



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

# PREPARATION OF A CHEMICAL REGISTER

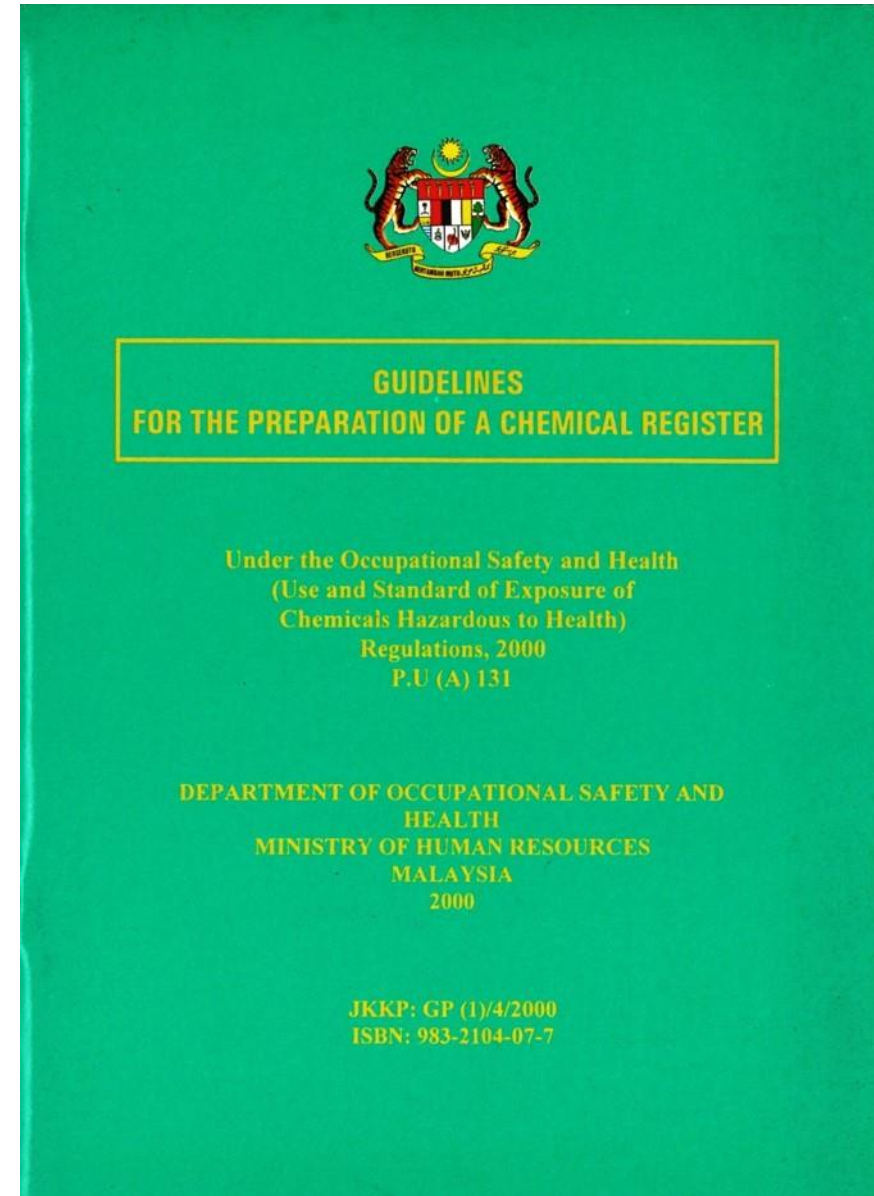
**How to fill in the CR?**



Presented by :  
**Nursyazwani Aznan**  
Science Officer  
Chemical Management Unit  
Uni. Laboratory Management Unit

# REFERENCE

## Guidelines for the Preparation of a Chemical Register



# DEFINITION

**“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 or II;
- (b) possesses any of the properties categorised in Part B of Schedule I of the Classification, Labeling and Safety Data Sheet (CLASS 2013) Regulation.
- (c) comes within the definition of "pesticide" under the Pesticides Act 1974 [Act 149]; or
- (d) is listed in the First Schedule of the Environmental Quality (Schedule Wastes) Regulations 1989 [P. U. (A) 139/89];



Reference :

*Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.*

# CHEMICAL REGISTER =

List of chemicals that are hazardous to health.



## Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive toxicity
- Respiratory sensitizer
- Target organ toxicity
- Aspiration toxicity



## Corrosion

- Skin corrosion/burns
- Eye damage
- Corrosive to metals



## Exclamation Mark

- Irritant (eye & skin)
- Skin sensitizer
- Acute toxicity
- Narcotic effects
- Respiratory tract irritant



## Skull & Crossbones

- Acute toxicity (fatal or toxic)



# CHEMICAL REGISTER FORMAT

## Section A

- Company information



## Section B

- List of Chemicals  
Hazardous to Health




## Section C

- Name of person who prepared  
or reviewed



# SECTION A

|   |   |   |
|---|---|---|
|  <b>UTM</b><br>UNIVERSITI TEKNOLOGI MALAYSIA | UNIVERSITI TEKNOLOGI MALAYSIA<br>UTM-OSHE | UTMOSHE-P0810-F01-CRF                             |
|   | REGISTER OF CHEMICALS HAZARDOUS TO HEALTH | Page :<br>Revision : 0<br>Date : 9 September 2020 |

### Section A: COMPANY INFORMATION

|              |  |   |                                       |
|--------------|--|---|---------------------------------------|
| Name         | : C H E M I C A L M A N A G E M E N T<br>U N I T ( C M U ) | DOSH Registration No :  | J H / 1 4 / 2 3 / 6 3 3 4             |
| Address      | : 0 1 - 6 6 - 0 1 , B L O K T 0 3 U I R L ,<br>U T M       | (Refer to Appendix 4 for Code of Sector & Appendix 5 for Class of Industry) |                                       |
| City         | : S K U D A I  | Code of Sector :  | 2 3                                   |
| State        | : J O H O R B H A R U                                      | Class of Industry :   | 9 3 1 0 0                             |
| Telephone no | : 0 7 - 5 5 5 5 7 1 4                                      | Company Activity (Please enter (/) in the appropriate box :                 |                                       |
| Email        | : n o r l a i l i a h m a d @ u t m . m y                  | Manufacturer  | : <input type="checkbox"/>            |
|              |  | Distributor   | : <input checked="" type="checkbox"/> |
|              |  | Formulator  | : <input type="checkbox"/>            |
|              |  | Importer  | : <input type="checkbox"/>            |
|              |  | End-user  | : <input type="checkbox"/>            |

Location name

Detail address of the chemical stored/used

Phone no of the person in charge/location phone number

Email of person in charge

UTM Registration No.

UTM code (Public services)

UTM Class of industry : Education services

Activity on your location

# SECTION B

No. of hazardous chemical in the location

No. of workers in the location

Location name

Process operation

Product name or registered trade name

Chemical name stated in SDS

Physical form of chemical

- Aerosol
- Fibre
- Gas
- Liquid
- Granule
- Paste
- Pellet
- Powder
- Slurry
- Solid

No. of workers exposed

Quantity used per month/year

Type of use

- By-product
- Intermediate product
- Product
- Raw material
- Stored
- Waste
- Cleaning
- Degreasing

PPE

- Protective clothing
- Eye protection
- Dust mask
- Cartridge respirator
- Others

