

Globally Harmonized System of classification and labelling of chemicals (GHS) – Singapore's Implementation

Veronica Chow
 Sn A Director (Occupational Hygiene)
 OSH Specialist Department



MINISTRY OF
 MANPOWER

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14th Asia Pacific Confederation of Chemical Engineering (APCChE) Feb 2012

scope

- GHS & Hazardous Chemical Management Programme
- Singapore GHS Building Blocks
- Competent Authorities & Stakeholders
- Legislative requirements
- Strategies & Roadmap
- Journey & Milestones

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Endorsement of GHS

APEC Chemical Dialogue

....Ministers encouraged APEC members to work towards implementing the globally harmonized system (GHS) on hazard classification and labelling of chemicals and safety data sheets by 2006, including through capacity building....



14th APEC Ministerial Meeting, 2002

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Industry affected by GHS

Manufacturers of chemicals

- Refined petroleum products
- Chemicals & chemical products
- Pharmaceutical products
- Rubber & plastic products

Main users of chemicals

- Electrical and electronics
- Metal working
- Paper products & printing
- Machinery & equipment
- Wood working & furniture
- Shipyards & construction

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Overview - Chemical Control in Singapore

Different agencies regulate or control different hazardous chemicals

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Main Competent Authorities

- MINISTRY OF MANPOWER** safety & health aspects of hazardous chemicals at work
- National Environment Agency** regulates prescribed hazardous substances of environmental concerns
- SCDF** regulates petroleum & flammable substances
- SPF** regulates explosives
- MPA** controls dangerous goods in ports

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Legal responsibilities of chemical user

- Workplace Safety and Health Act (WSHA)
 - WSH (Risk Management) Regulations
 - WSH (General Provisions) Regulations
- Environmental Protection and Management Act (EPMA)
 - EPM (Hazardous Substances) Regulations
- Environmental Public Health Act (EPHA)
 - EPH (Toxic Industrial Waste) Regulations
- Fire Safety Act
 - Fire Safety (Petroleum & Flammable Materials) Regulations
- etc

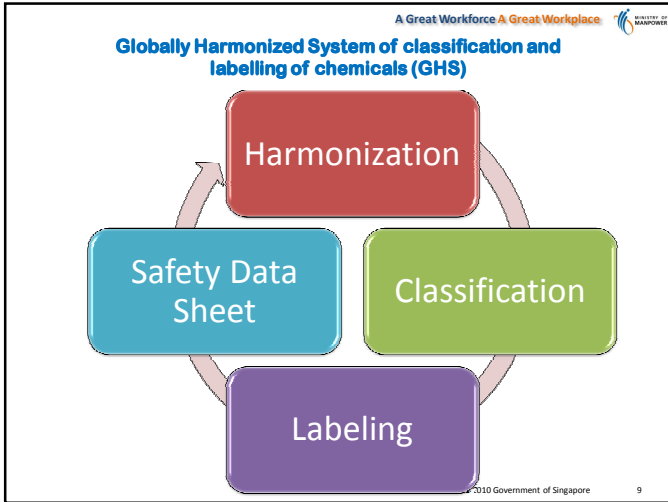
Key Stakeholders


Chemical Manufacturer → Singapore Chemical Industrial Council → Trade Association → Chemical user → Others

Chemical Supplier → Service provider


Precision Engineering 9% Biomedical Manufacturing 9% **Chemicals 32%**
 Transport Engineering 7% General Manufacturing 7% Electronics 36%

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GHS in a Nutshell



Key Information

- Hazards
- Precautions

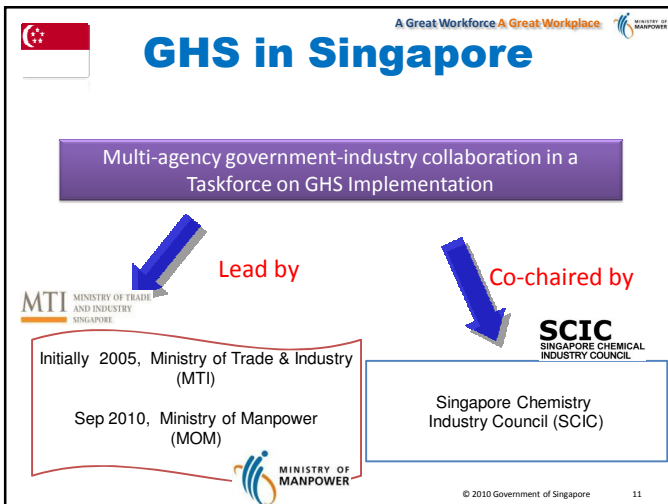
Purpose

- Protect human & the environment
- Facilitate trade

Hazard Communication System

- Between chemical suppliers & users
- Along the supply chain

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National GHS Implementation Task Force

