

# The Global Harmonization System (GHS) Update: Overall Implementation Issues

*Presented by*  
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# PRESENTATION CONTENTS

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- ▶ **WHAT IS THE GHS**
- ▶ **GLOBAL IMPLEMENTATION OF THE GHS**
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# WHAT IS THE GHS\*?

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- ▶ Global Harmonized System of Classification and Labeling of Chemicals
- ▶ Globally Harmonized criteria for classifying substances and mixtures according to their health, environmental and physical hazards
- ▶ Globally Harmonized communicating elements including labels and safety data sheets.

\* From the Purple Book



# WHY THE GHS?

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## International Mandate from UNCED Agenda 21, Chapter 19, 1992

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



# WHY THE GHS?

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- ▶ **No country has the capability to identify and specifically regulate all chemical products**
- ▶ **Many countries have their own systems which address classification and communications issues differently in many cases**
- ▶ **With the extensive global trading in chemicals being a reality there was a need to have a recognized internationally developed approach to classification and labeling that would provide protection for all workers.**



# THE SCOPE OF THE GHS

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**The GHS covers all hazardous chemical substances and mixtures.**

**However, pharmaceuticals, food additives, cosmetics and pesticide residues in food will not be covered at the point of intentional intake or use but will be covered where workers may be exposed and in transport.**



# OBJECTIVES OF HARMONIZATION

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- “Enhance the protection of human health and the environment by providing an internationally comprehensible system for hazard communication”*
- “Provide a recognized framework for countries without an existing system”*
- “Reduce the need for testing and evaluation of chemicals”*
- “Facilitate international trade in chemicals”*



# GLOBAL IMPLEMENTATION OBJECTIVE

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**UN Economic and Social Council endorsed  
the GHS in July 2003**

**The World Summit on Sustainable  
Development:**

***Encourage all countries to  
implement the GHS as soon as  
possible with a view to have the  
system fully operational by 2008.***





# GLOBAL BENEFITS

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- ▶ **Enhance protection of humans and the environment**
- ▶ **Facilitates the international trade in chemicals**
- ▶ **Reduces the need for testing and evaluation**
- ▶ **Assist countries and international organizations to ensure the sound management of chemicals**



# ELEMENTS OF THE GHS

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## 1. Hazard Classification

- ▶ Health Hazards
- ▶ Environmental Hazards
- ▶ Physical Hazards
- ▶ Mixtures

## 2. Hazard Communication

- ▶ Labels
- ▶ Safety Data Sheets



# WHAT IS NOT INCLUDED IN GHS

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**Not intended to harmonize risk assessment procedures or risk management decisions such as Permissible Exposure Guidelines**

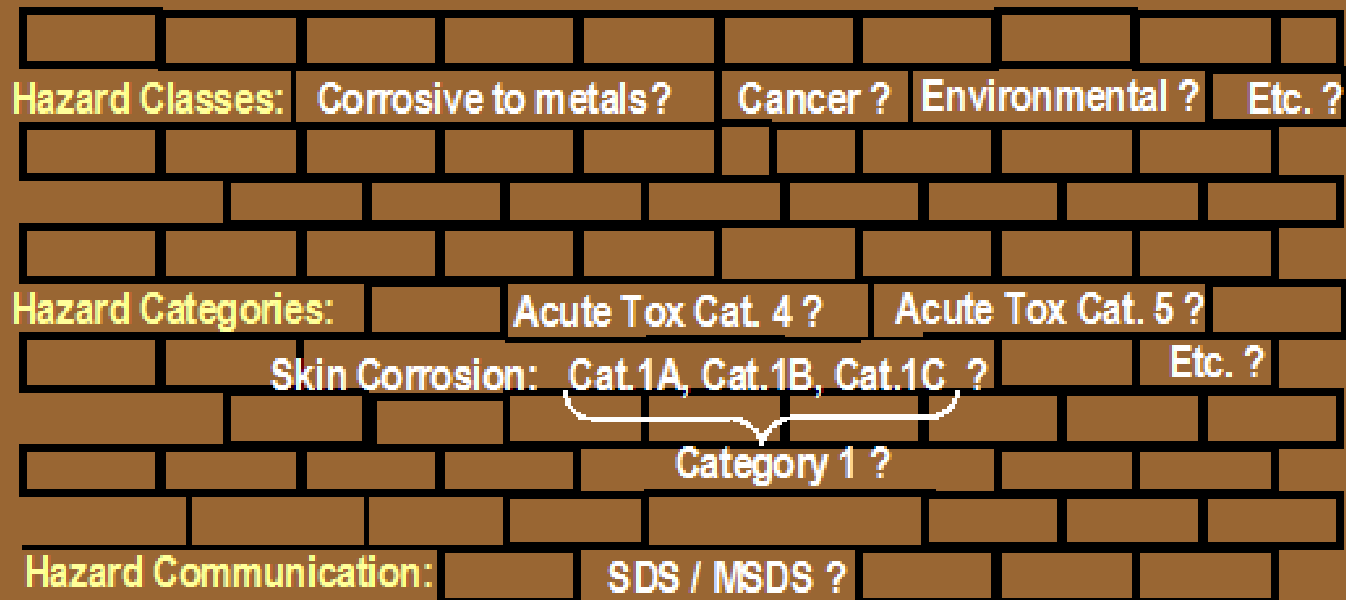
**No requirement for chemical inventories**

