

# € TRAINING

Safety and Hazards in Chemical Factories



# Safety and Hazards in Chemical Factories

## Introduction:

This five-day course provides detailed aspects regarding the purchase, transportation, storage and handling the chemicals and in particular hazardous chemicals. Using a mixture of formal presentations and group exercises, the course will enable the delegate to become familiar with the properties of hazardous chemicals and how both to control them safely and to obtain the information needed to provide a safe system of work.

The problem associated with accidental chemical releases and the action to be taken are covered and to provide a complete picture, the problem associated with waste disposal.

Procedures for the assessment of the risk during the storage and handling and use are covered so that formal Risk Assessment can be carried out on existing installations and prior to the introduction of a new chemical. This will enable the delegate to define the precautions, which should be taken.

Finally, the delegate will be given guidance on the development of procedures to ensure safe operating practices.

## Course Objectives:

At the end of this course the participants will be able to:

- Apply the learnt knowledge on storage and handling of chemical and toxic materials.
- Carryout transportation of hazardous substances
- Handle and assess the risk prior to working with hazardous substances
- Explain procedures of dealing with spills and contamination of persons and property
- Appreciate the needs for emergency response plans
- Recognize the production of a hazardous substance Procedure Manual
- Perform safe disposal of hazardous waste and by products
- Use personal protective equipment for working with hazardous substances
- Implement purchasing controls for ordering hazardous materials and identify storage facilities and security considerations.

## Targeted Audience:

This course is intended for all HSE supervisors in warehousing inventory management and logistics operations. It will also be of benefit to managers in these operations.

## Course Outlines:

### Unit 1:

- The role of the supervisor and manager in preventing chemical incidents

- Types of hazardous substances
  - Understanding of key properties and principles of classification
- How international regulations identify hazardous substances

## Unit 2:

- Hazardous data sheets
  - Information required to complete or interpret hazard data sheets
- Packaging hazardous substances for carriage
- Transportation of hazardous substances
  - Key international regulations
- The role of the purchasing department in ensuring safe handling

## Unit 3:

- Transport of hazardous substances
- Documentation needs
- Safety equipment
- Operational controls/limits
- Storage of hazardous substances
- Bulk storage
- Packaged goods storage
- Chemical warehouses
  - Design and operational features

## Unit 4:

- PPE assessments selection and use
- Risk assessment as applied to transport and storage of hazardous substances
- Safe handling, control and measurement of exposure to hazardous substances

## Unit 5:

- The problems associated with the disposal of chemical waste
- Special requirement relating to hazardous work
- Hazardous work documentation
- Key procedures
  - A suggest approved to the development of procedures
- Training needs assessment for the distribution and storage process