Engineering Control

- Enclosure
- Isolation
- Local Exhaust Ventilation
- Water Spray
- General Ventilation

| SECTION B : LIST OF CHEMICALS HAZARDOUS TO HEALTH |                  |                                  |                      |  |   |                   |                           |  |                            |  |  |             |   |
|---|------------------|----------------------------------|----------------------|--|---|-------------------|---------------------------|--|----------------------------|--|--|-------------|---|
| Location : CMU STORE 1                            |                  |                                  |                      | No. of Hazardous Chemical : 8                  |   |                   |                           | No. of Workers : Male : 2<br>Female: 0 |                            |  |  |             |   |
| Process Operation : STORAGE                       |                  |                                  |                      |  |   |                   |                           |  |                            |  |  |             |   |
| Product Name                                      | Name of Chemical | Physical Form of Chemical        | No of Worker Exposed | Type of Control Measures                       |   | Usage Of Chemical |                           | CAS No                                 | Name of Active Ingredients | Comply with Classification, Labeling and Safety Data Sheet (CLASS 2013) Regulation |  |             | Name, Address of Supplier and Contact Number (Tel.No/email)   |
|   |                  |                                  |                      | Engineering control                            | PPE   | Type              | Quantity (Monthly/yearly) |  |                            | SDS (Y/N)  | Class  | Label (Y/N) |   |
| 1   | Sodium Silicate  | Sodium Silicate                  | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Stored            | 3 KG                      | 54-21-7                                | Sodium Silicate            | Y  | Skin Irrit 1 H314, Eye Irrit 1 H318, STOT SE 3 H335          | Y           | TDS Supply & Services<br>No 38, Jalan Merah Perdana 8/1, Taman Merah Perdana, 81750 Masai, Johor.<br>07-5846992 |
| 2   | Ethylene Glycol  | Ethylene Glycol / 1,2-Ethanediol | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Stored            | 45 L                      | 107-21-1                               | Ethylene Glycol            | Y  | Acute Tox. (Oral) (4) H302, STOT RE (2) H373                 | Y           | Mediventure Sdn Bhd<br>99 Jalan JB 9/4, Bandar Bukit Puchong, 47120 Puchong, Selangor.<br>03-54896632           |
| 3   | Ammonia gas      | Ammonia gas                      | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Stored            | 10.7m <sup>3</sup>        | 7664-41-7                              | Ammonia                    | Y  | Acute Tox. 3 (inh) H331, Skin Corr. 1B H332, Eye Dam. 1 H314 | Y           | Linde Gas Products Malaysia Sdn Bhd.<br>P.O Box 10633, GPO Kuala Lumpur, 50670 WPKL.<br>013-9882651             |

# SECTION B (cont)...

CAS Number  
(refer SDS)

Name of active  
ingredient (refer SDS)

| SECTION B : LIST OF CHEMICALS HAZARDOUS TO HEALTH |                                  |                           |                      |  |   |                   |                           |  |                            |  |  |             |   |
|---|----------------------------------|---------------------------|----------------------|--|---|-------------------|---------------------------|--|----------------------------|--|--|-------------|---|
| Location : CMU STORE 1                            |                                  |                           |                      | No. of Hazardous Chemical : 8                  |   |                   |                           | No. of Workers : Male : 2<br>Female: 0 |                            |  |  |             |   |
| Process Operation : STORAGE                       |                                  |                           |                      |  |   |                   |                           |  |                            |  |  |             |   |
| Product Name                                      | Name of Chemical                 | Physical Form of Chemical | No of Worker Exposed | Type of Control Measures                       |   | Usage Of Chemical |                           | CAS No                                 | Name of Active Ingredients | Comply with Classification, Labeling and Safety Data Sheet (CLASS 2013) Regulation |  |             | Name, Address of Supplier and Contact Number (Tel.No/email)   |
|   |                                  |                           |                      | Engineering control                            | PPE   | Type              | Quantity (Monthly/yearly) |  |                            | SDS (Y/N)  | Class  | Label (Y/N) |   |
| 1 Sodium Silicate                                 | Sodium Silicate                  | Solid                     | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Stored            | 3 KG                      | 54-21-7                                | Sodium Silicate            | Y  | Skin Irrit 1 H314, Eye Irrit 1 H318, STOT SE 3 H335          | Y           | TDS Supply & Services<br>No 38, Jalan Merah Perdana 8/1, Taman Merah Perdana, 81750 Masai, Johor.<br>07-5846992 |
| 2 Ethylene Glycol                                 | Ethylene Glycol / 1,2-Ethanediol | Liquid                    | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Stored            | 45 L                      | 107-21-1                               | Ethylene Glycol            | Y  | Acute Tox. (Oral) (4) H302, STOT RE (2) H373                 | Y           | Mediventure Sdn Bhd<br>99 Jalan JB 9/4, Bandar Bukit Puchong, 47120 Puchong, Selangor.<br>03-54896632           |
| 3 Ammonia gas                                     | Ammonia gas                      | Gas                       | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Stored            | 10.7m <sup>3</sup>        | 7664-41-7                              | Ammonia                    | Y  | Acute Tox. 3 (inh) H331, Skin Corr. 1B H332, Eye Dam. 1 H314 | Y           | Linde Gas Products Malaysia Sdn Bhd.<br>P.O Box 10633, GPO Kuala Lumpur, 50670 WPKL.<br>013-9882651             |

