Chemical Management in Malaysia

19th APIC, Tokyo, Japan
3-4 March 2016
OUTLINE

- Background of Chemicals in Malaysia
- Legislation related to Chemical Management (Malaysia)
- Need of Sound Management of Chemicals
- Proposed - Strategy and Action Plan
<table>
<thead>
<tr>
<th>Sector</th>
<th>Sub-Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum products &amp; Natural gas</td>
<td></td>
</tr>
<tr>
<td>Chemical and chemical products</td>
<td>Agricultural chemicals, pesticides, fertilisers, Soap, detergent, cosmetics</td>
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<tr>
<td>Rubber products</td>
<td>Natural Rubber latex</td>
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<td></td>
<td>Latex Threads (synthetic)</td>
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<td>Plastic resin and product</td>
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</tbody>
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Chemical Industry Market size

Data 2013

Export:
Chemicals and chemical products – RM 47.7 billion

Import:
Chemicals and chemical products – RM 55.9 billion
Current status of chemicals usage

• **Too many** chemicals substances and products put into the market without any knowledge of its risk to the human and environment.

• **Uncertainty** on types of chemicals used in a wide range of consumer products as they have not been assessed

• **Continued use** of chemicals with inherently dangerous properties such as carcinogen, mutagens and reproductive toxicants and substances dangerous to the environment as there is no knowledge of its risks

• **Long term** persistence and accumulation of chemicals in the ecosystem and humans as there is no control on its usage
Chemical management - current

• Initiated in 2006 under the project entitled Environmentally Hazardous Substances (EHS)

• Basic laws to manage chemicals are available except it is fragmented because different agencies are regulating different stages of the chemicals’ life cycle
Management of chemicals life cycles
## Related Legislation and Agencies

<table>
<thead>
<tr>
<th>Substance &amp; Jurisdiction</th>
<th>Ministries</th>
<th>Agencies</th>
<th>Legislation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import, export, sales and trades – Petroleum &amp; petroleum products</td>
<td>Ministry of International Trade and Industries</td>
<td>-</td>
<td>Petroleum (Safety Measures) Act 1984</td>
</tr>
<tr>
<td>Import &amp; exports</td>
<td>Ministry of Finance</td>
<td>Royal Malaysian Customs</td>
<td>Customs Act 1967</td>
</tr>
<tr>
<td>Industrial Chemicals</td>
<td>Ministry of Human Resources</td>
<td>Department of Safety and Health</td>
<td>Occupational and Safety Health Act 1994</td>
</tr>
<tr>
<td>Pharmaceutical, drugs, some consumer products</td>
<td>Ministry of Health</td>
<td>Pharmaceutical Services Division</td>
<td>Poison Act 1952, Dangerous Drugs Act 1952, Food Act 1983</td>
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<tr>
<td>Pesticides</td>
<td>Ministry of Agriculture and Agro-chemicals</td>
<td>Department of Agriculture</td>
<td>Pesticides Act 1974</td>
</tr>
<tr>
<td>Consumers Product</td>
<td>Ministry of Domestic Trade, Co-operative and Consumerism</td>
<td>-</td>
<td>Consumer Protection Act 1999 (Safety issues not chemical content)</td>
</tr>
<tr>
<td>Chemical Weapon (Chemical Weapon Convention)</td>
<td>Ministry of Foreign Affairs</td>
<td>-</td>
<td>Chemical Weapon Convention Act 2005</td>
</tr>
<tr>
<td>Hazardous Waste (Scheduled Wastes)</td>
<td>Ministry of Natural Resources and Environment</td>
<td>Department of Environment</td>
<td>Environmental Quality Act 1974</td>
</tr>
</tbody>
</table>
Legislations (Malaysia) related to Chemicals Management
Trade

Act:
Strategic Trade Act 2010

Regulations/Order/Rules:
1. Strategic Trade regulation 2010
2. Strategic Trade (Certification of Approval and Conformity Mark of Safe Standards) Regulations 2010

Import and Export

Act:
Custom Act 1967

Regulations/Order/Rules:
1. Customs Regulation 1977
2. Customs (Prohibition of Exports) Order 2012
3. Customs (Prohibition of Imports) Order 2012
Environment

Act:

Environmental Quality Act 1974

Regulations/Order/Rules:
1. Environmental Quality (Clean Air) Regulations 2014
2. Environmental Quality (Industrial Effluent) Regulations 2009
3. Environmental Quality (Sewage) Regulation 2009
4. Environmental Quality (Control of Pollution from Solid Waste Transfer Station and Landfill) Regulations 2009
5. Environmental Quality (Scheduled Wastes) Regulation 2005 - New draft at amendment stage
Environment (Contd)

Act:

**Environmental Quality Act 1974**

 Regulations/Order/Rules:

7. Environmental Quality (Control of Emission from Motorcycles) Regulation 2003
8. Environmental Quality (Control of Emission from Diesel Engines) Regulation 1996
9. Environmental Quality (Control of Emission from Petrol Engines) Regulations 1996
10. Environmental Quality (Control of Lead concentration in Motor Gasoline) Regulations 1985
11. Environmental Quality (Prescribed conveyance) (Scheduled Wastes) Order 2005
12. Environmental Quality (Prohibition on the Use of Controlled Substances in Soap, synthetic detergents and other cleaning Agents) Order 1995
13. Environmental Quality (Prohibition on the Use of Chlorofluorocarbon and other gases as propellants and Blowing agents ) Order 1993
Occupational Safety and Health

**Act:**
1. Occupational Safety and Health Act 1994
2. Factories and Machinery Act 1967

**Act 1974**

**Regulations/Order/Rules:**
1. Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulation 2013
2. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) regulation 2000
3. Occupational Safety and Health (Control of Industrial Major Accidents Hazards) Regulation 1996
4. Occupational Safety and Health (Prohibition of Use of Substance) Order 1999
5. Factories and Machinery (Mineral Dust) Regulations 1989
7. Factories and Machinery (Lead) Regulations 1984
<table>
<thead>
<tr>
<th>Drugs</th>
<th>Dangerous Drugs</th>
</tr>
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<tbody>
<tr>
<td><strong>Act:</strong></td>
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<tr>
<td>Sale of Drugs Act 1952</td>
<td>Dangerous Drugs Act 1952</td>
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<tr>
<td>Regulations/Order/Rules:</td>
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<tr>
<td>Control of Drugs and Cosmetic Regulations</td>
<td>Dangerous Drugs Regulations 1952</td>
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<tr>
<td>1984</td>
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</table>
### Poisons

**Act:**
Poison Act 1952

**Regulations/Order/Rules:**
1. Poison (Psychotropic Substances) Regulations 1989
2. Poisons (Sodium Hydroxide) Regulations 1962
3. Poison Regulations 1952

### Pesticide

**Act:**
Pesticide Act 1974

**Regulations/Order/Rules:**
1. Pesticide (Highly Toxic Pesticide) Regulation 1996
2. Pesticide (Advertisement) Regulations 1996
3. Pesticide (Labelling) Regulations 1984
4. Pesticide (Licensing for Manufacturing) Rules 2011
5. Pesticide (Licensing for Sale and storage for Sales) 2007
6. Pesticide (Registration) Rule 2005
7. Pesticide (Pest Control Operator) Rules 2004
### Petroleum

**Act:**
- Petroleum (Safety Measures) Act 1984

**Regulations/Order/Rules:**
1. Petroleum (Safety Measures) (Transportation of Petroleum by Pipelines) regulation 1985
2. Petroleum (Safety Measures) (Transportation of Petroleum by Water) regulation 1985

### Transportation

**Act:**
- Road transport Act 2012

**Regulations/Order/Rules:**
1. Road Transport (Construct & Use) (Dangerous Goods Vehicle) Rule 2015
<table>
<thead>
<tr>
<th>Product Safety</th>
<th>National Security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Act:</strong></td>
<td><strong>Act:</strong></td>
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<td>2. Protected Areas and protected Places Act 1959</td>
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<td>Regulations/Order/Rules:</td>
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GHS Related Regulations

National Coordinating Committee of GHS (NCCGHS)
Ministry of International Trade and Industry (MITI)

Technical Working Group on GHS (TWG GHS)

Industrial Workplace
Dept. of Occupational Safety and Health (DOSH)
- Classification, Labelling and Safety Data Sheet of Hazardous Chemicals (CLASS) Regulations 2013
  - Implemented on 17 April 2015
  - Inventory of hazardous chemicals (products) to be submitted annually
- Use and Standards of Exposure to Chemicals Hazardous Health (USECHH) Regulation being revised to align with CLASS/GHS

Pesticides
Department of Agriculture (DOA)
- Nothing for now; to follow FAO’s lead on GHS

Consumer Product
Ministry of Domestic Trade (MTDCC)
- Evaluating GHS labeling on paints and cleaning agents/detergents
  - Two focus groups convened
  - Paints have completed evaluation

Transport
Ministry of Transport (MOT)
- Road Transport (Construction and Use) (Dangerous Goods Vehicle) Rules 2015 implements parts of ADR from 1 Jan 2016
Need of Sound Management of Chemicals
With Malaysia’s vision to be a developed nation by 2020, sound management of chemicals is an essential National Activity in order to minimise risk and prevent the adverse impact of chemicals on the environment, human health and safety with cross-sector commitment by all stakeholders in adopting good practise for safe and ecologically sustainable chemicals management.
Development of National Policy on Chemical Management

9th Malaysia Plan (2006-2010):
- Adoption of a global harmonized system for the registration of imports, transportation and safe handling of chemical and hazardous substances. (MITI)
- Approaches and technologies to treat and convert toxic wastes into a resource for reuse. (DOE)
- Appropriate incentives for the proper management of hazardous chemicals. (CICM)
- Steps to address the indiscriminate use of chemicals, particularly in agricultural practices, will be intensified. (DOA)

10th Malaysia Plan (2011-2015):
- Government will continue efforts to improve the efficiency and effectiveness of waste management (JPSPN and DOE)
- Increase awareness among public and educate them of the importance to reduce, reuse and recycle of waste (all stakeholders)

11th Malaysia Plan (2016-2020):
- 6 strategies proposed to integrate and strengthen chemical management framework system in Malaysia
Sound Management of Chemicals

- Includes both substances and mixtures

**Defination:**

**Substances**

- chemical elements and their compounds in the natural state or obtained by any production processes, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substances or changing its composition.

