Peraturan-Peraturan Keselamatan dan Kesihatan Pekerjaan (Pengelasan, Pelabelan dan Helaian Data Keselamatan Bahan Kimia Berbahaya) 2013 [P.U.(A) 310/2013] Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 (CLASS Regulations)

Shabanon binti Mohd Sharif Department of Occupational Safety & Health Malaysia

# Background

- Gazetted on 11<sup>th</sup> October 2013
- Take effect on 12<sup>th</sup> October 2013
- Enacted under provision of paragraph 66 (2)(a), (c),
   (k) and (u), OSHA 1994
- Regulate the supply of hazardous chemicals for use at workplace

hereinafter refer as CLASS Regulations

# Purpose of CLASS Regulations

- Legislation framework to control supply of hazardous chemicals to place of work by prescribing requirements for classification, packaging, labelling, safety data sheets and inventory
- In line with commitment to implement the Globally Harmonized System on Chemical Classification and Labelling (GHS) to industrial workplace sector as recommended by the UN

## Arrangement of Regulations

#### Divided into 8 parts – 16 Regulations & 5 Schedules

- 1. Citation and commencement
- 2. Application

Part

Part

Part

- 3. Interpretation
- 4. Duty of principal supplier to classify chemicals as hazardous chemicals
- 5. Record of classification
- 6. Packaging requirement of hazardous chemical
- 7. Seal of packaging

## Arrangement of Regulations

- 8. Duty to label packaging of hazardous chemical
- 9. Requirement for hazard pictograms
- 10. Rules of precedence for hazard pictograms and hazard statement on label
  - 11. Dimension of label

Part

Part

Part

- 12. Affixing and tagging of label
- 13. Duty to furnish Safety Data Sheet

• 14. Inventory of hazardous chemicals

#### Arrangement of Regulations

# • 15. Confidential business information on hazardous chemicals

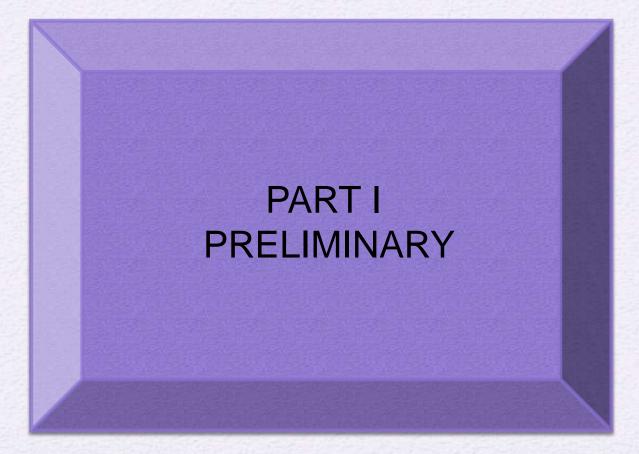
#### • 16. Revocation

Part VII

Part VIII

# List of Schedules

Schedule	Title
First	Hazard Classification, Hazard Pictogram, Signal Word and Hazard Statement
Second	Hazard Pictogram
Third	Combined Hazard Pictogram
Forth	Dimension of Label
Fifth	Cut-off Value of Concentration



## Application: Subreg. 1(1)

- CLASS Regulations apply to chemicals supplied for use at a place of work
  - Chemical:
    - Substance
    - Mixture

## Exemption: Subreg. 1(2)

- CLASS Regulations does not apply to:
  - Radioactive material Atomic Energy Licensing Act 1984
  - Scheduled waste First Schedule, Environmental Quality (Scheduled Wastes) Regulations 2005
  - Cosmetic Control of Drugs and Cosmetics Regulations 1984
  - Chemical used for R & D/ trial purposes
    - Not for sale in the market
    - Not exceeding 5 kg
    - Adequate information on the safe use of the chemical is made available