Ministry of Manpower [MOM] 
Singapore Chemistry Industry Council [SCIC] 

Ministry of Trade and Industry [MIT]
 National Environment Agency [NEA]
 Singapore Civil Defence Force [SCDF]
 Singapore Police Force [SPF]
 Maritime and Port Authority [MPA]
 Standards Productivity and Innovation Board [SPRING]
 Health Science Authority [HSA]
 Workplace Safety and Health Council [WSHC]
 Singapore Institution of Safety Officers [SISO]



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Industry – led Approach

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SCIC SINGAPORE CHEMICAL INDUSTRY COUNCIL

An official body representing the chemical industry of Singapore in the private sector.

Is affiliated to the ASEAN Chemical Industries Club (ASEAN-CIC)

129 memberships mainly from multi-national and large companies

Roles & Services

-enlarged to include the petroleum sector and companies in the supporting services in the chemical industry besides the producers.

- provides access to a Responsible Care section where guiding principles and codes of management practices are published together with implementation framework for SCIC's member companies.

Responsible Care



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Singapore's Implementation plan

Vision: Safe use of chemicals

Strategic Outcome:
Implementation of GHS for effective hazard communication through labeling and safety data sheets

5 Strategies

- Promoting GHS
- Building capability in GHS
- Engaging stakeholders
- Establishing an effective regulatory framework
- Developing strong partnerships locally and internationally

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Strategy 1: Promoting GHS

- Singapore Standard SS 586 Hazard Communication
- Guidebook on GHS
- WSH Bulletin
- GHS leaflets
- GHS posters and postcards

Standard	Part 1	Part 2	Part 3
SS 586	Part 1, 2008	Part 2, 2008	Part 3, 2008
Revision	Initial development for hazard communication and program goals	Initial development for hazard communication and program goals	Initial development for hazard communication and program goals

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Building Blocks Not Adopted by Singapore

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Workplace Health Strategy

4 STRATEGIES

Implementing Targeted Intervention Programmes	Monitoring and Intelligence Gathering	Research and Standards Development	Promotion of Good Practices
<p>Areas of Work</p> <ul style="list-style-type: none"> Four key programmes <ul style="list-style-type: none"> (i) roley work (ii) hazardous chemicals (iii) asbestos (iv) confined space Developing and prescribing appropriate standards Providing compliance assistance Deepening capabilities to monitor and control hazards Educating and engaging employees Targeted enforcement 	<p>Areas of Work</p> <ul style="list-style-type: none"> Engaging doctors Exploring new mechanisms for data collection Enhancing and expanding monitoring programmes Enhancing links between existing databases Strengthening links with WSH-related organisations 	<p>Areas of Work</p> <ul style="list-style-type: none"> Established hazards <ul style="list-style-type: none"> Review existing exposure standards Develop improved tools and processes to minimise exposure to workers Emerging hazards <ul style="list-style-type: none"> Working with industry and relevant economic agencies to develop appropriate standards and control solutions 	<p>Areas of Work</p> <ul style="list-style-type: none"> Holistic approach towards workplace health promotion Creating a business case for employers Encouraging employees to take personal responsibility for their health at work

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Hazard Communication in an integral part of Hazardous Chemical Safety Management

- Policy and strategy
- Selection and procurement
- Register of chemicals & Safety Data Sheet
- Labeling & Warning Signs
- Storage & Transportation
- Risk assessment & Control
- safe work procedure & PPE
- Workplace monitoring & Medical Surveillance
- Information & Training
- Emergency planning & First Aid procedures
- Waste disposal
- Contract Work (if any)
- Programme Review and Audit

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Workplace Safety and Health Guidelines

