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

Historical background and implementation status

International recognition (1)

Chemicals have the potential for adverse effects to people or the environment

To protect people and the environment, countries and organizations developed laws or regulations that require information to be prepared and transmitted to those using chemicals, through labels or Safety Data Sheets (SDS)

While these existing laws or regulations were similar in many respects, their differences were significant enough to result in different labels or SDS for the same product

International recognition (2)

In 1980-1990, the International Labor Organization (ILO) adopted:

- Convention (C.170) concerning safety in the use of chemicals at work
- Recommendation (R.177) concerning safety in the use of chemicals at work

concerning the harmonization of systems of classification and labelling for the use of hazardous chemicals at work.

Adoption of these instruments requires a country to have a system for hazard classification and labelling/marking in accordance with national or international standards.

International recognition (3)

Moreover, due to:

- the extensive global trade in chemicals; and
- the need to develop national systems to ensure the safe use, transport and disposal of hazardous chemicals,

it was recognized that an internationally harmonized approach to classification and labelling would provide the foundation for such systems.

International recognition (4)

In 1992, the UN Conference on the Environment and Development (UNCED) established the following 6 programme areas to strengthen national and international efforts related to the environmentally sound management of chemicals:

1. Expanding and accelerating international assessment of chemical risks;
2. Harmonization of classification and labelling of chemicals.
3. Information exchange on toxic chemicals and chemical risks;
4. Establishment of risk reduction programmes;
5. Strengthening of national capabilities and capacities for management of chemicals;
6. Prevention of illegal international traffic in toxic and dangerous products.

(Agenda 21, Chapter 19: Programme Areas)

International mandate

Agenda 21, Chapter 19, Programme Area B, paras. 26 and 27:

"26. Globally harmonized hazard classification and labelling systems are not yet available to promote the safe use of chemicals, inter alia, at the workplace or in the home. Classification of chemicals can be made for different purposes and is a particularly important tool in establishing labelling systems. There is a need to develop harmonized hazard classification and labelling systems, building on ongoing work;

27. A globally harmonized hazard classification and compatible labelling system, including material safety data sheets and easily understandable symbols, should be available, if feasible, by the year 2000."

Process of harmonization (1)

The development of a harmonized system of classification and labelling of chemicals started with the examination of existing systems, recommendations and/or legislation:

- in countries;
- in international/intergovernmental organizations, e.g:
  - OECD Chemicals Programme;
  - ILO Chemical Safety Tools;
  - UN Recommendations for transport of dangerous goods;
  - FAO Recommendation on Pesticides;
  - European Union directives for classification and labelling of substances and preparations
  - ...

Process of harmonization (2)

The analysis showed that:

- Scope of countries/organizations was very broad.
- Extensive expertise was needed;

Therefore, need to decide:

- what systems would be considered "major" (and used as the primary basis for the harmonization process); and
- how to divide the work to get the best expertise for different aspects?

Process of harmonization (3)

"Major" systems identified:

- USA requirements for workplace, consumers and pesticides;
- Canada requirements for the workplace; consumers and pesticides;
- European Union directives for classification an labelling of substances and preparations;
- United Nations Recommendations on the Transport of Dangerous Goods.

While not considered "major", requirements of other systems were also examined as appropriate, and taken into account as proposals were developed, e.g:

- a compromise cut-off on acute toxicity was found in the Japanese requirements

Process of harmonization (4)

Technical work was assigned to three focal points:

- UN Sub-Committee of Experts on the Transport of Dangerous Goods (UNSCETDG): for physical hazards;
- OECD: for health and environmental hazards

  (Designated as a focal point on the basis of its work in the area of testing guidelines and other chemical issues. This work has been later expanded to include classification criteria for mixtures and preparations)
- ILO: for hazard communication

  (Hazard communication issues include label elements and information on Safety Data Sheets (SDS))

Process of harmonization (5)

Compilation of the technical work into the new system (GHS) was assigned to the Coordinating Group for Harmonization of Chemical Classification Systems (CG/HCCS), under the umbrella of the Interorganization Programme for the Sound Management of Chemicals (IOMC).

Once completed in 2001, the work was transmitted by the IOMC to the new United Nations Economic and Social Council's Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (UNSCEGHS).

This Sub-committee was established by the Council's resolution 1999/65 of 26 October 1999 as a subsidiary body of the former UNCETDG, which was reconfigured and renamed at the same occasion "Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals" (UNCETDG/GHS).

The GHS Sub-Committee Functions

(a) Act as custodian of the GHS, managing and directing the harmonization process

(b) keep the GHS system up-to-date, ensure its continued relevance and practical utility, and determine the need for and timing of the updating of technical criteria, working with existing bodies as appropriate

(c) Promote its understanding and use and encourage feedback

(d) Make the GHS available for worldwide use and application

(e) Make guidance available on its application, interpretation and use of technical criteria to support consistency of application; and

(f) Prepare work programmes and submit recommendations to the committee

The GHS document

The first edition of the GHS was adopted in December 2002 and published in 2003. Since then, it has been updated every two years:

- First revised edition (GHS, Rev.1):
  - Adopted in December 2004 and published in 2005
- Second revised edition (GHS, Rev.2):
  - adopted in December 2006 and published in 2007
- Third revised edition (GHS Rev.3):
  - adopted in December 2008 and published in 2009
- Fourth revised edition (GHS Rev.4):
  - adopted in December 2010 and published in 2011
- Fifth revised edition (GHS Rev.5):
  - Adopted in December 2012 and published in 2013
- Sixth revised edition (GHS Rev.6):
  - Adopted in December 2014 and published in 2015
- Seventh revised edition (GHS Rev.7):
  - Adopted in December 2016 and published in 2017

GHS implementation

The World Summit on Sustainable Development, in paragraph 23 (c) of its Plan of implementation encouraged countries:

"to implement the new globally harmonized system for the classification and labelling of chemicals as soon as possible with a view to having the system fully operational by 2008."

Information about the status of implementation of the GHS is available at:

http://www.unece.org/trans/danger/publi/ghs/implementation_e.html

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End of historical background and implementation status