SDS comply with Class Reg. 2013?  
Answer Yes or No

State the classification of chemical under Class Reg. 2013

Label/Relabel of chemical follow Class Reg. 2013?  
Answer Yes or No

Supplier details  
- Name  
- Address  
- Contact number



## SECTION B (cont)....

## State the **classification** of chemical under Class Reg. 2013

| Hazard Class                 | Hazard Category       | H-Code        | Classification Code                             | Hazard Class                         | Hazard Category | H-Code  | Classification Code                                | Hazard Class                                     | Hazard Category   | H-Code   | Classification Code  |                      |
|------------------------------|-----------------------|---------------|---|--------------------------------------|-----------------|---------|--|--|---|--|----------------------|----------------------|
| Acute toxicity (oral)        | Category 1            |               | Acute Tox. 1 (oral)                             | Serious eye damage or eye irritation | Category 1      | H318    | Eye Dam. 1   | Reproductive toxicity                            | Category 1A/1B (1)  | H360f  | Repr. 1A<br>Repr. 1B |                      |
|                              | Category 2            | H300/<br>H301 | Acute Tox. 2 (oral)                             |                                      | Category 2      | H319    | Eye Irrit. 2                                       |  | Category 2  | H361f  | Repr. 2              |                      |
|                              | Category 3            | H301          | Acute Tox. 3 (oral)                             | Effects on or via lactation          |                 |         |  |  |   | Lact.  |                      |                      |
|                              | Category 4            | H302          | Acute Tox. 4 (oral)                             |                                      |                 |         |  |  |   |  |                      |                      |
| Acute toxicity (dermal)      | Category 1            | H310          | Acute Tox. 1 (dermal)                           | Respiratory sensitization            | Category 1      | H334    | Resp. Sens. 1                                      | Specific target organ toxicity – single exposure | Category 1  | H370 (respiratory) (inh)<br>H370 (CNS, visual organs)<br>H370 (nervous system) | STOT SE 1            |                      |
|                              | Category 2            | H310          | Acute Tox. 2 (dermal)                           | Skin sensitization                   | Category 1      | H317    | Skin Sens. 1                                       |  |   |  |                      | Category 2           |
|                              | Category 3            | H311          | Acute Tox. 3 (dermal)                           |                                      |                 |         |  |  | Germ cell mutagenicity  | Category 1A/1B (1)   | H340                 | Muta. 1A<br>Muta. 1B |
|                              | Category 4            | H312          | Acute Tox. 4 (dermal)                           |                                      |                 |         |  |  |   |  |                      |                      |
| Acute toxicity (inhalation)  | Category 1            | H330          | Acute Tox. 1 (inh)                              | Category 2                           | H341            | Muta. 2 | Specific target organ toxicity – repeated exposure | Category 1                                       | H372 (resp. system)<br>H372(a)<br>H372 (CNS, hematopoietic system)<br>H372 (resp. system, kidney, bone) | STOT RE 1  |                      |                      |
|                              | Category 2            | H330          | Acute Tox. 2 (inh)                              |                                      |                 |         |  |  |   |  | Category 1A/1B (1)   | H350<br>H350i        |
|                              | Category 3            | H331          | Acute Tox. 3 (inh)                              | Carcinogenicity                      | Category 2      | H351    |  | Carc. 2  | Aspiration hazard   | Category 1   |                      |                      |
|                              | Category 4            | H332          | Acute Tox. 4 (inh)                              |                                      |                 |         |  |  |   |  |                      |                      |
| Skin corrosion or irritation | Category 1A/1B/1C (1) | H314          | Skin Corr. 1A<br>Skin Corr. 1B<br>Skin Corr. 1C |                                      |                 |         |  |  |   |  |                      |                      |
|                              | Category 2            | H315          | Skin Irrit. 2                                   |                                      |                 |         |  |  |   |  |                      |                      |

