chemical Mixture* – means any combination of two or more chemical substances if the combination does not occur in nature and is not, in whole or in part, the result of a chemical reaction, if none of the chemical substances comprising the combination is a new chemical substance and if the combination could have been manufactured for commercial purposes without a chemical reaction at the time the chemical substances comprising the combination were combined. This shall include non-biodegradable mixtures.
- c. *Container* – refers to any bottle, box, drums, cylinder, bag, barrel, vessel, tank, among others that contains hazardous chemical substances.
- d. *Criteria* – means the technical definition for the physical, health and environmental hazards.
- e. *Establishment* – refers to any single proprietorship, partnership, corporation or similar entity operating an economic activity and engaging the services of workers.
- f. *Exposure* – refers to the amount of chemical that is available for absorption into the body through possible routes of entry into the body i.e. inhalation, ingestion and skin absorption.

- g. **GHS** – an acronym for Globally Harmonized System of Classification and Labeling of Chemicals. The GHS is a system for standardizing and harmonizing the classification and labeling of chemicals. It is a logical and comprehensive approach in
- Defining health, physical and environmental hazards of chemicals
 - Creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and
 - Communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS).
- h. **Hazardous materials or substances** – refer to materials or substances in solid, liquid or gaseous forms known to constitute toxic, flammable, explosive, corrosive, oxidizing and radioactive properties.
- i. **Harmonization** – refers to establishing a common and coherent basis for hazards classification and communication of chemicals, and the appropriate elements relevant to means of transport, consumers, workers and environmental protection can be selected.
- j. **Hazards** – refer to the inherent characteristics of chemical substances and mixtures that exist in the workplace and in the environment, regardless of quantity, that are potentially dangerous or which have the capacity to harm, i.e., its capacity to interfere with normal biological processes, and its capacity to burn, explode, corrode, etc.
- k. **Hazard Category** – means the division of criteria within each hazard class e.g. oral acute toxicity includes five hazard categories and flammable liquids includes four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories in general.
- l. **Hazard class** – means the nature of the physical, health or environmental hazard, e.g. flammable solid, carcinogen or oral acute toxicity.
- m. **Hazard Statement** – means a statement 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.
- n. **Industrial chemicals** – mean chemicals in any of the following conditions:
- i. Chemical manipulations are carried out even in small scale;
 - ii. Multiple chemical procedures and/or chemicals are used in the manufacturing or production process;
 - iii. The storage process and handling are also included, or
 - iv. Chemical wastes collection and disposal.
- o. **Label** refers to an appropriate group of written, printed or graphic information elements that are affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product.
- p. **Manufacture** – refers to mechanical or chemical transformation of substances into new products whether work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail.
- q. **Mixtures** – refer to a combination of two or more chemical substances with no chemical reaction taking place.

- r. *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.
- s. *Risk* - is the potential (likelihood) that injury (biological damage) will occur in a given situation that is, the interaction of hazard (nature/incident) and the vulnerability (man/society)
- t. *Safety Data Sheet (SDS) or Material Safety Data Sheet (MSDS)* – is a document that must accompany all chemicals and is supplied by the distributor which provides important physical characteristics, ecological, health, safety and toxicological information on chemical substances or mixture ingredients used at the workplace, transported, and utilized by consumer. *Refer to Section 5-C.*
- u. *Toxic or hazardous substances* – refer to the chemical substances or mixtures that may be harmful to the environment and/or to human health in a short-term and long-term basis if it is inhaled, swallowed, or absorbed through the skin.

SECTION 4. Roles and Responsibilities of Employers, Employees and Safety and Health Committee

A. The employer shall:

1. Ensure the development, implementation and monitoring of the workplace policy and program on safety in the use of chemicals which shall be disseminated to all concerned;
2. Ensure that all chemicals are properly labelled or marked, and that accurate Safety Data Sheets are provided in accordance with the provisions of GHS;
3. Provide the necessary control measures including personal protective equipment. *Refer to Section 6-B;*
4. Ensure that workers are provided with the appropriate information, education and training on the safe use of chemicals and GHS;
5. Establish and implement chemical emergency response plan to mitigate accidents like accidental exposure, inadvertent release, and fire or explosion. The plan shall include, where appropriate, the provision of personal protective equipment, fire-fighting equipment, fire alarms, release containment measures and evacuation of the workplace and the locality; and
6. Ensure that the Safety Officer is in charge of the overall responsibility for chemical safety in the establishment he/she is working in. This includes specific responsibility to perform regular inspections of the premises (labeling, storing, handling and disposal of chemicals), and provide training advice regarding chemical safety rules and procedures.

B. The employees shall:

1. Comply with the policy and programs on safe use of chemicals;
2. Take all reasonable steps to eliminate or minimize risk to themselves and to others from the use of chemicals at work;

3. Observe proper use of all safeguards and safety devices; and
4. Report immediately to their supervisor any situation which they believe could be a potential risk.

