

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

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Historical background and  
implementation status





# *Background*

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 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

 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

# *Background*

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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](#)

on 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/marketing in accordance with national or international standards

# *Background*

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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*

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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."*



# *Harmonization process (1)*

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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 and 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
- ...

# *Harmonization process (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” (used as the primary basis for the harmonization process); and
- how to divide the work to get the best expertise for different aspects

# *Harmonization process (3)*

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“Major” systems identified:

- USA requirements for workplace, consumers and pesticides;
- Canada requirements for the workplace; consumers and pesticides;
- European Union directives for classification and 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)



# *Harmonization process (4)*

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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 based on its work on testing guidelines and other chemical issues*)
- ILO: for hazard communication (label elements and Safety Data Sheets (SDS))

# *Harmonization process (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*

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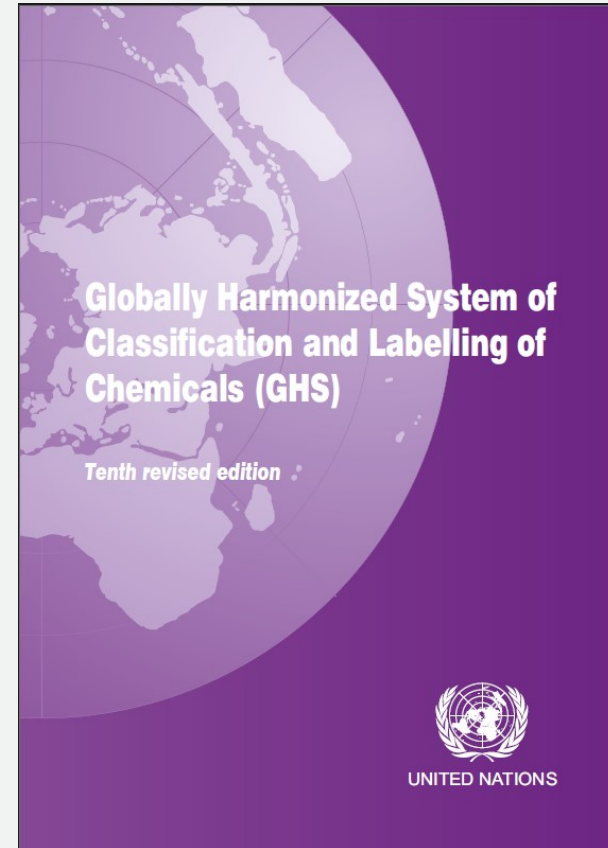
- (a) Act as custodian of the GHS, managing and directing the harmonization process
- (b) keep the GHS system up-to-date, ensure its continued relevance and practical utility, and determine the need for and timing of the updating of technical criteria, working with existing bodies as appropriate
- (c) 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 revised and updated every two years:

- GHS Rev.1: Adopted in December 2004 and published in 2005
- GHS Rev.2: Adopted in December 2006 and published in 2007
- GHS Rev.3: Adopted in December 2008 and published in 2009
- GHS Rev.4: Adopted in December 2010 and published in 2011
- GHS Rev.5: Adopted in December 2012 and published in 2013
- GHS Rev.6: Adopted in December 2014 and published in 2015
- GHS Rev.7: Adopted in December 2016 and published in 2017
- GHS Rev.8: Adopted in December 2018 and published in 2019
- GHS Rev.9: Adopted in December 2020 and published in 2021
- GHS Rev.10: Adopted in December 2022 and published in 2023

All editions are available at: <https://unece.org/transport/dangerous-goods/ghs-rev10-2023>




# *GHS implementation status and guidance*

- [Implementation through international legal instruments, recommendations, codes and guidelines](#)
- [Implementation at regional/national level](#)
- [Chemical's assessment in accordance with the GHS](#)
- [Capacity-building, tools and guidance](#)
- [Information submission form](#)

All available at: <https://unece.org/ghs-implementation-0>

The screenshot shows the UNECE website page for GHS implementation. The header includes the UNECE logo, 'Sustainable Development Goals', and a search bar. The navigation menu includes 'About UNECE', 'Our work', 'Themes', 'SDGs', 'Open UNECE', 'Events', 'Publications', and 'Media'. The main content area is titled 'UNECE TRANSPORT DANGEROUS GOODS'. A left-hand sidebar menu lists various topics, with 'GHS implementation and guidance' highlighted. The main content area is titled 'GHS implementation' and includes an 'Introduction' section. The introduction text states: 'Since its adoption in 2002, the GHS has been identified as one of the main tools to achieve sound management of chemicals. In paragraph 23 (c) of the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg, South Africa, 2002), countries were encouraged to implement the GHS as soon as possible with a view to having the system fully operational by 2008. In 2015, several high-level decisions relating to the sound management of chemicals were adopted at international level, for instance: Agenda 2030 for Sustainable Development and its target (12.4) on chemicals management and the Strategic Approach to International Chemicals Management (SAICM) Overall Orientation and Guidance. GHS implementation contributes to the achievement of target 12.4 of Agenda 2030. It is explicitly mentioned in relation to the original objectives 1 to 4 of the SAICM Global Plan of Action (risk reduction; strengthening knowledge and information sharing; Governance: strengthening of institutions, law and policy; capacity building) and their related activities (22, 99-101, 168, 248-250). In order to monitor the status of implementation of the GHS, the secretariat collects information publicly available from various sources in relation with the implementation of the GHS. The information is made available on this website in good faith and derived from sources believed to be reliable and accurate at the time of publication. These include reports from members of the GHS Sub-Committee, reports submitted to or issued by other United Nations organs, programs or specialized agencies (UNECE, UNITAR, IMO, ICAO, UNEP, WHO, ILO) or other intergovernmental organizations (European Commission, APEC) and non-governmental organizations (NGO's), as well as reports on various workshops, seminars, conferences and other events organized by third-parties on GHS related issues. Given that implementation of the GHS is a dynamic process, this information will be reviewed and completed based on any new information made available to the secretariat. The information has been divided in the following blocks, also accessible from the left-hand side menu:'. A bulleted list follows: 'Implementation through international legal instruments, recommendations, codes and guidelines', 'Implementation at regional/national level', 'Chemical's assessment in accordance with the GHS', 'Capacity-building, tools and guidance', and 'Information submission form'. The sidebar menu includes: Transport, Dangerous Goods, Competent Authorities, ECOSOC bodies, UNECE bodies, Meetings & Documents, Meeting Documents before 2021 (ARCHIVE), Legal Instruments and Recommendations, ADR, ADN, UN Model Regulations, UN Manual of Tests and Criteria, CRTD, GHS, About the GHS, GHS pictograms, GHS implementation and guidance (highlighted), At international level, At regional/country level, Capacity building, tools and guidance, Chemical's assessment, GHS implementation information submission form, GHS official text and corrigenda, Publications, and Contact us.



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End of historical background and  
implementation status

