€TRAINING

Safety in Factorys And Chemical Laboratories

Safety in Factorys And Chemical Laboratories

Introduction:

This course is designed to teach general practices that should be followed in the laboratory such as providing safety contracts/ SOPs, identifying medical and allergy problems, posting and modeling all safety procedures, knowing district and state policies concerning reporting injuries, being familiar with fire regulations, posting and discussing emergency escapes, and providing personal protective equipment for all occupants and personnel.

Course Objectives:

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

- Know the safety precautions of experiments that need to be heated.
- Know safety precautions when handling glassware.
- Know the safety precautions when dealing with compressed gas cylinders.
- Know the safety precautions after completing work in the laboratory.
- Know safety precautions when storing and keeping chemicals.
- Know the types of fire and how to extinguish it.
- Know first aid methods.

Targeted Audience:

- Testing laboratory personnel
- Research laboratory personnel
- Chemistry laboratory personnel
- Science laboratory personnel
- Quality control professionals
- Quality managers
- Compliance personnel
- Quality auditors

Course Outlines:

Unit 1: Public Safety Precautions in Chemical Laboratories:

- Basic Specification of Chemical Laboratories.
- The basic equipment to be provided in the laboratory.
- Personal protection tools.
- Precautions to be followed for the safety of traded chemicals.
- Safety papers for chemicals.
- Directives and guidelines for public safety.

Unit 2: Risks and Injuries in Chemical Laboratories:

- Types of risk in chemical laboratories.
- Risk factors in chemical laboratories.
- Types of injuries.

- Symptoms of exposure to chemicals.
- Methods of entering chemicals into the body.
- Different damages of chemicals.

Unit 3: Special Precautions Experiments That Need To Be Heated:

- Dealing with the hot laboratory microscopy.
- Heating non-flammable liquids.
- Boiling.
- Methods of heating organic liquids.

Unit 4: Safety Precautions When Dealing With Glassware:

- Dealing with glassware keeping solid and liquid chemicals.
- Safety precautions when cutting glass tubes.
- Safety precautions when inserting glass tubes into the holes of the stoppers.
- Safety precautions when removing glass tubes from the plugs.

Unit 5: Safety Precautions When Dealing With Compressed Gas Cylinders:

- Uses of a gas cylinder.
- Risks resulting from the use of compressed gas cylinders.
- The main causes of accidents when dealing with compressed gas cylinders.
- Ways to reduce risk.
- Dealing with the cylinders of the leak.

Unit 6: Safety Precautions After Completion of The Work in The Laboratory:

- Safety precautions when disposing of excess chemical residues.
- Safety precautions after completion of work.

Unit 7: Safety Precautions When Storing And Keeping Chemicals:

- Storage of flammable chemicals.
- Storage of explosive chemicals.
- Storage of oxidizing agents.
- Storage of food items.
- Storage of compressed gases.
- Storage of moisture-sensitive materials.
- Materials are dissonant.

Unit 7: Types of Fires And Means of Extinguishing Them:

- Properties of chemicals.
- Fire classification.
- Firefighting equipment.

Unit 8: First Aid:

- Methods of first aid for burns.
- Methods of first aid for poisoning.