## Exemption (cont..)

#### Article

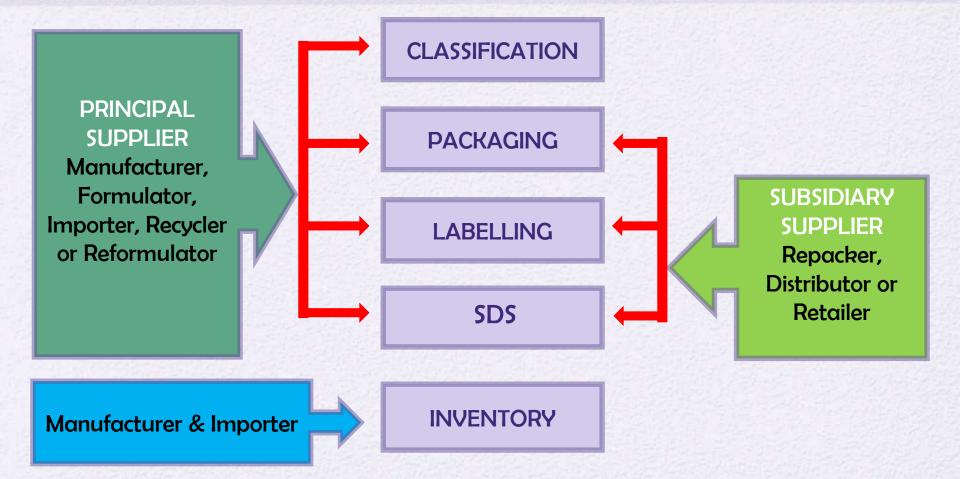
An item, other than a fluid or particle, which is:

- forms to a specific shape or design during manufacture;
- has end use function dependent in whole or in part upon its shape or design; and
- under normal conditions of use, does not release significant quantities of chemicals which pose a physical hazard or risk to health

## Exemption: Subreg. 1(3)

- Parts II (Classification), III (Packaging), IV (Labelling) and VI (Inventory) do not apply to:
  - Pesticides (Pesticides Act 1974)
  - Chemical in transit prior to export which is stored at any storage area
  - Note: For these chemicals only requirements on SDS and CBI (Part V & VII) apply

# **Responsibilities of Supplier**





# Classification: Reg. 4

- Responsibility of principal supplier
- Duty to classify chemicals in accordance with:
   Part 1 ICOP CLASS Classified chemicals list, or
   If not listed, to use methodology specified in Part 2 ICOP CLASS
- In case of inconsistency in the classification for the same chemicals:
  - DG may determine the classification for the chemical <u>Note:</u>
  - ICOP CLASS: Industry Code of Practice on Chemical Classification and Hazard Communication

#### Hazard Classification Physical Hazard

HAZARD CLASS

HAZARD CATEGORY

1. Explosives	Unstable explosive	Div 1.1	Div 1.2	Div 1.3	Div 1.4	Div 1.5	Div 1.6
2. Flammable gases	Cat 1	Cat 2					
3. Flammable aerosols	Cat 1	Cat 2					
4. Flammable liquids	Cat 1	Cat 2	Cat 3	Cat 4*			
5. Flammable solids	Cat 1	Cat 2	たた花				
6. Oxidizing gases	Cat 1		294				
7. Oxidizing liquids	Cat 1	Cat 2	Cat 3				
8. Oxidizing solids	Cat 1	Cat 2	Cat 3				
9. Gases under pressure	Compressed gas	Liquefied gas	Refrigerated gas	Dissolved gas		and -	
10. Self-reactive chemicals	Type A	Type B	Type C	Type D	Type E	Type F	Type G
11. Pyrophoric liquids	Cat 1	11-12-3					
12. Pyrophoric solids	Cat 1		1212				
13. Self-heating chemicals	Cat 1	Cat 2	TRA S				
14. Chemicals which, in contact with water, emit flammable gases	Cat 1	Cat 2	Cat 3				
15. Organic peroxides	Type A	Type B	Type C	Type D	Type E	Type F	Type G
16. Corrosive to metals	Cat 1	2.42				and a	Sec. Al



