

# Implementing the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and available data on substance classification



The GHS classifies chemicals according to the type of hazard and the severity of the effect. GHS contains classification criteria that can be applied to pure substances as well as to mixtures of substances.

## 1 Benefits and costs of implementing GHS

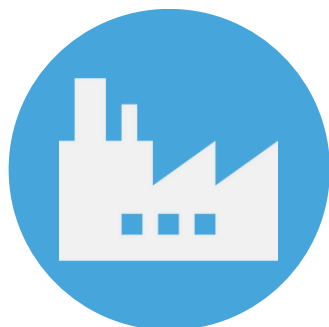
The benefits of implementing GHS have been highlighted by bodies such as the European Chemicals Agency where the executive director in 2022 underscored its importance as a “backbone of chemicals management”. The US Occupational Health and Safety Authority has also stressed the importance and benefits of GHS for the health and safety of workers and the public, as well as governments and companies.

### Advantages of GHS implementation for **governments** include:



- ◆ Improved protection of workers and the public from chemical hazards;
- ◆ Fewer chemical accidents and incidents;
- ◆ Lower health care costs;
- ◆ Avoiding duplication of efforts in creating national systems;
- ◆ Reduction in the costs of enforcement;
- ◆ Improved reputation on chemical issues both domestically and internationally.

### Advantages from GHS implementation for **industry** include:



- ◆ Leading to safer work environments – with fewer accidents and illnesses and reduced associated costs;
- ◆ Improving relations with employees;
- ◆ Increasing efficiency and reduce costs in compliance with hazard communication regulations;
- ◆ Facilitating market growth and trading;
- ◆ Maximising use of expert resources with minimum labour and costs;
- ◆ Improving corporate image and credibility.

Workers and civil society are other stakeholders that benefit from classification and labelling of chemicals according to GHS. It will lead to improved safety for all handlers and users of chemicals as well as an increased awareness of chemical hazards, both in the workplace and domestically.

### Studies on the benefits <sup>1</sup> of the GHS implementation indicate that:

- ◆ The global **costs** associated with exposure to harmful chemicals are great;
- ◆ Thus, the **economic benefits** from preventing such exposure are significant;
- ◆ There is significant evidence that the **benefits of GHS** implementation far outweigh the costs by a factor of 3 or more;
- ◆ And for many countries that have yet to implement GHS the costs of implementation will be even **lower** and the **benefits even more substantial**.

## 2 GHS Implementation Strategy

To facilitate a smooth transition from an existing classification and labelling system to one that implements GHS, the **building block** approach for GHS adoption was introduced. The GHS can be adopted in full, with additions as appropriate not to reduce protection of human health and the environment compared with systems currently in place. GHS can also be adopted in parts in order to minimize changes to existing systems in a sector, country or region. However, the criteria for classification and the communication elements have to be in accordance with the GHS for the hazard classes and categories adopted.

### Implementation of the GHS into national legislation requires a number of considerations, such as:

- ◆ What national legislation on classification and labelling exists;
- ◆ If the legislation shall be applied to all chemicals in all sectors or for some chemicals (such as pesticides) or in a specific sector (such as the workplace);
- ◆ How the “building block” approach should be applied;
- ◆ If additional elements shall be included, for instance hazards not covered by GHS or additional labelling elements brought over from existing legislation;
- ◆ As the GHS is regularly revised, it is important to decide what revision should be used when the legislation is drafted;
- ◆ It is also important to include a mechanism for updating the legislation when the GHS evolves;
- ◆ Some jurisdictions include lists of classified substances, legally binding or as guidance, but it should be noted this is a resource-demanding task and that a lot of information is already available.

<sup>1</sup>See synthesis paper by the International Council of Chemical Associations (ICCA, 2019)



UNITAR has recently published a guidance document to support GHS implementation, which can be found at:

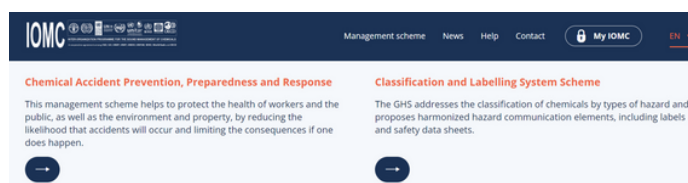
<https://unitar.org/sustainable-development-goals/planet/our-portfolio/globally-harmonized-system-classification-and-labelling-chemicals/global-partnership-implement-ghs>

It showcases actions that have been taken in various countries or by relevant regional and international organizations.

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC) has developed the **IOMC toolbox**, which includes a scheme on the GHS that can assist in implementation.

It can be found at:

<https://iomctoolbox.org/>



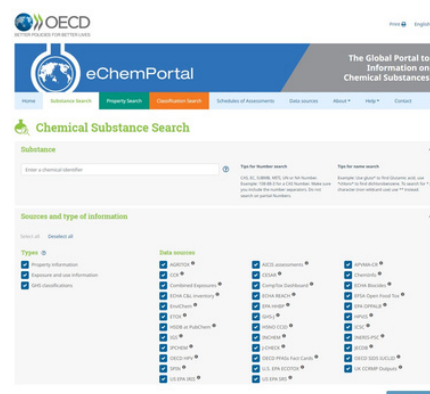
### 3 Available data on substance classification

The **OECD eChemPortal** is one gateway to information on chemical substances.

It can be found at:

<https://www.echemportal.org/echemportal/substance-search>

It allows simultaneous searching of reports and datasets by chemical name and number, by chemical property, and by GHS classification. Direct links to collections of chemical hazard and risk information prepared for government chemical programmes at national, regional and international levels are provided. Classification results according to national/regional hazard classification schemes or to GHS are provided when available. In addition, the eChemPortal provides exposure and use information on chemicals.



#### For more information, please contact UNITAR

The Global Partnership to Implement the GHS | UNITAR

<https://unitar.org/sustainable-development-goals/planet/our-portfolio/globally-harmonized-system-classification-and-labelling-chemicals/global-partnership-implement-ghs>

#### or visit the GHS website

<https://unece.org/about-ghs>

This leaflet is part of a series of leaflets and presentations on the GHS with the following topics:

- 1) What is the GHS?
- 2) Hazard classification
- 3) Hazard communication
- 4) Implementing GHS and available data on substance classification.