**Employee training is NOT included in GHS**



# GHS Building Blocks

Transport, Workplace, Consumers, Pesticides, Etc.



# BUILDING BLOCK APPROACH

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Each country can choose which building blocks will be used in each sector.

For each GHS class/category that is to be adopted, then they should be using

▶ **The corresponding GHS classification rules**

**AND**

▶ **The corresponding label elements**



# HEALTH HAZARD CLASSES

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1. Acute toxicity
2. Skin corrosion/irritation
3. Serious Eye Damage/Eye Irritation
4. Respiratory or Skin Sensitization
5. Germ Cell mutagenicity
6. Carcinogenicity
7. Reproductive Toxicity
8. Target Organ Systemic Toxicity
9. Aspiration Hazard



# ENVIRONMENTAL HAZARD CLASSES

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1. Hazardous to Aquatic Environment
2. Hazardous to the Terrestrial Environment (in progress)



# PHYSICAL HAZARD CLASSES

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1. Explosives
2. Flammability – gases, aerosols, liquids, solids
3. Water-activated Flammable Gases
4. Oxidizers – liquid, solid, gases
5. Self-reactive





# PHYSICAL HAZARD CLASSES

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6. Pyrophoric – liquids, solids
7. Self-Heating
8. Organic Peroxides
9. Corrosive to Metals
10. Gases under pressure



# GLOBAL INITIATIVES

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**ASIA**

**EUROPE**

**AFRICA**

**SOUTH AMERICA**

**AUSTRALIA, NZ**

**NORTH AMERICA**



# Europe – Regional Activities

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## European Union

- ▶ **Goal:** The GHS will be implemented as close as possible to REACH (new chemicals legislation) which comes into force 06-01-2007.
- ▶ **Fall 2006:** Public internet consultation on draft legal text and technical annexes.

[http://ec.europa.eu/enterprise/reach/  
ghs\\_consultation\\_en.html](http://ec.europa.eu/enterprise/reach/ghs_consultation_en.html)



# Asia – Regional Activities

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## ASEAN Region

- ▶ Region is working together toward regional GHS implementation.
- ▶ UNITAR Regional Workshop on GHS implementation held in October 2005.
- ▶ Two-year UNITAR project (2005-2007) to strengthen capacities in ASEAN countries for implementing the GHS.
- ▶ Japan has adopted all Building Blocks and Categories, GHS labelling already required for 1500 listed chemicals, GHS compliant SDS's not required until 12/2008



# Australia and New Zealand

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## Australia

- ▶ **Workplace chemicals sector is currently developing a new National Standard and Code of Practice.**
- ▶ **The code of practice will provide guidance on labelling workplace chemicals consistent with the GHS.**
- ▶ **Ongoing progress in other chemical sectors.**

## New Zealand

- ▶ **GHS has been introduced into New Zealand law.**
- ▶ **Final implementation of all GHS requirements will consider timing of implementation of major trading partners.**