#### Hazard Classification Health Hazard

#### HAZARD CLASS

#### HAZARD CATEGORY

1. Acute toxicity (oral)	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5*
2. Acute toxicity (dermal)	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5*
3. Acute toxicity (inhalation)	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5*
4. Skin corrosion/irritation	Cat 1A/1B/1C (1		(1)	Cat 2	Cat 3*
5. Serious eye damage/eye irritation	Cat 1	Cat 2	a she h		1-11-12-12-
6. Respiratory sensitisation	Cat 1				
7. Skin sensitisation	Cat 1				
8. Germ cell mutagenicity	Cat 1A/1B (1)		Cat 2		
9. Carcinogenicity	Cat 1A/1B (1)		Cat 2		
10. Reproductive toxicity	Cat 1A/1B (1)		Cat 2	Effect on or via lactation	
11. Specific target organ toxicity – single exposure	Cat 1	Cat 2	Cat 3		
12. Specific target organ toxicity – repeated exposure	Cat 1	Cat 2			
13. Aspiration hazard	Cat 1	Cat 2*			

#### **Hazard Classification**

#### **Environmental Hazard**

#### HAZARD CLASS

HAZARD CATEGORY

1. Hazardous to aquatic environment – acute hazard	Cat 1	Cat 2*	Cat 3*	
2. Hazardous to aquatic environment – chronic hazard	l Cat 1	Cat 2	Cat 3	Cat 4
3. Hazardous to the ozone layer	Cat 1			



#### Records of classification: Reg. 5

Duty of principal supplier to:

- record the classification of chemicals
- make record available for inspection
- Format of record refer to Part 2, ICOP CLASS



## Packaging Requirement: Reg. 6

Outy of supplier to ensure packaging of hazardous chemical:

- designed and constructed that its content cannot escape
- packaging and fastening are strong and able to retain its content
- packaging and fastening materials are not susceptible to adverse attack by the content or form harmful/dangerous compound with its content
- ☑ if fitted with replaceable fastening device, the packaging can be repeatedly fastened without the contents escaping

## Seal of Packaging: Reg. 7

Packaging is initially closed with a seal in such a way that once the packaging is opened, the seal is broken and could not be repaired

Fastening







# Label Element: Subreg. 8 (1)

- Responsibility of supplier principal & subsidiary supplier
- Ensure every packaging of hazardous chemicals is labelled legibly and indelibly with:
  - ☑ Product identifier
  - ☑ Supplier identification
  - ☑ Signal word
  - Hazard statement
  - Hazard pictogram
  - Precautionary statement

# Labelling for Small Packaging: Subreg. 8(2)

 If the container ≤125 ml, supplier may label with: ☑ Product identifier Supplier identification ☑ Signal word Hazard pictogram (if applicable) "read SDS before use"

Labelling Requirements: Subreg. 8(3) & (4)

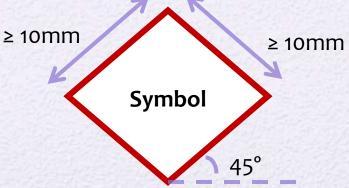
- Hazard pictogram, signal word & hazard statement for each hazard class and hazard category is specified in First Schedule
- Requirement for each label element is specified in Part 3, ICOP CLASS (Labelling)
- Information in label is supplied in national language and English language

# Hazard Statement: Subregulation 8(5), (6) & (7)

- If classified within several hazard classes, all hazard statements should appear on the label unless there is evidence of duplication/ redundancy
- Where applicable, combined hazard statement, specified in Third Schedule shall be used
- Label should be updated within 3 months if there is any changes resulting in a more severe classification

## Hazard Pictogram: subreg. 9(1)

- Consist of black symbol on white background and red border
- In diamond shape with sides tilted at 45° to horizontal
- size is 1/15th of area of surface area of a label but not less than 100mm<sup>2</sup>



## Hazard pictograms

Physica	l Hazard	Health Hazard		Environme	ntal Hazard
Description of symbol	Hazard pictogram	Description of symbol	Hazard pictogram	Description of symbol	Hazard pictogram
Flame		Skull and crossbones		Environment	
Flame over circle		Exclamation mark		Exclamation mark	(!)
Exploding bomb		Health hazard			
Gas cylinder	$\diamond$	Corrosion			
Corrosion					