**Mixture**

- a mixture or solution composed of two or more substances that do not react in it
Sound Management of Chemicals

- Chemicals are managed in a comprehensive and holistic manner by taking consideration potential risks throughout their lifecycles.

- ‘Management’ of chemicals refers to the process of dealing or controlling things or people.

Sound Management of chemicals:
The application of, ‘managerial best practices to chemicals throughout their life cycles to prevent, and, where this is not possible, to reduce or minimize the potential for exposure of people and the environment to toxic and hazardous chemicals’. (UNEP, 2009)
Strategy and Action Plan
Proposed Strategies for Chemical Management (Malaysia) 2015-2020

**STRATEGY 1**
- Mainstream Chemical management as part of the National development planning

**STRATEGY 2**
- Enhancing legal framework of Chemical management

**STRATEGY 3**
- Strengthening chemical information and registry

**STRATEGY 4**
- Promoting chemical risk assessment

**STRATEGY 5**
- Enhancing awareness and capacity building for chemical management
## Action plan for Chemical Management

<table>
<thead>
<tr>
<th>STRATEGY 1</th>
<th>ACTION PLAN</th>
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<tbody>
<tr>
<td>Mainstream Chemical management as part of the National development planning</td>
<td>1. Incorporate chemical management into the 11th Malaysian Plan</td>
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<td>2. Develop funding mechanism to promote and sustain chemical management</td>
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### STRATEGY 2
Enhancing legal framework of Chemical management

### ACTION PLAN

1. Establish **National Chemicals Management board** responsible for chemical management
2. Strengthen existing legal framework for chemicals
3. Enhance enforcement of existing legal framework
Regulatory Landscape

In the future – National Chemicals Agency?

- Ministry of Natural Resources and Environment
- Ministry of Human Resources
- Ministry of Health
- Ministry of Agriculture and Agro-Based Industry
- Ministry of Domestic Trade, Cooperative & Consumerism
- Ministry of International Trade and Industry
- Department of Environment
- Department of Occupational Safety & Health
- Pharmaceutical Services Division
- Department of Agriculture
STRATEGY 3

Strengthening chemical information and registry

ACTION PLAN

1. Draft and gazette the EHS regulation
2. Improve EHS online notification system
3. Conduct seminars/roadshows on EHS online notification system
4. Conduct seminars/roadshow on CIMS under the CLASS regulation 2013
5. Enhance both EHS and CIMS online system to avoid unnecessary keying by the industry into both system for the same chemical
6. Maintenance of EHS and CIMS
<table>
<thead>
<tr>
<th>STRATEGY 4</th>
<th>ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting chemical risk assessment</td>
<td>Develop criteria for chemical risks assessment – <strong>still a draft, comments stage</strong></td>
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<tr>
<td>STRATEGY 5</td>
<td>ACTION PLAN</td>
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<tr>
<td>Enhancing awareness and capacity building for Chemical Management</td>
<td>To revise and update training modules for Chemicals management and chemical safety</td>
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Challenges

• Setting up of the Legal framework and Institutional coordination for the National Chemical Board

• Lack of information on industrial chemicals, especially in terms of Hazards properties

• Capacity to manage chemicals risk assessment in terms of technical resources and testing facilities

• Funding for national programmes for capacity building

• Low levels of awareness on chemicals management and safety among small and medium enterprise (SMEs)
References:

1. Department of Environment (DOE)
2. Department of Safety and Health (DOSH)
3. Chemical Industries Council of Malaysia (CICM)
4. Integrated & Holistic Management of chemicals in Malaysia – The National University of Malaysia
5. Current Status of Chemical Management in Malaysia – Hazardous Substances Division
6. MITI, Malaysia.
7. Ministry of Natural Resources and Environment Malaysia (NRE)
8. UNEP, 2009
Updates related to elimination of lead

• Factories and Machinery (Lead) Regulations 1984
• Malaysian Standard, MS ISO 8124-3:2012 – Safety for Toys
• Proposal to eliminate Lead in Paints by 2020 (ICCM4) however there is no strong drive from the Government as yet
• MPMA members agreed to eliminate ‘added’ lead for decorative paints voluntary - 2015
• MPMA members have taken initiatives to take up this project as part of Product stewardship - 2016

Thank You