# Africa – Regional Activities

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**SADC held GHS Implementation Workshop with both national and regional focus and have had follow-up meetings.**

**GHS workshop for the West African Regions (ECOWAS) is under consideration for 2007.**



# South America – Regional Activities

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**South American GHS Implementation workshop held in 2004 with both a national and regional focus.**

- ▶ **Involved both the countries of MERCOSUR and the ANDEAN communities.**

**GHS has been identified as one of the six issues of highest priority for the MERCOSUR Ad hoc Group on Chemicals.**



# North America – Regional Activities

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## NAFTA

- ▶ **NAFTA Technical Working Group on Pesticides has included GHS on its work plan with a goal to achieving a harmonized process among NAFTA countries and to implement the GHS in a coordinated manner.**





# North America – Country Activities

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## Mexico

- ▶ Participating in the UN Sub-Committee of Experts on the GHS (UNSEGHS).
- ▶ Actively working towards GHS implementation considering implementation in other key economies.



# North America – Country Activities

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## US

- ▶ **Chairman of the US CPSC has publicly committed to working on GHS implementation. Resources have now been devoted to considering GHS implementation issues.**
- ▶ **Document comparing PMRA and US EPA preliminary recommendations for change to implement the GHS in each system has been released. The EPA is now considering the next steps in light of input it's received to date.**
- ▶ **The US Occupational Safety and Health Administration (US OSHA) has included GHS implementation in its Regulatory Agenda. An Advance Notice of Proposed Rulemaking was released in September 2006. They are now analyzing the comments received.**



# THE GHS IN CANADA

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**Harmonization to the greatest extent possible between the sectors.**

**Harmonization to the greatest extent possible between the NAFTA countries.**



# CANADIAN SECTORS

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- **Health Canada**
  - **Consumer Chemical Products**
  - **Pest Control Products**
  - **Workplace Chemicals (WHMIS)**
- **Transport Canada**
  - **Transport of Dangerous Goods**
- **Ad hoc Expert Groups**
  - **Chronic Hazards for Consumer Chemicals**
  - **Environmental Hazard Classification/Labelling**



# CANADA'S DILEMMA

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- ▶ **WHMIS, TDG, PESTICIDES CONSUMER COMMODITIES**
- ▶ **These concerns are not addressed in a harmonized way, regulations differ**
- ▶ **Domestic producers have to classify and label multiple times for the same product**
- ▶ **Users would prefer standardized labels and SDS's for all products**



