

**3E Company HazMat Management
Web Seminar Series**

**An Asian GHS Case Study: GHS
Implementation, Future Notification
Scheme Plans & Improved Chemicals
Management in Malaysia**

**3E Company is the trusted global provider of
chemical, regulatory and compliance
information services**

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An Asian GHS Case Study: GHS Implementation, Future Notification Scheme Plans & Improved Chemicals Management in Malaysia

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Topics

- Current chemical regulation in Malaysia
- GHS implementation for workplace chemicals - new CLASS regulation
- Plans for a future notification scheme
- Chemical management in Malaysia in the future

Current chemical regulation in Malaysia

- Department of Environment:
 - Environmental Quality Act 1974, Act 127 (EQA)
- Department of Occupational Safety and Health
 - Occupational Safety and Health Act 1994, Act 514 (OSHA)
- Department of Agriculture / Pesticides Board
 - Pesticides Act 1974, Act 149
- Ministry of Health
 - Poisons Act 1952 (revised 1989), Act 366
 - Dangerous Drugs Act 1952 (revised 1980), Act 234
- Ministry of Foreign Affairs
 - Chemical Weapons Convention Act 2005, Act 641

- Environmental Quality Act (EQA)
 - Main legal instrument to regulate chemicals discharged into the environment and measures to assess, control, reduce or eliminate environmental risk
 - Includes provision to prescribe standards or criteria for determining when any matter including chemicals is considered detrimental to health
 - Will be the instrument to phase in new requirements for chemical management under DOE until a Chemical Act can be agreed upon

- Environmental Quality (Prohibition on the use of controlled substance in soap, detergent and other cleaning agents) Order 1995
 - Prohibits the use of Branched Alkylbenzene Sulphonates (BAS)
- Environmental Quality (Scheduled wastes) Regulation 2005
 - Defines "scheduled wastes" in First Schedule. Waste categorisation is now based on type of waste and not as much source and origin of waste as in the 1989 Regulation. E-waste was included in the 2005 issue.
 - Prescribes labeling requirements for scheduled wastes but does not specify criteria
 - Includes 5 main types of waste and 77 categories





Explosive substances
Label 1



Inflammable liquids
Label 2



Inflammable solids
Label 3



Spontaneously combustible
Label 4



Solid:
Dangerous when wet
Label 5



Oxidizing substances
Label 6



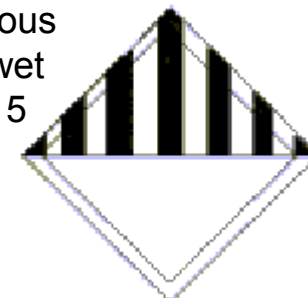
Organic peroxides
Label 7



Infectious substances
Label 9



Corrosive substances
Label 10



Mixture of miscellaneous
Dangerous Substances
Label 11



Toxic substances
Label 12

- Occupational Safety and Health Act 1994, Act 514 (OSHA)
 - Occupational Safety and Health (Classification, Packaging and Labelling of Hazardous Chemicals) Regulations 1997 (CPL)
 - Occupational Safety and Health (Use of Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000 (USECHH)

- **Applies to a supplier of any hazardous chemical for use at work**
- **Definitions:**
 - "chemicals" means chemical elements, compounds or mixture thereof, whether natural or synthetic, but do not include micro-organisms;
 - "hazardous chemicals " means any chemical which possesses any of the properties categorised in Schedule I, or for which relevant information exists to indicate that the chemical is hazardous.
 - "specific nature of the risk ", in relation to classification of chemicals, means the explosive, oxidising, extremely flammable, highly flammable, flammable, very toxic, toxic, harmful, corrosive, irritant, carcinogenic, teratogenic or mutagenic nature of a particular chemical;
 - " supplier " means a person who supplies chemicals and includes a formulator, a manufacturer, an importer or a distributor.

- Exemptions:
 - pesticides,
 - poisons (except industrial and laboratory poisons),
 - drugs,
 - radioactive material,
 - schedules waste,
 - carriage by road, rail sea, and air
 - transit at bonded warehouse
 - foodstuff

- Duties of the supplier:
 - to classify hazardous chemicals according to the specific nature of the risk involved based on the categories of hazards in Schedule I
 - to ensure that chemicals are supplied in good packaging
 - to furnish an up-to-date Chemical Safety Data Sheet for each hazardous chemical supplied
 - to review and revise the Chemical Safety Data Sheet from time to time when new information on a particular hazardous chemical becomes available
 - To write all information required on a Chemical Safety Data Sheet in pursuance of subregulation (2) shall in the national language and English

1. Product and company identification
2. Composition and information on ingredients
3. Hazard identification
4. First aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure control and personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal information
14. Transport information
15. Date and preparation of CSDS

The 15 mandatory information categories are arranged under 16 sections as proposed in the guideline (~ EU)

- The name of the hazardous chemical in accordance with the internationally recognised nomenclature;
 - Ranges: > 60 %; 30-60 %; 10-30 %; < 10 %
- The name, address and telephone number of the supplier;
- The danger symbol and indication of danger as specified in Schedule II;
- The nature of the special risk associated with the use of the chemical as specified in Schedule III; and
- The safety precautionary measures as specified in Schedule IV.

