



COURSE  
OVERVIEWS

FIRE AND CHEMICAL  
COURSES



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VERITAS**

# Corrosive Materials: Acids and Bases

## Who should attend?

This course is aimed at Fire Officers and other Emergency Service personnel who are required to attend incidents, where corrosive materials, namely acids and bases have been involved. This course is particularly useful as a refresher to those who have already undergone HAZCHEM training.

## Aims and objectives

**By the end of this 1-day course, which incorporates a mixture of presentation, case studies, practical and tabletop exercises, participants will be able to:**

- Describe the terms acid and base, and identify the presence of these at incidents
- Demonstrate a level of understanding of the term pH, its measurement and its relevance
- Achieve an understanding of the properties of and hazards presented by particular acids and bases and how these impact on specific incidents e.g. spills, corrosive attacks
- Apply incident management techniques and methods to aid incident resolution

## Course outlines

- Definitions of acids, bases and pH
- Measurement of pH
- Properties and hazards of specific acids and bases
- Incident management
- Dilution vs neutralisation
- Environmental and health risks if released

## Additional information

**Duration:** Full day

**Maximum number of participants:** 12

## For further information

t: 0345 600 1828

e: [traininguk@uk.bureauveritas.com](mailto:traininguk@uk.bureauveritas.com)

w: [www.bureauveritas.co.uk/training](http://www.bureauveritas.co.uk/training)

# Sampling and Sample Collection Fundamentals

## Who should attend?

This course is aimed at Fire Officers, operators of DIM analysis equipment, and other Emergency Service personnel who are required to attend incidents involving sampling of hazardous chemicals during operational incidents. The course is particularly useful as a refresher to those who have already undergone HAZCHEM training.

## Aims and objectives

**By the end of this 1-day course, which incorporates a mixture of presentation, case studies, practical and tabletop exercises, participants will be able to:**

- Develop a sampling strategy to ensure that samples are collected in a way that ensures the safety of the sampler and analyst
- Demonstrate how the sample is representative, correctly handled and stored
- Describe where to sample, how much to collect and how many samples to take
- Apply techniques to avoid incorrect sampling that can result in significant problems with subsequent analysis
- Have a forensic awareness when sampling so as to obtain samples of evidential quality

## Course outlines

- Chemical properties
- What is a good sampling strategy
- Sampling methodology i.e. location, labelling, documentation, PPE
- Where to take samples from
- How many samples to take
- What sampling equipment to use
- Sampling of gases, liquids and solids
- Sampling using DIM equipment
- How to store samples appropriately

## Additional information

Duration: Full day

Maximum number of participants: 12

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# Advanced DSLR Photography

## Who should attend?

With advanced photographic equipment more accessible than ever before, there is an increasing expectation of high quality images in the workplace.

This course is aimed at those who need to improve their skills when taking photos in conditions that are not ideal and can pose considerable challenges and are critical to surveys, reports and investigations.

## Aims and objectives

**By the end of this 1-day course, participants will be able to:**

- Utilise practical steps towards producing photographs which improve the quality & accuracy of your documentation
- Combine theory and practical aspects to deliver a real-world working knowledge of DSLR photography fit for any environment or setting
- Develop their skills to take usable photographs in extremely bright, dark or mixed lighting conditions
- Demonstrate how to use a DSLR camera with an external flash to their combined full potential
- Learn how to take clean, sharp, high quality pictures with any DSLR camera

## Course outlines

- Your camera and how to make it work for you
- Practical steps towards high quality photographs
- Managing extremely bright, dark or mixed lighting conditions
- Taking photographs in difficult lighting conditions

## Additional information

Participants are encouraged to bring their own case studies, examples and ideas for discussion and will need to supply their own cameras, lenses, tripods and external flash equipment.

**Duration:** Full day

**Maximum number of participants:** 6

## For further information

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# Chemical Classification Systems

## Who should attend?

This course is aimed at Fire Officers and other Emergency Service personnel who are required to attend incidents involving transport of hazardous chemicals or who may come across hazardous chemicals during operational incidents. The course is particularly useful as a refresher to those who have already undergone HAZCHEM training.