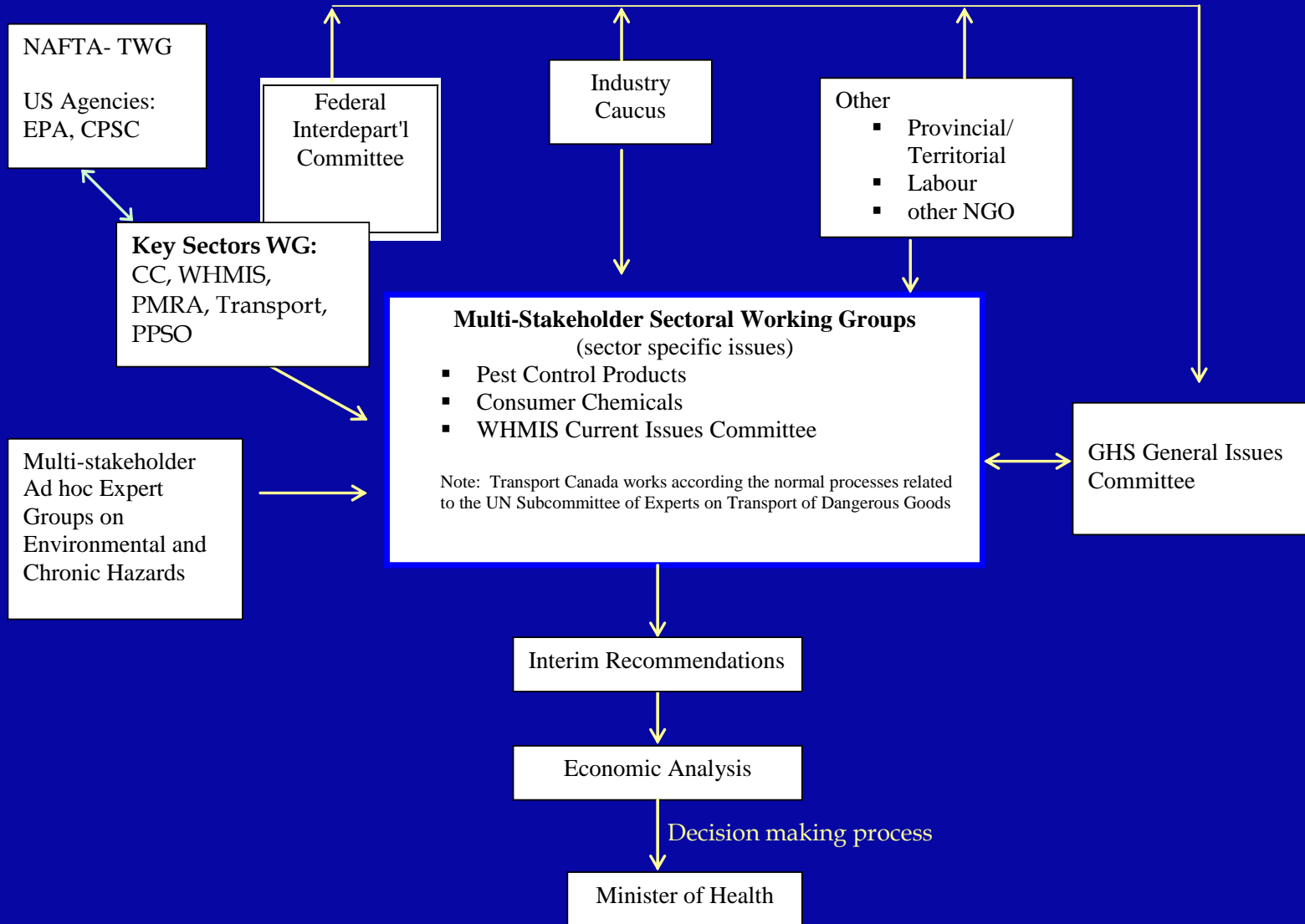
# CANADIAN PROCESS

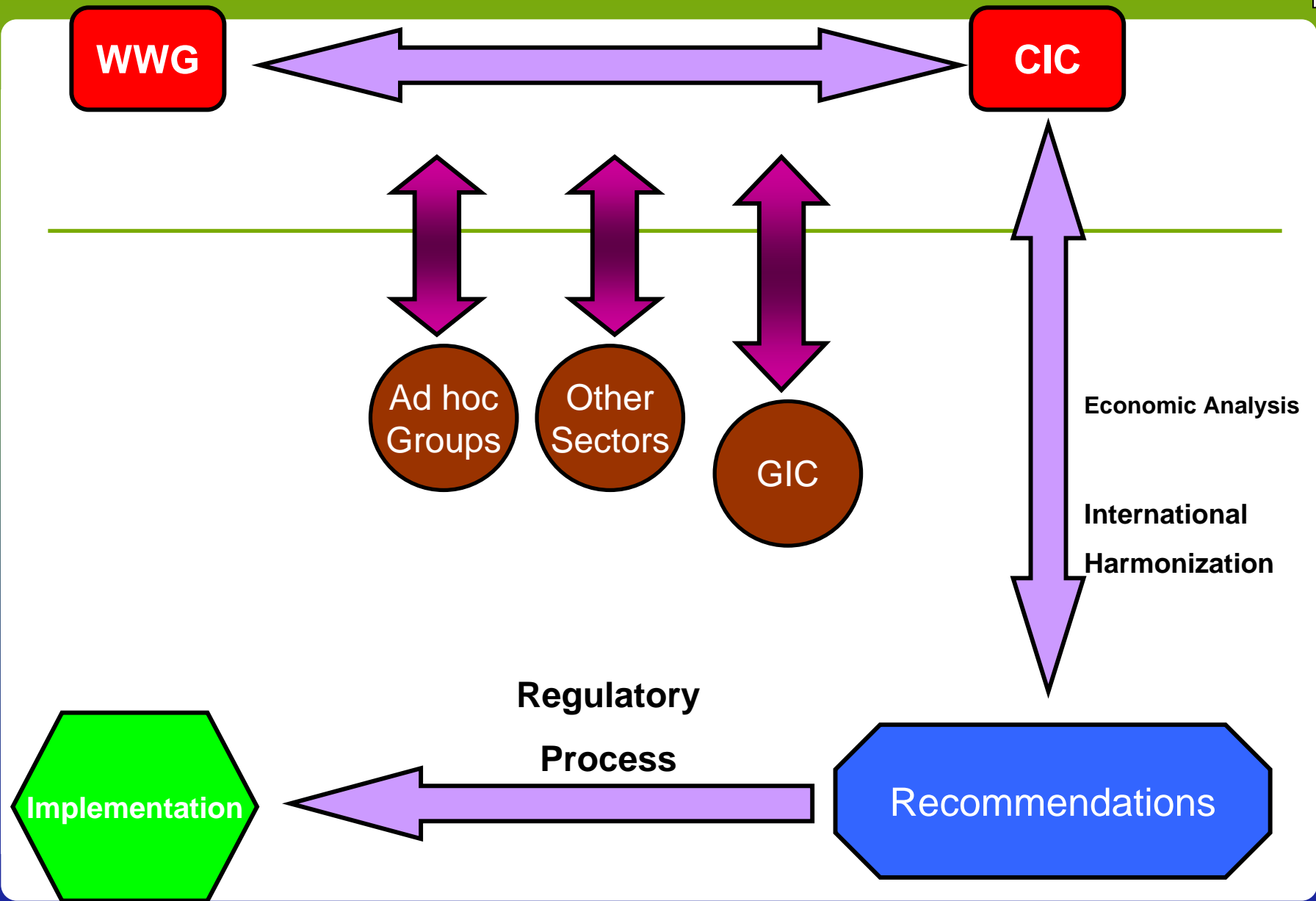
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- ▶ **Ad Hoc Expert Groups, Environmental & Chronic Hazards**
- ▶ **Sectoral Working Groups TDG, PMRA, WHMIS**
- ▶ **WCWG – WHMIS Classification Working Group – Tripartite**
- ▶ **CIC – WHMIS Current Issues Committee**
  - **Tripartite**



## Governance Overview: GHS Implementation in Canada







# WCWG MANDATE

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- ▶ **WHMIS Classification Working Group for Implementation of GHS for Hazard Classification and Labeling of Chemicals**
- ▶ **Working group of WHMIS CIC chaired by WHMIS Division of Health Canada**
- ▶ **WCWG will discuss modifications to the current WHMIS system among the tripartite stakeholders and make recommendations to the CIC**



# WCWG MANDATE

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- ▶ **WCWG will strive to harmonize GHS implementation plans to the greatest extent possible in Canada and internationally within the meaning of the building block approach**
- ▶ **Where ever possible the current protection offered by WHMIS will be retained or be made better.**
- ▶ **WCWG works on tripartite consensus. Where consensus is not reached the CIC and Health Canada will make the decision.**



# WHERE ARE WE NOW

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- ▶ **Technical Consultations with Sectoral Working Groups to develop interim recommendations are almost complete**
- ▶ **Transport of Dangerous Goods: When the current proposed regulatory amendments are approved, TDG in Canada will be aligned with GHS. No transition period necessary for implementation.**
- ▶ **Consumer Chemicals: Technical discussion still underway:**
  - **E.g., physical hazards other than flammability, and**
  - **Target organ toxicity (single exposure).**



# WHERE ARE WE NOW

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**Consumer Chemicals: Technical discussion still underway:**

- ▶ E.g., physical hazards other than flammability, and
- ▶ Target organ toxicity (single exposure).

**WCWG- has essentially reviewed all of the current GHS classification issues and made recommendations to the CIC**

- ▶ Several outstanding issues where more information is required
- ▶ As UNSEGHS makes more decisions or changes those will be reviewed



# EFFECTS OF GHS ON WHMIS

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- Changes to existing classification criteria;
- Changes to label elements;
- Changes to MSDS's (SDS)
- Changes to "administrative" options and special provisions;
- OSH regulations and other downstream effects, including:
  - SOPs,
  - Policies,
  - Reference manual and other guidance and web documents.



