The Globally Harmonised System (GHS) for Hazard Classification and Labelling

Development of a Worldwide System for Hazard Communication

Jennifer Silk TIEMS (June 2001)

What is the GHS?

- A common and coherent approach to defining and classifying hazards, and communicating information on labels and safety data sheets.
- Target audiences include workers, consumers, transport workers, and emergency responders.
- Provides the underlying infrastructure for establishment of national, comprehensive chemical safety programs.

Why is the GHS needed?

- No country has the ability to identify and specifically regulate every hazardous chemical product.
- For example, in the United States, there are an estimated 650,000 such products.
- Adoption of requirements for information to accompany the product helps address protection needs.

Why? (cont.)

- Many different countries have come to the same conclusion about using information dissemination as a regulatory means to address chemical hazards.
- While similar, they are different enough to require multiple labels and safety data sheets for the same product in international trade.

Why? (cont.)

- Countries with systems have different requirements for hazard definitions as well as information to be included on a label or material safety data sheet.
- For example, a product may be considered flammable or toxic in one country, but not in another to which it is being shipped.

Why? (cont.)

- These differences impact both protection and trade.
- In the area of protection, users in countries that don't have specific requirements may see different label warnings or data sheet information for the same chemical.

Why? (cont.)

- In the area of trade, the need to comply with multiple regulations regarding hazard classification and labelling is costly and time-consuming.
- Small to medium enterprises are effectively precluded from international trade in chemicals due to the regulatory burden of compliance.

Examples of the Differences

- Prior to this harmonization effort, the EU had a Class 1 cut-off for acute toxicity of 25 mg/kg (oral), while the US used 50 mg/kg.
- All chemicals between 25 and 50 mg/kg were classified differently as a result.

Benefits of Harmonisation

- Countries, international organizations, chemical producers and users of chemicals all benefit.
  - Enhance protection of humans and environment.
  - Facilitate international trade in chemicals.
  - Reduce need for testing and evaluation.
  - Assist countries and international organizations to ensure the sound management of chemicals.

International Recognition

- In 1989-90, the International Labor Organisation developed and adopted a convention and recommendation on Safety in the Use of Chemicals at Work.
- These instruments require countries to adopt a system for hazard classification and labelling.

Recognition (cont.)

- The ILO technical committee also passed a resolution asking the ILO to study the task required to achieve harmonisation.
- The ILO concluded that there were four major existing systems that needed to be harmonised to achieve a global approach.

Major Existing Systems

- Recommendations of the United Nations' Committee of Experts on the Transport of Dangerous Goods
- European Union Directives
- Canadian Requirements
- US Requirements

International Mandate

- Shortly thereafter, the United Nations Conference on the Environment and Development (UNCED) took place in 1992 in Brazil.
- Agreements endorsed by United Nations General Assembly.
- Established 6 programme areas to strengthen national and international efforts related to the environmentally sound management of chemicals.

Chapter 19, Agenda 21 Programme Areas

- Risk assessment.
- Harmonisation of classification and labelling of chemicals.
- Information exchange.
- Risk reduction programmes.
- Strengthening of national chemical management capabilities and capacities.
- Prevention of illegal international traffic in toxic and dangerous products.

Specific Mandate

- A globally-harmonised 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 Harmonisation

- Under the umbrella of the Interorganization Programme for the Sound Management of Chemicals (IOMC). Coordinating Group for Harmonisation of Chemical Classification Systems (CG/HCCS) manages the process.
- Technical work divided among international focal points.

Focal Points

- UN Committee of Experts on TDG (physical hazard criteria)
- Organization for Economic Cooperation and Development (OECD)(health and environmental hazard criteria; mixture classification)
- International Labor Organisation (ILO) (physical hazard criteria; hazard communication elements)

Principles Of Harmonisation

- Protections will not be reduced; comprehensibility will be key.
- All types of chemicals will be covered; will be based on intrinsic properties (hazards) of chemicals.
- All systems will have to be changed.