Management of Hazardous Chemicals Programme

Compliance Assistance Checklist

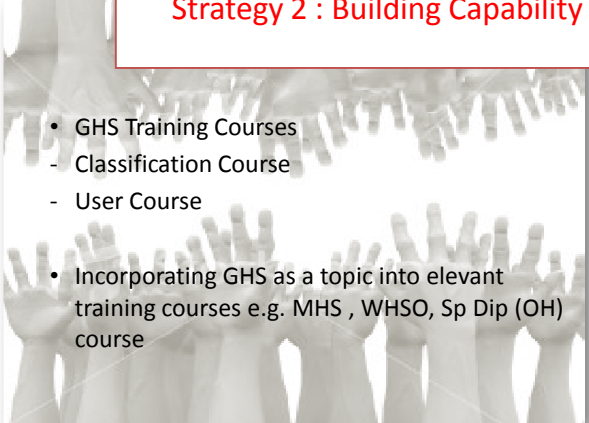
Management of Hazardous Chemicals Programme

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Strategy 2 : Building Capability

- GHS Training Courses
 - Classification Course
 - User Course
- Incorporating GHS as a topic into relevant training courses e.g. MHS , WHSO , Sp Dip (OH) course



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Strategy 3 :Engaging Stakeholders

- Industry Dialogues
- Licenses of hazardous and flammable substances
- National GHS Seminars
 - chemical manufacturers & suppliers
 - users of chemicals
 - others



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Strategy 4 : Regulatory Framework

- WSH Act
 - WSH (General Provisions) Regulations
 - ACOP :SS 586 Hazard Communication
- Fire Safety Act
 - Fire Safety (Petroleum & Flammable Materials) Regulations
- Environmental Protection & Management Act
 - EPM (Hazardous Substances) Regulations



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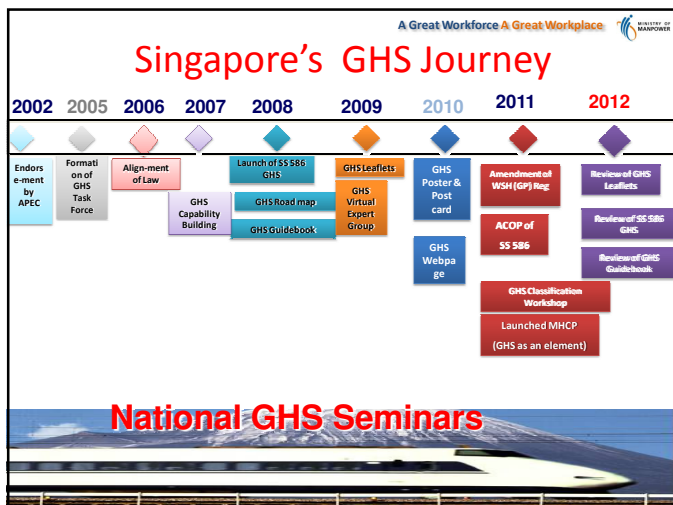
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Strategy 5: Develop Strong Partnership

- Competent authorities
- Trade unions
- Employer organisations
- Chemical associations
- Professional institutions
- Virtual GHS Expert Group




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Latest 2011 Revised Draft GHS Implementation Deadlines

Phase	Deadline	Target Industry	Requirement
1A	Feb 2012	All Chemical Manufacturers & Suppliers	Preparation of GHS SDSs & Labels for Single Substances.
2A	End 2012	All Users of Chemicals	GHS Labelling of Containers for Single Substances.
1B	Mid 2015	All Chemical Manufacturers & Suppliers	Preparation of GHS SDSs & Labels for Mixtures.
2B	Mid 2015	All Users of Chemicals	GHS Labelling of Containers for Mixtures.




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Experience & Lesson Learnt

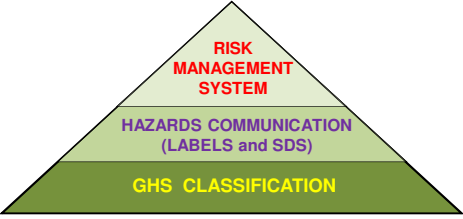
1. **Cooperation** among competent authorities
2. An appropriate **body** to champion or drive GHS
3. **Engaging stakeholders**, in particular **chemical manufacturers & suppliers**
4. **Building capability**, particularly on **GHS classification for SME**
5. A **GHS roadmap**
6. **Legislation back-up**
7. **Evolving UN GHS document; revised once in 2 years**



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Safe Use of Chemicals




RISK MANAGEMENT SYSTEM

HAZARDS COMMUNICATION (LABELS and SDS)


GHS CLASSIFICATION

GHS as a baseline of Chemical Management

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Thank You



**A Shared Vision:
TOWARDS
A SAFE & HEALTHY
WORKPLACE
FOR EVERYONE**

For more info:
Ministry of Manpower Singapore
www.mom.gov.sg
Workplace Safety and Health Council
www.wshc.gov.sg