# WCWG CLASSIFICATION EXAMPLE

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- ▶ **Oxidizing Solids:**
  - WHMIS (CPR) has one class
  - GHS has three categories
- ▶ **Working Group agreed on the 3 GHS categories which will increase protection**



# WCWG CLASSIFICATION EXAMPLE

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## Respiratory Tract Sensitization

- ▶ WHMIS (CPR) has 0.1% cut-off value for untested mixtures
- ▶ GHS uses a tiered approach which includes the application of bridging principles and cut off values of 0.1%, 0.2% and 1.0%

Working Group chose to stay with a cut-off value of 0.1% to ensure same protection



# GHS TIMING IN CANADA

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- **Technical Consultations are almost complete**
- **Interim Recommendations being developed**
- **Next steps:**
  - ▶ **Consultation on implementation phase-in options**
  - ▶ **Consultation with trading partners**
  - ▶ **Economic analysis**
  - ▶ **Development of final recommendations**





# GHS TIMING IN CANADA

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- ▶ **Next steps continued:**
  - **Decision Making**
  - **Draft Regulations**
  - **Regulatory process**



# GHS TIMING IN CANADA

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- Phasing in implementation
- During all phases Canada has to monitor what other jurisdictions are doing and be prepared to react accordingly



# OSHA CONSULTATIONS

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## October 26, 2006 Teleconference:

- ▶ Label format, including label border requirements
- ▶ Organic Peroxides & Self-reactives, Type G
- ▶ Aspiration Hazards
- ▶ Complex mixtures as defined by WHMIS
- ▶ Precautionary Statements
- ▶ Skin & Respiratory Sensitizers



# OSHA CONSULTATIONS

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December 18, 2006 Teleconference

- ▶ **Target Organ Systemic Toxicity (TOST)**
- ▶ **Flammable Liquid Mixtures: Mathematical Formula**
- ▶ **Physical hazards classification**
- ▶ **Labelling of small volume containers, kits, bulk shipments & multi-containers**
- ▶ **Review Period**
- ▶ **Disclosure Of Chemical Identities**
- ▶ **Transition Options**



# WHMIS Model OSH

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- **Small group, Model OSH Ad Hoc Committee consisting of provincial regulators produced working document Oct 06**
- **Reviewed by Model OSH Working Committee**
- **Agreement on all but 3 sections**
- **Report submitted to Model OSH Steering Committee March 07 and sent to WCWG stakeholders for comment**



# WHMIS Model OSH

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- MO will be reviewed by tripartite members of WHMIS CIC April 07-June 07 who will make recommendations
- Jan 08 revised MO will go to Provincial Gov'ts for review
- Provinces will consult with stake holders to recommend changes to their WHMIS regulations



# FURTHER WORK OF THE UNSEGHS

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## Updating the GHS -

### ▶ Physical Hazards

- Unstable gases;
- Substances with explosive properties and desensitized explosives

### ▶ Health Hazards

- Substances which, in contact with water, release toxic/corrosive gases;
- Sensitization - strong versus weak sensitizers

## Hazard Communication Issues

- Further improve Annexes 1,2 &3 (Labelling)
- Guidance for labelling of very small packaging.



# FURTHER INFORMATION

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## Acknowledgements:

- ▶ Kim Headrick PPSO PPS Health Canada
- ▶ Abbey Klugerman National Office WHMIS
- ▶ Cathy Dumschat CCOHS

## Websites:

- ▶ [www.unece.org/trans/danger/publi/ghs/ghs.html](http://www.unece.org/trans/danger/publi/ghs/ghs.html)
- ▶ [www.healthcanada.ca/ghs](http://www.healthcanada.ca/ghs),  
[www.santecanada.ca/sgh](http://www.santecanada.ca/sgh)
- ▶ [www.unece.org/trans/danger/publi/ghs/implementation\\_e.html#top](http://www.unece.org/trans/danger/publi/ghs/implementation_e.html#top)
- ▶ [www.whmis.gc.ca](http://www.whmis.gc.ca)





# Thank You

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