

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

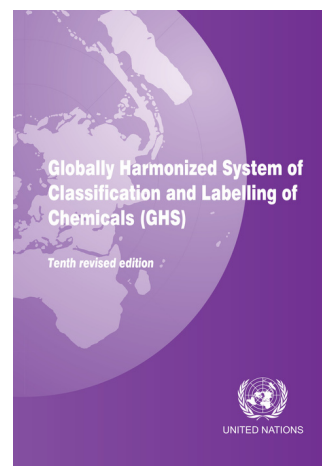


One of the outcomes of the Earth Summit in Rio de Janeiro 1992 was a mandate to develop an international hazard classification and labelling system for chemicals. The work progressed during a ten-year period and was completed in 2001 and the initial version of the GHS was published in 2003. Since then, GHS has been updated every second year and it is available in all six UN languages.

1 Purpose and Benefits

The purpose and benefits of the GHS are to:

- ◆ Enhance the protection of human health and the environment by providing an internationally comprehensible system for hazard communication;
- ◆ Provide a legal framework for countries without an existing system for classification and labelling of chemicals;
- ◆ Reduce the need for testing and evaluation of chemicals;
- ◆ Facilitate international trade in chemicals.



2 Elements of the GHS

The GHS pictograms

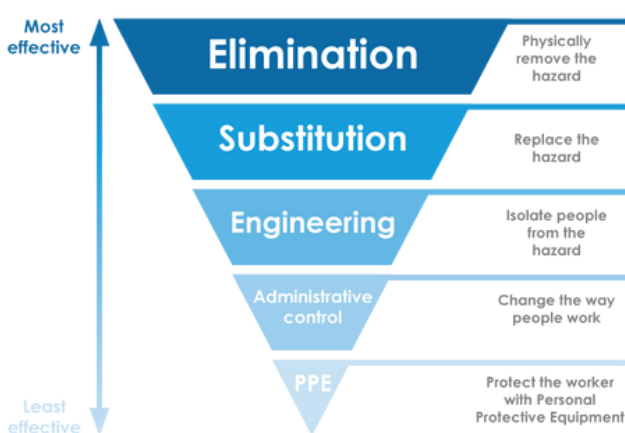


The GHS contains internationally harmonized **criteria for classification** of chemical substances and mixtures by type and severity considering physical, health and environmental hazards. The GHS also proposes harmonized **communication elements**, such as **labels** and **safety data sheets**, to make users aware of the hazards of the chemicals they are exposed to. Furthermore, the GHS provides a basis for harmonization of rules and regulations on chemicals at national, regional, and global level, and are as such an important facilitator for trade.

3 The role of GHS in chemicals management

Chemicals are part of everyday life, used both as single substances but more often as a combination of substances in mixtures. They can also be integral parts of various products, such as electronics, food packaging materials, toys and textiles. While largely beneficial, chemicals may pose a risk to human health and the environment, based on intrinsic hazardous properties in combination with production, use and disposal patterns.

Hierarchy of controls for chemical safety



Chemicals management aims to ensure that no harm occurs due to use of chemicals, as part of the hierarchy of controls. This can be achieved by:

- ◆ using non-hazardous chemicals;
- ◆ substituting hazardous chemicals with less hazardous ones or, if possible, non-chemical alternatives;
- ◆ ensuring that hazardous properties are known and clearly communicated to users;
- ◆ minimising exposure to hazardous chemicals through clear and appropriate use instructions.

Classification of chemical hazards is the basis for legislative and policy action.

For example:

- ◆ The type and severity of the hazard can lead to demands for authorization of use and permits or restrictions for manufacture, transport, handling and storage;
- ◆ The hazard can prompt the prohibition of the chemical in certain categories of products;
- ◆ Information on the hazard is also important for categorization of waste and environmental protection in case of accidents;
- ◆ Knowledge on the hazard is vital for emergency response in case of human exposure and intoxication.



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.