TRAINING PROGRAM

Safe Laboratory Chemical Handling For Oil & Gas Companies

Introduction:

This training program complies with OSHA Laboratory Standard Training standards and addresses the three major areas needed to comply with the OSHA standard: general information, commonly used chemicals, and safe chemical handling. This course provides the most cost-effective safety and regulatory compliance training available today. The course is divided into a number of logical sections so information is easily understood and retained. Perhaps the most obvious danger in the laboratory is from the various chemicals which are used. The operator can minimize the danger resulting from these chemicals by handling and storing chemicals properly. The first step in proper handling of chemicals is to be familiar with each chemical's properties and hazards. Material Safety Data Sheets, also known as MSDS's, provide this information.

Who Should Attend?

Laboratory technicians & supervisors, Chemists and all laboratory personnel, Chemical Engineers, Laboratory Analysts

Course Objectives:

By the end of this course delegates will be able to:

- Identify the issues covered in OSHAs Laboratory Standard.
- Discuss the contents of a Chemical Hygiene Plan.
- Describe procedures and equipment used to protect employees from hazardous chemicals in a Laboratory.
- First Aid procedures used in different types of hazardous chemical exposure incidents
- Cover the safe handling of chemicals in laboratories
- Know and understand the hazards of the chemical as stated in the MSDS and other references.
- Use protection safety equipment to reduce potential exposure, i.e. gloves, respirators, fume hood, etc.
- Know the locations for all personal safety and emergency equipment, eyewash, shower, fire extinguisher and spill control materials.
- Know how to properly store all chemicals in their compatible chemical families.
- Know the Flinn Chemical Catalog Reference Manual.
- Know the proper transportation and disposal procedures for chemicals.
- Know appropriate emergency procedures, waste disposal, spill clean up, evacuation routes, and fire emergency notification.
- Know and understand the personal hygiene practices outlined in the Chemical Hygiene Plan.

Course Outline:

- Laboratory chemical handling overview
- The Chemical Hygiene Plan
- Chemical Hazard Concepts
- The Material Safety Data Sheet (MSDS)
- Common Chemical Families
- Characteristics and Potential Effects of Chemicals
- Container Labeling

- Clean-Up Procedures
- Procedures used to protect employees from hazardous chemicals in a Laboratory.
- First Aid procedures used in different types of hazardous chemical exposure incidents
- Safe handling of chemicals in laboratories
- WHMIS
- Hazard recognition and control
- Waste management and emergency response
- Decontamination procedures and how to safely extinguish a fire
- Laboratory Fume Hoods
- Ventilation recommendations
- Personal Protective Equipment (PPE)
- Eye Protection
- Use of Respirators
- Protection of Skin and Body
- Chemical protective clothing
- Chemical Storage
- Proper labeling
- Flinnâ€™s List of the 40 Devils
- Chemical Safety Table
- First aid and safety regulations
- Standard Operating Procedures
- Spill and Accident Procedures
- Flammable Chemicals Handling Instructions
- Corrosive Materials Handling Instructions
- Compressed Gas Handling Instructions
- Procedure Specific Safety Rules and Guidelines (for extremely hazardous chemicals)
- Spill and leak procedures
- Legislation and duties of employees
- Safety, Health & Welfare at Work
- Routes of entry and risks to health
- Types of Hazardous Substances
- Substances in use at participants' workplaces
- Requirements for Labels and Signs
- Exposure Control
- Risk assessment of handling activities and identification of the most hazardous.
- Safe Chemical Handling Description
- Rules For Safe Chemical Handling

- Health Hazards Of Chemicals
- Physical Properties Of Chemicals
- General Concepts Of Toxicology
- Employee Protective Measures
- Hazard Rating Systems Currently In Use
- Chemical Warning Labels
- Chemical Storage Requirements