Rules of precedence-Hazard Pictogram: Subreg. 10(1)

#### Physical hazard:

 If the hazard pictogram of "exploding bomb", "flame" and "flame over circle" applies, use hazard pictogram of "exploding bomb" and the use of the 'flame' and 'flame over circle' shall be optional, except where both hazard pictograms are compulsory (Self reactive chemicals type B and Organic peroxide type B) Rules of precedence-Hazard Pictogram: Subreg. 10(1) cont...

#### Health hazard:

- If hazard pictogram of "skull and crossbones" and "exclamation mark" are applicable, hazard pictogram of <u>"skull and crossbones"</u> shall be used
- If hazard pictogram of "corrosion" (skin corrosion, serious eye damage) and "exclamation mark" (skin irritation, eye irritation) are applicable, the hazard pictogram of "corrosion" shall be used;
- If hazard pictogram of "health hazard" (respiratory sensitization) and "exclamation mark" (skin sensitization, skin irritation, serious eye irritation) are applicable, hazard pictogram of "health hazard" shall be used;

Rule of Precedence-Hazard Statements: Subreg. 10(2)

- If the classification of a chemical as a hazardous chemical would cause the use of more than one hazard statement on a label, the following rules of precedence shall apply:
  - If hazard statement, H410 "Very toxic to aquatic life with long lasting effects" is assigned, the statement, H400 "Very toxic to aquatic life" shall not appear on the label;
  - The hazard statement H314 "Causes severe skin burns and eye damage" is assigned, the statement H318 "Causes serious eye damage" shall not appear on the label.

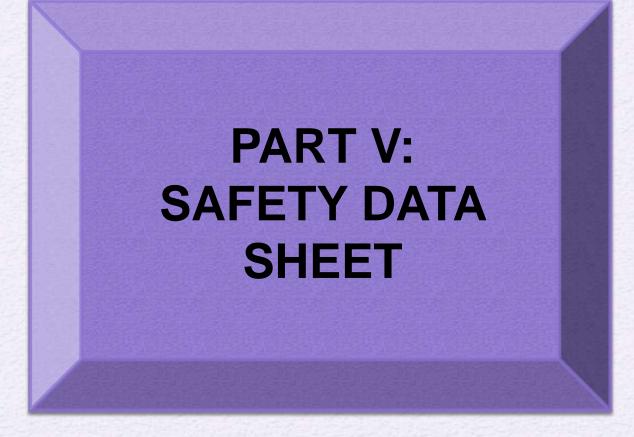
#### Dimension of label: Reg. 11

#### Fourth Schedule

Capacity of package	Dimension of label (in mm)
Not exceeding 3 litres	At least 52 x 74
Greater than 3 litres but not exceeding 50 litres	At least 74 x 105
Greater than 50 litres but not exceeding 500 litres	At least 105 x 148
Greater than 500 litres	At least 148 x 210

#### Affixing and tagging of label: Reg. 12

- The label shall be firmly affixed to one or more surfaces of the packaging so that the label can be read horizontally when the packaging is set down in its normal position
- When not practicable to label due to the nature of the container, use tagging
- If the container ≤125 ml, the label shall be affixed in such manner deemed reasonable by the supplier



#### Safety Data Sheets (SDS): Subreg. 13

- Duty of supplier to furnish updated SDS to chemical recipient for:
  - each hazardous chemical supplied
  - any mixture containing hazardous substances at concentration exceeding cut-off value specified in Fifth Schedule

### Fifth Schedule: Cut-off value

Hazard Class	Cut-o
Acute toxicity	at 1.0% or
Skin corrosion or irritation	at 1.0% or
Serious eye damage or eye irritation	at 1.0% or
Respiratory sensitization	at 0.1% or
Skin sensitization	at 0.1% or
Germ cell mutagenicity (Category 1)	at 0.1% or
Germ cell mutagenicity (Category 2)	at 1.0% or
Carcinogenic	at 0.1% or
Reproductive toxicity	at 0.1% or
Specific target organ toxicity - single exposure	at 1.0% or
Specific target organ toxicity - repeated exposure	at 1.0% or
Aspiration hazard	at 10.0% or
Hazardous to the aquatic environment	at 1.0% or