- Duties of the employer:
 - Keep a register of chemicals hazardous to health
 - An employer shall identify and record in a register all chemicals hazardous to health used in the place of work
 - The register shall be maintained and updated and shall contain the following information:
 - a list of chemicals hazardous to health used;
 - the current Chemical Safety Data Sheet (except for pesticides (information as in Schedule III));
 - the average quantity used, produced or stored per month or per year;
 - the process and work area where the hazardous chemicals are used;
 - the name address of the supplier of each of the chemicals hazardous to health
 - Written assessment of risks created by chemicals hazardous to health and which employees are likely to be exposed to

- Definitions:
 - "chemicals means chemical elements, or compounds or mixtures thereof, whether natural or synthetic, but does not include micro-organisms
 - "chemicals hazardous to health" means any chemical or preparation which -
 - a) is listed in Schedule I (exposure limits) or II (medical surveillance);
 - b) Possesses any of the properties categorised in part B of Schedule I of the CPL Regulations 1997 (health hazards)
 - c) Comes within the definition of "pesticide" under the pesticides Act 1974; or
 - d) Is listed in the first Schedule of the EQA (Scheduled Wastes) Regulations 1989.

- the potential risks to an employee as a result of exposure to chemicals hazardous to health;
- the method and procedures adopted in the use of the chemicals hazardous to health;
- the nature of the hazard to health;
- the degree of exposure to such chemicals hazardous to health;
- the risk to health created by the use and the release of chemicals from work processes;
- measures and procedures required to control the exposure of an employee to chemicals hazardous to health;
- the measures, procedures, and equipment necessary to control any accidental emission of a chemical hazardous to health as a result of leakage, spillage, or process or equipment failure;
- the necessity for employee exposure monitoring programme;
- the necessity for health surveillance programme; and
- the requirement for the training and retraining of employees as required under regulation 22.

- Guidelines for the Classification of Hazardous Chemicals, 1997
- Guidelines for Labelling of Hazardous Chemicals, 1997
- Guidelines for the Formulation of a Chemical Safety Data Sheet, 1997
- Guidelines for the Preparation of a Chemical Register, 2000
- Assessment of the Health Arising from Use of Hazardous Chemical in the Workplace (2nd Edition), 2000

GHS implementation for workplace chemicals - new regulation planned for 2008

Occupational Safety And Health (Classification,
Labeling And Safety Data Sheet For Hazardous
Chemicals) Regulations 20xx [CLASS]

1. Citation
2. Interpretation
3. Application
4. Duty to classify hazardous chemicals
5. Duty to label packaging
6. Dimension of hazard pictogram
7. Affixing of label
8. Special labelling arrangements
9. Duty to furnish safety data sheets
10. Confidential business information on chemical
11. Packaging requirement
12. Seal of package
13. Inventory of chemical supplied
14. Instruction and training

- Schedule I – Industrial and laboratory poisons
- Schedule II – Hazard class, category and communication elements
- Schedule III – Generic concentration limits
- Schedule IV - Dimension of hazard pictogram

- Hazardous chemicals
 - any chemical which fall under any of the hazard categories listed in Schedule II or for which relevant information exists to indicate that the chemical is hazardous
- Supplier
 - person who supplies chemicals and includes a formulator, a manufacturer, an importer, a distributor, a recycler, a retailer, or a repacker

- Apply to suppliers of hazardous chemicals except:
 - Radioactive materials
 - Pesticides
 - Poison except chemicals listed in [Schedule I](#)
 - Drugs
 - Scheduled wastes
 - Foodstuffs
 - Cosmetics

- Transportation of hazardous chemicals by rail, road, inland waterway, sea or air
- Hazardous chemicals in transit
- Chemical sample used for trial purposes and not exceeding 1 litre (per consignment)
 - Provide information on safe use
- Articles

