



**PUSAT PENGURUSAN MAKMAL
UNIVERSITI (PPMU)**

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UNIT PENGURUSAN BAHAN KIMIA (CMU)

GUIDELINES FOR GAS CYLINDER SAFETY SIGNAGE

1.0 INTRODUCTION

CMU UTM is committed to comply with the rules and regulations enforced by the authorities. Other than procurement process of hazardous substances, safety signage at the storage area is the most important reminder to obey the regulations before handling the chemical or gas cylinders. All UTM staff and students should adhere to the compulsory requirement before handling any of the hazardous chemical or gas cylinder.

2.0 PURPOSE

To identify and warn workers who may be exposed to hazards in the workplace. Safety signs can assist in the communication of important instructions, reinforce safety messages and provide instruction for emergency situations. Workplaces have an obligation under health & safety legislation to use signs where practicable to highlight a serious hazard or risk in the workplace. These agencies include Department of Occupational Safety and Health (DOSH), Department of Environmental (DOE), Energy Commission and Ministry of Health Malaysia.

3.0 RESPONSIBILITY AND ACCOUNTABILITY

Storage area owner is responsible to display the safety signage as a form of communication to other people to prevent from any accident/incident that may occur. All parties involved in the chemical supply, acceptance and/or use of the goods including staff, students and other external parties, are responsible in ensuring the instructions of handling of chemical or gas are followed according to the signage displayed at the storage area.

4.0 REQUIREMENT

4.1 SIGNAGE COLOUR

The main health and safety signs boil down to four different types. Each type follows a necessary course of action that needs to be taken, and corresponds to the colour below:

a) Red

Commonly used for fire safety, emphasise unsafe areas, forbidden action, or designate areas for emergency devices such as fire-fighting equipment. Red is also used to prohibit behaviours that are likely to cause risk to health and safety, such as smoking.


b) Yellow

Commonly used to notify workers that they need to take caution or be aware of certain hazards, such as high voltage or slippery surfaces, in order to reduce the level of threat posed to them.

c) Blue

Mandatory safety signs to indicate particular actions or behaviours that need to be taken, such as wearing personal protective equipment, in order to safely navigate an area.

d) Green

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Safe condition signs, which are commonly used to designate the location of emergency facilities (such as eyewash stations or showers), equipment (such as first aid kits), evacuation routes, fire exits, escape ladders, or assemble points.

4.2 REGULATORY SIGNAGE

Safety signage containing instructions with which failure to comply constitutes either an offence at law, or a breach of safety procedures or other directions, depending on which kind of control has been imposed at the work site or workplace. Regulatory signage is subdivided as follows:

a) Prohibition Signs

Prohibition signs indicate an action or behaviour that is not permitted. The sign is shown as a red circle with a red slash over a black icon of the action.

b) Mandatory Signs

Mandatory signs provide specific instruction that must be carried out. The icons are in white reversed out of a blue circle.

c) Warning Signs

Warning signs warn of hazards or conditions that are not likely life threatening. These safety signs consist of black triangle and icon on a yellow background with supporting black text if required.

d) Fire Safety Signs

Fire safety signs advise the location of fire alarms and firefighting equipment. They contain white symbols and/or text on a red background.

e) Emergency Signs

Emergency signs indicate the location of, or directions to emergency facilities. These signs feature a white symbol and/or text on a green background.

f) Danger Signs

Danger signs communicate a hazard, condition or situation that is likely to be life threatening. The sign is shown as word danger on a red oval over a black rectangle. Text is black on a white background.

5.0 PROCEDURE

1. Download the signage power point file from CMU website (<https://www.utm.my/cmc/>).
2. Open the power point file and fill in the blank at the “*Authorised Person*” box by filling in the name of responsible staff and contact number.
3. Save the file in PDF format.
4. Printing

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- For gas house purpose, print the first page of the file with an A3 size and the rest of the pages with an A4 size
- For the cylinder that store in the laboratory with a small space, the signage can be printed with an A4 size but it is more preferable with an A3 size.

5. Laminate all the printed signage, then displayed together with the handling of gas guidelines near the cylinder gas storage area. Picture 1-5 shows how to use and display the safety signage and labelling.



Picture 1: Safety signage for gas house



Picture 2: Safety signage at the laboratory

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Picture 3: Label for empty cylinder



Picture 4: Label for full gas cylinder and ready to use

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Picture 5: Label for gas under maintenance

6.0 REFERENCES

- Occupational Safety and Health (Use and Standard of Exposure Chemical Hazardous to Health) Regulations 2000 (USECHH Regulations).
- Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 (CLASS Regulations)
- Occupations Safety and Health Act 1994 (Act 514)
- Factories and Machinery Act 1967 (Act 139)
- Safety Guidelines for Gas Cylinders (Construction, Operation and Maintenance) 2020, DOSH

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7.0 GENERAL/ AMENDMENT

Issue No.	Review No.	Amendment Details	Effective Date
1	0/2023	New format from revision of Guidelines For Gas Cylinder Safety Signage (CMC/SOP/11)	01/12/2023