#### Cut-off Value

more (≥ 1.0%) more (≥ 1.0%) more (≥ 1.0%) more (≥ 0.1%) more (≥ 0.1%) more (≥ 0.1%) more (≥ 1.0%) more (≥ 0.1%) more (≥ 0.1%) more (≥ 1.0%) more (≥ 1.0%)

at 10.0% or more (≥ 10.0%) at 1.0% or more (≥ 1.0%)

# SDS Format: Subreg. 13(2)

- Contain information according to the following headings and order:
  - 1. Identification of the hazardous chemical and supplier
  - 2. Hazards identification
  - 3. Composition and information of ingredients of hazardous chemical
  - 4. First aid measures
  - 5. Fire fighting measures
  - 6. Accidental release measures
  - 7. Handling and storage
  - 8. Exposure controls and personal protection

## SDS Format: Subreg. 13(2) cont....

9. Physical and chemical properties 10. Stability and reactivity 11. Toxicological information 12. Ecological information 13. Disposal information 14. Transportation information 15. Regulatory information 16. Other information

## SDS Requirement: Subreg. 13(3)

- The information in SDS shall be in accordance with the minimum requirement of SDS as specified in Part 3 of the ICOP
- The SDS shall be supplied in national language and English language

# Revision of SDS: Subreg. 13(4) & (5)

### Revise SDS

- new information on the hazardous chemical
- more than 5 years have elapsed since last date of preparation/revision
   directed by officer

### Revised SDS shall be furnished as soon as practicable

# PART VI: INVENTORY OF HAZARDOUS CHEMICALS

Duty to prepare and submit inventory: Subreg. 14(1) & (2)

- Duty of importer and manufacturer
- Prepare an inventory of hazardous chemical imported/supplied
   Q quantity 1 metric tonne and above per year
   Q each calendar year
- Submit an inventory to DG not later than 31st March of the following year

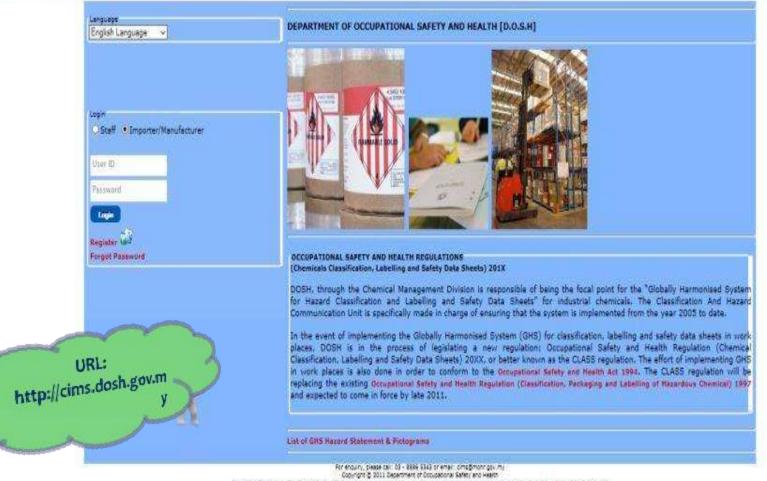
Information in the inventory: Subreg. 14(3), (4) & (5)

- Inventory contain information on:
  - ☑ Product identifier
  - ☑ Name of the hazardous chemical
  - Composition and ingredients of hazardous chemical
  - ☑ Hazard classification
  - Total quantity supplied/imported
- Name and ingredient of hazardous chemical shall include CAS no., if applicable
- Inventory should be maintained in a good condition and orderly manner