- Classification:
 - formulator, manufacturer, importer or recycler to classify hazardous chemicals according to the specific nature of the hazards based on the categories of hazards in [Schedule II](#)
 - categories of hazard shall be in accordance to the classification criteria
 - refer to GHS Classification Manual
 - prescribed classification for single chemical
- Labeling:
 - Supplier to label packaging (Refer to guidelines on GHS labeling)

Physical	Health hazards	Environment
<ul style="list-style-type: none"> •Explosives •Flammable gases •Flammable aerosols •Flammable liquids •Flammable solids •Oxidizing gases •Oxidizing liquids •Oxidizing solids •Gases under pressure •Self-reactive chemicals •Pyrophoric liquids •Pyrophoric solids •Self-heating chemicals •Chemicals which, in contact with water, emit flammable gases •Organic peroxides •Corrosive to metals 	<ul style="list-style-type: none"> •Acute toxicity-oral •Acute toxicity-skin •Acute toxicity-inhalation •Skin corrosion/irritation •Serious eye damage/eye irritation •Respiratory sensitizer •Skin sensitizer •Germ cell mutagen •Carcinogen •Reproductive toxicant •Effect on or via lactation •Target organ systemic toxicant-single exposure •Target organ systemic toxicant-repeated exposure •Aspiration hazard 	<ul style="list-style-type: none"> • Acute • Chronic

- Supplier to furnish an up-to-date SDS for each hazardous chemical supplied to the chemical recipient
- Exception to-
 - Retailer or retail warehouse operator and the hazardous chemical is supplied in a consumer package
 - the hazardous chemical is supplied to the fuel tank of a vehicle as fuel for that vehicle.
- Format (as GHS recommendation)
- Written in national language and English

- A manufacturer and an importer
 - prepare an inventory of chemicals supplied to places of work
 - maintain the inventory in good order and condition and be updated from time to time
 - submit the inventory before 31st March of every year to the Director General

- The inventory contain the following information—
 - Trade or common name of chemical supplied;
 - Chemical name, CAS number and % of each hazardous ingredient of chemical;
 - Name, address and contact number of every chemical recipient;
 - Average quantity supplied to every recipient

- Guidance Note to the regulations
 - interpretations of the regulations
 - Guidance to DOSH officers for enforcement purpose
 - Guidance to industry for compliance
- Manual on GHS Classification
 - Guidance on how to classify hazardous chemicals
- Guidelines on GHS labelling
 - Guidance on how to label hazardous chemicals
- Guidelines on SDS
 - Guidance on how to prepare SDS for hazardous chemicals

Plans for a future notification scheme

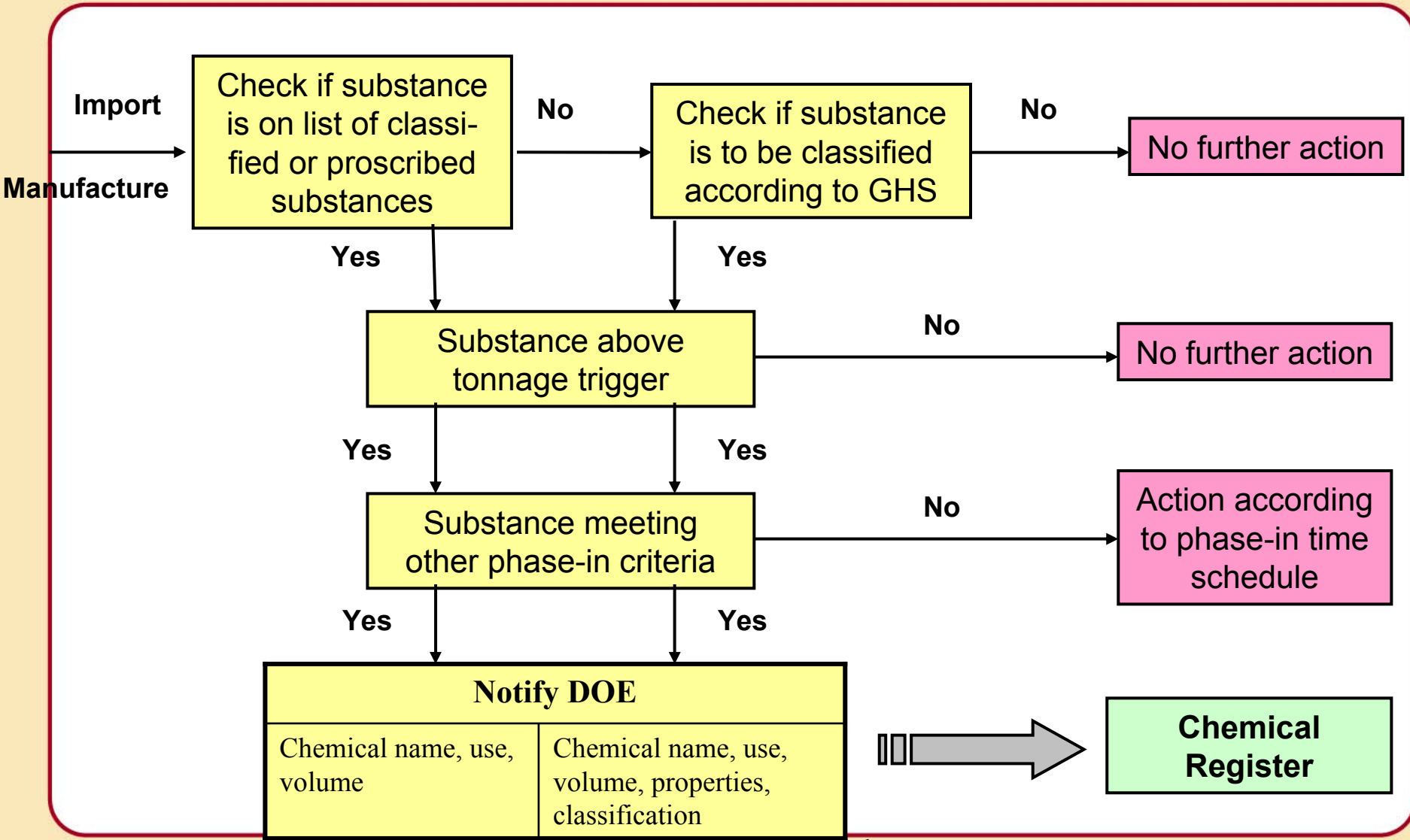
Pilot notification scheme is developed under the Malaysian - Danish Environmental Cooperation Programme