C. Safety and Health Committee. – The duties and responsibilities of the Safety and Health Committee as defined in *Rule 1043 of the DOLE-OSHS* are hereby adopted as follows:

1. Plan and develop accident prevention programs for the establishment;
2. Direct the accident efforts of the establishment in accordance with the safety programs, safety performance and government regulations in order to prevent accidents from occurring in the workplace;
3. Conduct safety meetings at least once a month;
4. Review reports of inspection, accident investigations and implementation of program;
5. Submit reports to the manager on its meetings and activities;
6. Provide necessary assistance to the government inspecting authorities in the proper conduct of their activities such as the enforcement of the provisions of OSHS;
7. Initiate and supervise safety training for employees; and
8. Develop and maintain a disaster contingency plan and organizes such emergency service units as may be necessary to handle disaster situations pursuant to the emergency preparedness manual for establishments of the Office of Civil Defense.

SECTION 5. Adherence to Provisions of the Latest Edition of the GHS. – The establishment shall always adopt the latest provisions of GHS.

A. Industrial chemicals shall be classified according to the following GHS Hazard Classifications:

1. **GHS Physical Hazards**
 - a. Explosives
 - b. Flammable Gases
 - c. Flammable Aerosols
 - d. Oxidizing Gases
 - e. Gases Under Pressure
 - f. Flammable Liquids
 - g. Flammable Solids
 - h. Self-Reactive Substances
 - i. Pyrophoric Liquids
 - j. Pyrophoric Solids
 - k. Self-Heating Substances
 - l. Substances Which in Contact with Water Emit Flammable Gases
 - m. Oxidizing Liquids
 - n. Oxidizing Solids

- o. Organic Peroxides
- p. Corrosive to Metal

2. GHS Health Hazards

- a. Acute Toxicity
- b. Skin Corrosion
- c. Skin Irritation
- d. Eye Effects
- e. Sensitization
- f. Germ Cell Mutagenicity
- g. Carcinogenicity
- h. Reproductive Toxicity
- i. Systemic Target Organ Toxicity: Single Exposure & Repeated Exposure
- j. Aspiration Toxicity







3. Environmental Hazards




- a. Hazardous to the Aquatic Environment
- b. Hazardous to the Ozone Layer

B. All industrial chemicals shall be labeled with the following GHS label elements:

1. Product Identifier
2. Supplier Identifier
3. Chemical Identity
4. Pictograms (see Figure 1.1)
5. Signal Words
6. Hazard Statement
7. Precautionary Statement

Figure 1.1

GHS Pictograms and Hazard Classes		
		
<ul style="list-style-type: none"> ▪ Oxidizers 	<ul style="list-style-type: none"> ▪ Flammables ▪ Self Reactives ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Organic Peroxides 	<ul style="list-style-type: none"> ▪ Explosives ▪ Self Reactives ▪ Organic Peroxides
		
<ul style="list-style-type: none"> ▪ Acute toxicity (severe) 	<ul style="list-style-type: none"> ▪ Corrosives ▪ Serious Eye Damage/Eye irritation ▪ Skin Corrosion / Irritation 	<ul style="list-style-type: none"> ▪ Gases Under Pressure

		
<ul style="list-style-type: none"> ▪ Carcinogen ▪ Respiratory Sensitizer ▪ Reproductive Toxicity ▪ Specific Target Organ Toxicity ▪ Mutagenicity ▪ Aspiration Toxicity 	<ul style="list-style-type: none"> ▪ Acute Hazard to the Aquatic Environment 	<ul style="list-style-type: none"> ▪ Irritant ▪ Respiratory Tract Irritation ▪ Skin Sensitizer ▪ Hazard to the Ozone Layer

C. The Safety Data Sheet (SDS) shall be well-communicated and made available to the workers. It shall have 16 sections containing the following minimum information:

1. Identification of the substance or mixture and of the supplier
2. Hazards identification
3. Composition/information on ingredients
4. First aid measures
5. Firefighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information including information on preparation and revision of the SDS

D. Confidential Business Information (CBI) – CBI claims should be limited to the names of chemicals and the concentration in mixtures. The rules of CBI shall take priority for product identification. No disclosure of any information shall be done except for:

1. Instances when the provisions for CBI protection compromise the health and safety of workers; or
2. During emergency situations

For non-emergency situations, the supplier or employer should ensure disclosure of confidential information to a safety or health professional providing medical or other safety and health services to exposed workers or consumer, and to workers or their representatives. Persons requesting the information should provide specific reasons for disclosure, and should agree to use the information only for the purpose of worker or consumer's protection, and maintain its confidentiality.