## **Online Submission: CIMS**



#### Chemicals Information Management System



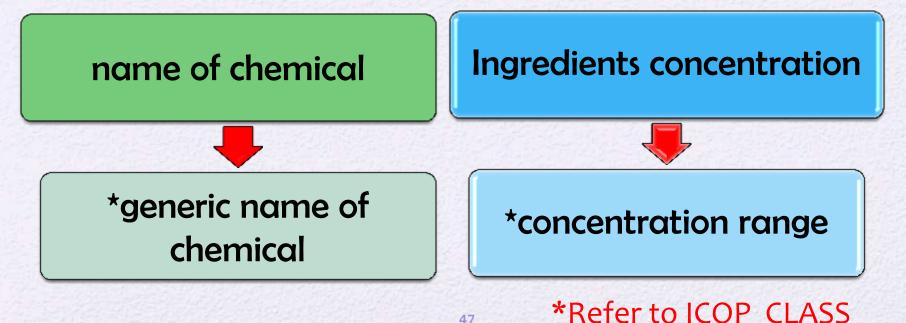
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# PART VII: CONFIDENTIAL BUSINESS INFORMATION (CBI)

# CBI on hazardous chemical: Subreg. 15(1)&(2)

#### CBI only limited to:

- name of hazardous chemical
- composition and ingredients of hazardous chemical
- The information can be omitted and replaced with:



## Disclosure of CBI: Subreg. 14(3), (4) & (5)

Information to be disclosed to:

- ☑ DG
- ☑ OHD
- Person who uses or handles hazardous chemical

provided that:

- request in writting
- information used for the protection of the safety and health of employees



# Revocation: Reg. 16

## CPL Regulations 1997 [P.U.(A) 143/1997] are revoked

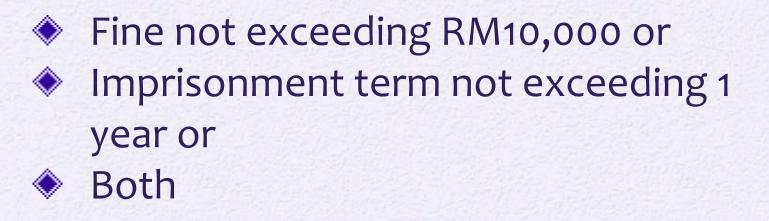
# Offences

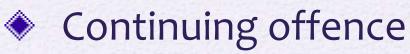
Person	Subreg.	Requirements
Principal supplier	4(1), (2), (4)	Classification
Principal supplier	5(1), 5(2)	Classification record
Supplier	6(1)	Packaging
Supplier	7(1)	Seal of packaging
Supplier	8(1), (2), (3), (4), (5), (6), (7)	Labelling of packaging
Supplier	9(1)	Requirement on hazard pictogram
Supplier	10(1), (2)	Precedence for hazard pictogram & hazard statement

# Offences (cont...)

Person	Subreg.	Requirements
Supplier	11(1)	Dimension of label
Supplier	12(1), (2), (3)	Affixing & tagging of label
Supplier	13(1)	Furnishing SDS
Supplier	13 (2), (3)	Content of SDS
Supplier	13 (4), (5)	Revision of SDS
Importer/ Manufacturer	14(1), (2), (3), (4)	Preparation, submission, content and maintenance of inventory
Person	15(6)	Misuse of CBI

# Penalty

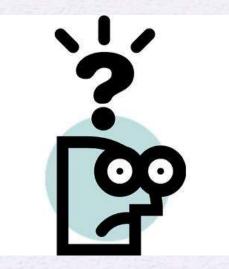




 Fine not exceeding RM1,000 for every day or part of the day during continuing offence after conviction

## **Reference Documents**

- Industry Code of Practice on Chemical Classification and Hazard Communication – ICOP CLASS
- Globally Harmonized System of Classification and Labelling of Chemicals (Purple book- 3<sup>rd</sup> Revised Edition 2009)
- UN Recommendations on the Transport of Dangerous Goods- Model Regulations (Orange Book-16<sup>th</sup> Revision 2009)



# THANK YOU FOR YOUR ATTENTION, ANY QUESTION?