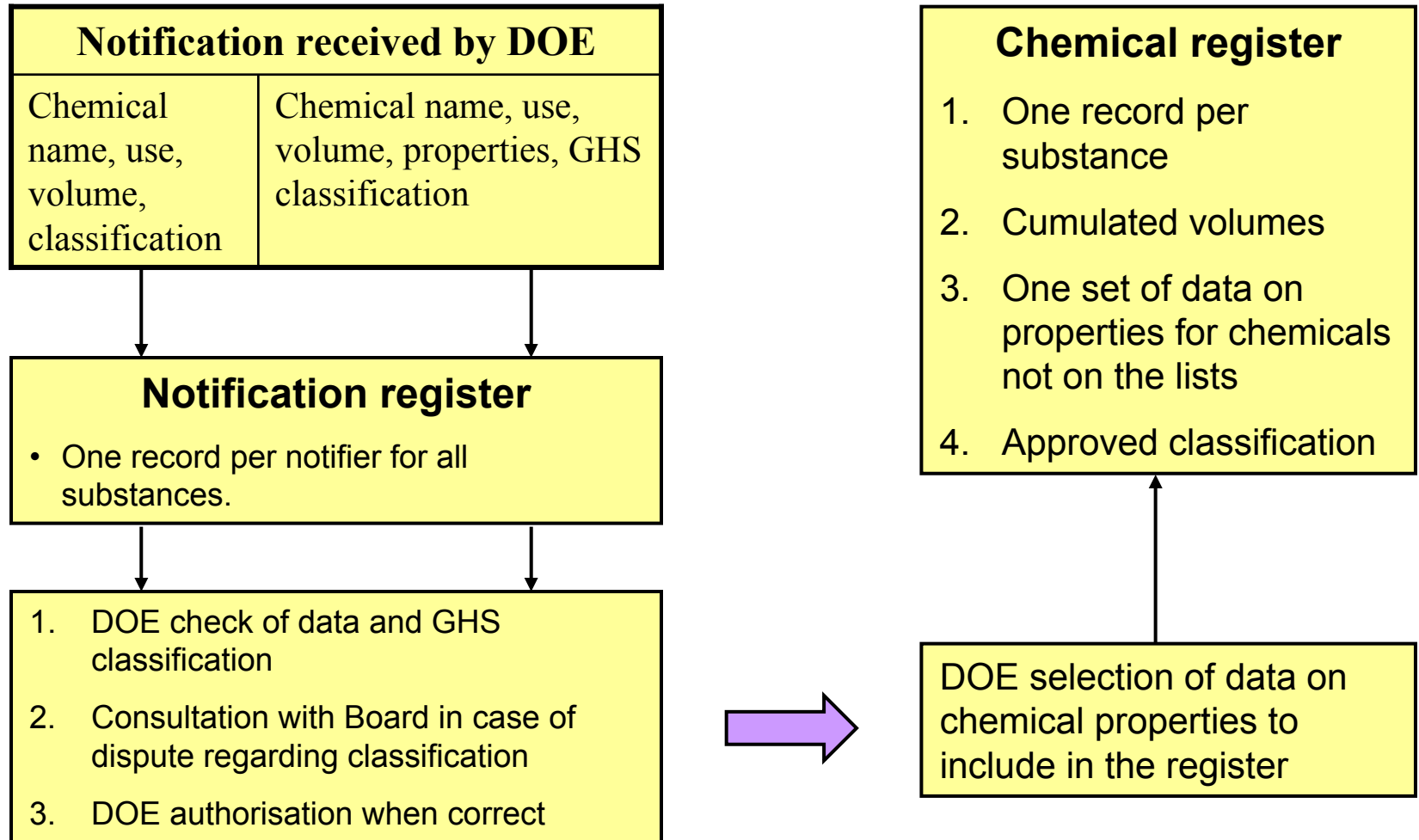
- Environmentally hazardous substances component, Feb. 2006 - August 2008
 - Funded by DANIDA and Government of Malaysia (in kind)
 - Implementing agencies: Ministry of Natural Resources and Environment (NRE) and Department of Environment (DOE)
 - Consultant: COWI A/S, Denmark
 - Three subcomponents:
 - Development of a draft strategy and action plan for the management of environmentally hazardous substances.
 - Development of a pilot notification scheme and a chemical register for environmentally hazardous substances - and a scheme for assessment of risk of chemicals to humans and the environment.
 - Capacity building among staff from NRE, DOE and other key stakeholders involved in chemicals management.