# SECTION B (cont)...

|   | Product Name                  | Name of Chemical              | Physical Form of Chemical | No of Worker Exposed | Type of Control Measures                       |   | Usage of Chemical |                           | CAS No  | Name of Active Ingredients | Comply with Environmental Quality (Scheduled Wastes) Regulation 2005 |            |             | Name, Address of Waste Generator and Contact Number (Tel.No/email) |
|---|-------------------------------|-------------------------------|---------------------------|----------------------|--|---|-------------------|---------------------------|---------|----------------------------|--|------------|-------------|--|
|   |                               |                               |                           |                      | Engineering control                            | PPE   | Type              | Quantity (Monthly/yearly) |         |                            | Waste Card (Y/N)   | Waste Code | Label (Y/N) |  |
| 4 | Etnanol                       | Ethanol                       | Liquid                    | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Waste             | 0.2L                      | 64-17-5 | Ethanol                    | N  | SW430      | Y           | Norlali Ahmad<br>CMU Store 1, T03 UIRL UTM.<br>015-8446530         |
| 5 | Non halogenated waste solvent | Non halogenated waste solvent | Liquid                    | 2                    | Local Exhaust Ventilation, General Ventilation | Protective Clothing, Eye Protection, Dust Mask, Chemical Cartridge Respirator, Others | Waste             | 3L                        | -       | Acetone<br>Cyclohexane     | Y  | SW322      | Y           | Norlali Ahmad<br>CMU Store 1, T03 UIRL UTM.<br>015-8446531         |

Waste name or registered trade name

Waste name

Waste card available?  
Answer Yes or No

State the Waste Code  
(Refer Schedule I, EQ (SW) Reg. 2005.

Label of waste packaging comply with Schedule III, EQ (SW) Reg. 2005?  
Answer Yes or No

Name of active ingredient or mixture of waste

Amount of waste generated per month/year

Waste generator details  
- Name  
- Address  
- Contact number

# SECTION C

Prepared by : Staff who prepare the CR

Reviewed by : Knowledgeable person on chemical safety

| SECTION C : NAME OF PERSON WHO PREPARED OR REVIEWED |                                |
|---|--------------------------------|
| PREPARED BY :                                       | REVIEWED BY :                  |
| Name : MOHD HAZIQ BIN MAHMAD TOHA                   | Name : NURSYAZWANI BINTI AZNAN |
| Title : LABORATORY ASSISTANCE                       | Title : SCIENCE OFFICER        |
| Date : 1/1/2021                                     | Date : 1/1/2021                |
| _____ (Signature)                                   | _____ (Signature)              |



# Thank You

<https://www.utm.my/cmc/>