SECTION 6. Chemical Safety Program Elements. – The Chemical Safety Programs to be initiated by the establishment shall include the following elements:

- a. **Facilities.** – The overall facility shall be maintained in an orderly and safe manner with appropriate control measures in place.
- b. **Control Measures.** – interventions undertaken by the establishment to provide protection to workers and could be any combination of the following:
 1. **Engineering controls**
 - totally enclosed process and handling systems;
 - segregation of the hazardous process from the operators or from other processes;
 - partial enclosure with local exhaust ventilation;
 - efficient and properly designed local exhaust ventilation; or
 - sufficient general ventilation with adequate air changes per hour in the room.
 2. **Administrative Controls**
 - reduction of the number of workers exposed and exclusion of non-essential access;
 - reduction in the period of exposure of workers;
 - regular cleaning of contaminated walls, surfaces, etc.;
 - provision of adequate facilities for washing, changing and storage of clothing, including arrangements for laundering contaminated clothing;
- c. **Workers' Right to Know.** – This shall cover information on the hazards in their workplaces, access to training and education on chemical safety and orientation on safety data sheet of a chemical.

The worker has the right of refusal to work if an imminent danger situation exists in the workplace that may result to illness, injury or death and until the corrective actions to eliminate the danger is taken by the employer.

- d. **Storage Requirements and Inventory**
 1. All toxic substances should be procured with consultation with the safety and health committee. No container shall be accepted without an adequate identifying GHS label and having an SDS supplied with the container.
 2. Each establishment should have adequate, well-ventilated storage space for chemicals and properly segregate chemicals in accordance with its GHS Physical Hazard Criteria and storage requirements as stated in the SDS.
 3. Chemicals classified under any GHS Health Hazards Danger Category (or known to carcinogenic, mutagenic or teratogenic) should be kept under strict control.
 4. Stored chemicals should be examined periodically for replacement, deterioration, and container integrity. Storage temperature, humidity and ventilation requirements as stated in the SDS should be followed.
 5. Quantities of chemicals to be stored shall be kept to the minimum amount.
 6. There should be adequate security and limited access to chemical storage areas.

7. Periodic inventories shall be conducted regularly.
8. Proper labeling in accordance with the GHS must be observed at all times.
- e. Waste Management. – The disposal of all toxic substances shall be in accordance with the Title III on “Hazardous Waste Management” of DENR Administrative Order (DAO) 92-26. *Refer to DAO 92-26.*
- f. Information and Training. – All employees working with industrial chemicals shall attend the Chemical Safety Training including that of GHS, methods of storage, transport and waste disposal of chemicals as well as emergency and first-aid measures. They should be re-trained on the latest revision of the purple book if a new industrial chemical is used in the establishment. It should be a regular and continuing activity.
- g. Personal Protective Equipment. – The establishment shall adhere to the provisions of Rule 1080 of the Occupational Safety and Health Standards (OSHS). *Refer to Rule 1080 of OSHS.*
- h. Work Environmental Monitoring (WEM). – The establishment shall adhere to the provisions of Rule 1070 of the OSHS. *Refer to Rule 1070 of OSHS.*
- i. Occupational Health and Medical Surveillance. – The establishment shall comply with Rule 1060 of the OSHS. *Refer to Rule 1060 of OSHS.*
 - This shall include regular biochemical monitoring for workers exposed to toxic substances classified under toxicity categories I and II of WHO standards.
 - It shall be free of charge for the workers.
 - The employees’ medical record is considered confidential and only upon the expressed approval of the employees that the employer furnish a copy to any third party
- j. Emergency Preparedness and Response. – A written emergency procedure should be posted in the workplace and communicated to all workers in the area. Appropriate and adequate emergency equipment and well-trained emergency response team should be provided.

SECTION 7. Monitoring Procedure. – The Bureau of Working Conditions (BWC), through the DOLE Regional Offices, shall monitor the compliance to this Guidelines, the pertinent provisions of the OSHS and other related laws and policies.

As provided in Rule 1013 of OSH Standards and DOLE Memorandum Circular No. 02, Series of 1998, otherwise known as “Guidelines for Classifying Hazardous and Non-Hazardous Workplaces,” establishments using industrial chemicals are considered hazardous, and as such is priority for inspection.

SECTION 8. Repealing Clause. – All orders and issuances inconsistent with the provisions of this Guidelines are hereby deemed modified or repealed.

SECTION 9. Penalties. – All violations of the provisions of this Guidelines shall be subject to the applicable penalties provided for in the Labor Code, as amended including other related laws.

SECTION 10. Transitory Provisions. – All establishments using industrial chemicals shall be required to comply with all the requirements in this Guidelines within one (1) year upon effectivity.

SECTION. 11. Effectivity. – This Department Order shall take effect within fifteen (15) days after its publication in two (2) newspapers of general circulation.

Manila, Philippines. 28 February 2014.


ROSALINDA DIMAPILIS-BALDOZ
Secretary