- Implementing agency: Department of Environment
- Legal mandate: Short term: The Environmental quality Act 1974, as amended; Long term: New Chemicals Act
- Scope: Environmentally hazardous substances not included in existing registration schemes, i.e. excluding pesticides and poisons, drugs and cosmetics
- Definition of EHS for the purposes of notification and registration: ‘An EHS is a substance that is assigned a hazard category under the GHS classification scheme or is present on a proscribed list of internationally recognised substances of special concern.’
- Implementation: To be phased in in stages based on tonnage levels, hazard categories and industry sector and size

Suggested outline of scheme

Notification by importers/manufacturers





- The following information submitted by the industry will be considered confidential:
 - Quantity of substance imported or manufactured by the individual notifier
 - Information about the supply chain (suppliers)
 - Industry can request that other information is kept confidential, if this can be justified
- The following information will be accessible to the public;
 - Physico-chemical, health and environmental properties of the substances
 - GHS classification
 - Use categories
 - Cumulated amounts manufactured or imported if > 2 M/I
 - Use of substances (if specialised use and ≥ 3 manufacturers/importers)
 - DOE can decide to disclose information considered confidential where urgent action is considered essential to protect human health or environment

- To provide background information for management of potentially adverse effects of chemical substances imported into or manufactured in Malaysia
- The data in the Register will be used to prioritize those substances for which further risk assessment needs to be carried out and risk management measures implemented
- Data will be available to other government agencies involved in chemical management

- Substances manufactured or imported into Malaysia or imported as part of mixtures must be notified if they meet the criteria (GHS, tonnage, etc.)
- The scheme excludes chemicals covered by other schemes, e.g. pesticides, pharmaceuticals and cosmetics
- The scheme includes other chemicals meeting criteria for GHS classification
- Limited notification for listed substances with an agreed GHS classification (or agreed EU classification)
- Data requirements for other substances corresponding to what is needed for GHS classification
- Based on existing information - No additional testing requirements, BUT chemical management measures will take level of information into account
- For priority chemicals selected for risk assessment, more information may be required from manufacturers/importers

Chemical management in Malaysia in the future

- Strategy and action plan
- Notification scheme - provides information
- Risk assessment scheme - allows prioritisation
- New Chemical Act
- New management structure to support future plans
- Better coordination among ministries involved in chemical management

- <http://www.nre.gov.my/> (Ministry of Environment and Natural Resources)
- <http://www.doe.gov.my/> (Department of Environment)
- <http://dosh.mohr.gov.my/> (Department of Occupational Safety and Health)
- <http://www.moh.gov.my/> (Ministry of Health)
- <http://www.doa.gov.my/> (Department of Agriculture)
- <http://www.miti.gov.my/> (Ministry of International Trade and Industry)
- <http://www.jpj.gov.my/> (Road Transport Department)



Department of Environment

