

Chemicals are widely used in factories and other workplaces. However, chemicals can endanger our health, threaten our life and harm our environment if they are not properly handled or used. Therefore, it is important to manage the usage of chemicals with extra caution to safeguard against their hazards.

What are Hazardous Chemicals?

The hazards of chemicals can be classified as:

1. Physical hazard, e.g. flammable, explosive and reactive
2. Health hazard, e.g. toxic, corrosive, narcotic, irritating and carcinogenic
3. Environment hazard, e.g. aquatic toxicity, ozone depleting



How to manage Hazardous Chemicals?

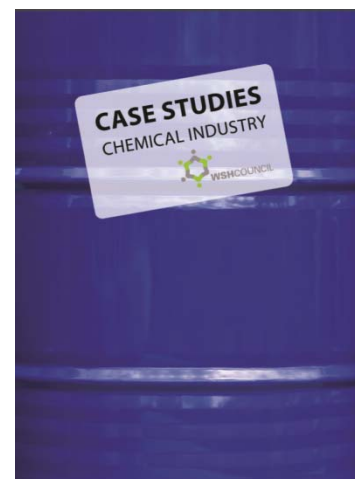
In order to eliminate or minimise the risk posed by hazardous chemicals, an effective Hazardous Chemicals Management Programme need to be established. It should include all stages in the life cycle of chemicals - manufacturing, transportation, storage, and disposal.

The most useful document required when handling chemicals is the Safety Data Sheet (SDS). It contains critical information like physical and chemical properties and hazards of the chemicals. SDS also includes the control measures and emergency response, first aid measures, etc. With SDS, one would be able to develop safe work procedures for receipt, storage, handling, safe use and disposal of the hazardous chemical.

A few important points to note for an effective programme:

1. Implement an inventory control system to keep track of the movement of chemicals.
2. Draw up an incompatibility chart to ensure that chemicals with incompatible properties are kept apart.
3. Provide hazard labelling and signage at places of storage and usage as warning.
4. Train all personnel who may come into contact with the chemical so that they can protect themselves adequately.
5. Have an emergency response programme with relevant equipment and trained personnel.

There are several lessons that you can learn from the case studies compiled by WSHC. You can download them at WSHC website: <https://www.wshc.sg/>



Process Safety is Everybody's Responsibility!

An initiative of the Process & Engineering Committee

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