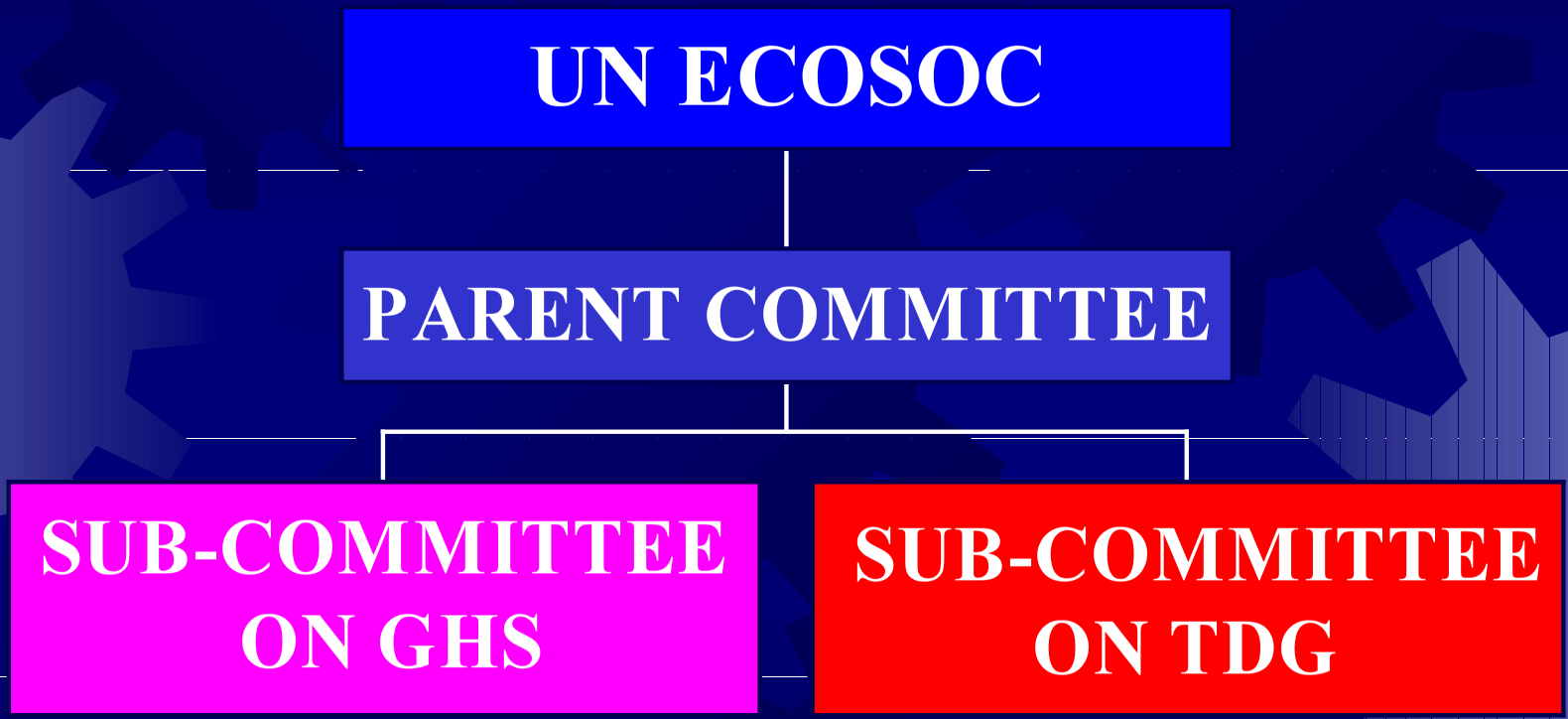
Status of the Work

- Technical work on criteria for health, physical and environmental hazards essentially complete.
- Classification of mixtures completed.
- Hazard communication complete except for 2 issues.
- CG/HCCS preparing “the system”.

Plans for International Implementation

- The GHS will be a non-mandatory recommendation available to countries to implement.
- The permanent “home” for the GHS will be the UN ECOSOC. The GHS Subcommittee will be responsible for implementation issues, and maintenance/update of the technical work in the future.

New ECOSOC GHS Structure



Time Frame

- The technical work will continue during 2001.
- The GHS Subcommittee will meet in July and December of 2001 to organize itself, and start discussing implementation and capacity building issues.
- The GHS will be formally presented to the Subcommittee in July 2002.

The “Form” of the GHS

- The IOMC Coordinating Group will be integrating the work of the technical groups into a Guidance Document.
- The Guidance Document will provide the technical criteria, as well as additional information about how they should be applied.
- It will be similar to the UN Orange Book.

Tools Required for Implementation

- In addition to the Guidance Document (The Purple Book), the IOMC Coordinating Group has solicited input from countries on other tools that would be helpful for implementation:
  - Web-based training?
  - Availability of personal training from those familiar with the system?
  - Other publications; audiovisual aids?

Conclusion

- The GHS will provide all countries with a structure to classify and label hazardous chemicals. It will help ensure that coherent information is provided on all imported and exported chemicals worldwide.
- This information will form the basis of systems for the sound management of chemicals worldwide.

Conclusion, cont.

- Development of the GHS has been a difficult and long-term process. The work that has been completed has required much discussion and compromise.
- Hopefully, the system will be widely applied, and significant benefits to human health and the environment will be the result of that application.

More Information

- Http://www.osha.gov
- Click on subject index; hazard communication.
- Harmonisation button on left.
- Links to international organization web sites where papers are posted.