Hazardous Chemicals Handling and Storage Training Course

Professional Development Training Course Outline

Category	General Training	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Hazardous Chemicals Handling and Storage Training Course is designed to equip professionals with advanced skills in chemical safety management, hazardous material handling, industrial risk control, and regulatory compliance. In today’s high-risk industrial environments, improper chemical handling can lead to catastrophic incidents including explosions, toxic exposure, environmental contamination, and regulatory penalties. This training ensures participants understand global safety standards, OSHA guidelines, GHS labeling system, and emergency response protocols to minimize workplace hazards.

With increasing industrialization and stricter safety regulations, organizations are prioritizing chemical risk assessment, safe storage systems, spill prevention strategies, and sustainable hazardous waste management. This course integrates real-world case studies and practical applications to build strong operational competence in chemical logistics, warehouse safety, PPE compliance, and incident prevention systems, ensuring safer workplaces and regulatory adherence across all sectors.

Programme Curriculum

Hazardous Chemicals Handling and Storage Training Course

Introduction

Hazardous Chemicals Handling and Storage Training Course is designed to equip professionals with advanced skills in chemical safety management, hazardous material handling, industrial risk control, and regulatory compliance. In today’s high-risk industrial environments, improper chemical handling can lead to catastrophic incidents including explosions, toxic exposure, environmental contamination, and regulatory penalties. This training ensures participants understand global safety standards, OSHA guidelines, GHS labeling system, and emergency response protocols to minimize workplace hazards.

With increasing industrialization and stricter safety regulations, organizations are prioritizing chemical risk assessment, safe storage systems, spill prevention strategies, and sustainable hazardous waste management. This course integrates real-world case studies and practical applications to build strong operational competence in chemical logistics, warehouse safety, PPE compliance, and incident prevention systems, ensuring safer workplaces and regulatory adherence across all sectors.

Course Duration

5 days

Course Objectives

1. Master Hazardous Materials Classification & Identification
2. Understand Globally Harmonized System (GHS) Labeling & SDS Interpretation
3. Apply Chemical Risk Assessment & Hazard Analysis Techniques
4. Implement Safe Chemical Storage Standards & Segregation Methods
5. Develop Spill Prevention, Control & Countermeasure (SPCC) Plans
6. Strengthen Workplace Occupational Health & Safety (OHS) Compliance
7. Apply Emergency Response & Chemical Incident Management
8. Improve Personal Protective Equipment (PPE) Selection & Usage
9. Ensure Fire Safety in Chemical Storage Facilities
10. Learn Toxic Substance Exposure Control & Monitoring
11. Implement Environmental Protection & Waste Disposal Compliance
12. Strengthen Industrial Safety Auditing & Inspection Skills
13. Develop ISO 45001 & OSHA Regulatory Compliance Expertise

Target Audience

1. Safety Officers & HSE Managers
2. Chemical Engineers & Process Technicians
3. Warehouse & Logistics Supervisors
4. Industrial Plant Operators
5. Environmental Health & Safety Inspectors
6. Oil & Gas Industry Personnel
7. Manufacturing & Production Supervisors
8. Emergency Response & Fire Safety Teams

Course Modules

Module 1: Introduction to Hazardous Chemicals & Classification

- Chemical hazard categories
- GHS classification system overview
- Understanding Safety Data Sheets (SDS)
- Hazard pictograms and labeling systems
- Regulatory frameworks
- **Case Study:** Explosion incident in a chemical warehouse due to misclassification of flammable solvents.

Module 2: Chemical Risk Assessment & Hazard Identification

- Workplace chemical hazard identification
- Risk matrix development

- Exposure pathways analysis
- Quantitative and qualitative risk assessment
- Control hierarchy application
- **Case Study:** Industrial poisoning incident due to inadequate exposure assessment in a paint manufacturing plant.

Module 3: Safe Storage & Segregation of Chemicals

- Chemical compatibility and incompatibility
- Storage temperature and ventilation requirements
- Secondary containment systems
- Labeling and inventory management
- Storage facility design standards
- **Case Study:** Fire outbreak caused by improper storage of oxidizers near flammable liquids.

Module 4: Chemical Handling Procedures & PPE Usage

- Safe transfer and handling procedures
- PPE selection and maintenance
- Manual vs automated handling systems
- Safe decanting and dispensing practices
- Worker training and competency checks
- **Case Study:** Skin burn injuries due to improper PPE usage during acid handling operations.

Module 5: Emergency Response & Spill Control

- Chemical spill response planning
- Decontamination procedures
- Emergency evacuation protocols
- First aid for chemical exposure
- Incident reporting systems
- **Case Study:** Large-scale ammonia leak incident and evacuation failure in a refrigeration plant.

Module 6: Fire Safety & Explosion Prevention

- Fire triangle and chemical ignition sources
- Explosion risk zones classification
- Fire suppression systems for chemical storage
- Static electricity control measures
- Hot work permit systems
- **Case Study:** Dust explosion in a fertilizer plant due to improper ignition control.

Module 7: Environmental Protection & Waste Management

- Hazardous waste categorization
- Safe disposal and recycling methods
- Environmental impact mitigation strategies
- Pollution control technologies
- Regulatory compliance reporting
- **Case Study:** Groundwater contamination from improper chemical waste disposal in an industrial site.

Module 8: Regulatory Compliance & Safety Auditing

- OSHA & ISO 45001 compliance frameworks
- Internal safety audits and inspections
- Documentation and reporting systems
- Safety performance indicators (KPIs)
- Continuous improvement systems
- **Case Study:** Company fined due to repeated non-compliance with chemical storage regulations during audit.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com