## Aims and objectives

**By the end of this 1-day course, which incorporates a mixture of presentation, case studies, practical and tabletop exercises, participants will be able to:**

- Apply the basis of UK, EU and UN regulations regarding the classification, packaging, marking and transport of hazardous materials
- Demonstrate how to interpret hazard warning symbols and classifications
- Describe the practical nature of the risk presented by each hazard class

## Course outlines

- UN guidance regulations
- EU ADR regulations
- UK CHIP and CDG regulations
- Classes of hazard and the risks associated with each
- Rules covering other transport – rail, air, internal waterways etc
- HAZCHEM and ADR plates
- Safety Data Sheets and online resources
- Scenario based exercises involving data gathering, cross referencing and interpretation

## Additional information

**Duration:** Full day  
**Maximum number of participants:** 12

## For further information

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# Chemistry Fundamentals

## Who should attend?

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This course is aimed at Fire Officers, Operators of DIM analysis equipment and other Emergency Service personnel who are required to attend incidents involving hazardous chemicals. This course is particularly useful as a refresher to those who have already undergone HAZCHEM training.

## Aims and objectives

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**By the end of this 1-day course, which incorporates a mixture of presentation, case studies, practical and tabletop exercises, participants will be able to:**

- Understand chemistry and chemical terminology
- Identify different chemical types, reactions and properties
- Describe the nature of chemical substances e.g. appearance, ongoing reactions, using relevant terminologies as part of dealing effectively with incidents

## Course outlines

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- Basic introduction to chemistry
- Chemistry of organic compounds and how this relates to risk assessing an incident
- Chemistry of inorganic compounds
- Properties of chemical substances and associated potential hazards
- Chemical reactions
- Acids and bases
- CBRN chemicals

## Additional information

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**Duration:** Full day

**Maximum number of participants:** 12

## For further information

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# Hazardous Chemical Emergency Response and Environmental Protection

## Who should attend?

This course is aimed at site based response staff within organisations storing or using hazardous materials that have an obligation to prepare and maintain emergency plans relating to leaks, spills and other releases.

## Aims and objectives

By the end of this 1-day course, participants will be able to:

- Take the necessary steps to ensure sites are in compliance with pollution prevention guidelines, COSHH and other statutory requirements
- Demonstrate an understanding of the Environment Agency Pollution Prevention Guidelines (PPG21 & PPG22)
- Detail how a site operator should plan for and respond to hazardous materials incidents
- Improve hazard and risk awareness of response teams
- Identify and understand the hazards posed by different classes of materials
- Be confident in dealing with spills and releases
- Identify early recognition of when to involve the emergency services and external agencies

## Course outlines

### Introduction to spill response

- legal duties and responsibilities
- guidelines and site policies

### What are hazardous substances?

- Labels, signs and symbols – CLP, CHIP, CDG
- Identifying and understanding the hazards and risks
- Hazard classification

### The response process

- Site procedures and team organisation
- Incident management and the response hierarchy
- Using data sources to support response

### Site equipment

- Practical use of PPE and spill control equipment
- Practical use of detection and monitoring equipment

## Additional information

Duration: Full day

Maximum number of participants: 12

## For further information

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# Interpreting Chemical Information

## Who should attend?

This course is aimed at Fire Officers, operators of the DIM analysis suite and other Emergency Service personnel who are required to attend incidents involving hazardous chemicals. This course is particularly useful as a refresher to those who have already undergone hazardous chemicals training.

## Aims and objectives

**By the end of this 1-day course, which incorporates learning through presentations, case studies, practical and table top exercises, participants will be able to:**

- Apply terminology used in chemical information sources such as safety data sheets, Chemdata and other hazardous materials databases
- Describe how to use these sources of information to resolve an incident and how to obtain useful information specific to a risk assessment
- Understand how chemicals are classified and how this relates to the hazards posed at incidents
- Interpret information presented when dealing with incidents

## Aims and objectives

- Health and safety terminology
- Interpreting safety data sheets and other data sources
- Flammability, vapour pressure, flashpoint and other terminology
- Sources of chemical data and how to use them
- Application of data and understanding of action limits such as EH40, AEGL, IDLH etc

## Additional information

**Duration:** Full day

**Maximum number of participants:** 12

## For further information

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# Radiation Protection

## Who should attend?

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This course is suitable for any industry, local authority or fire service staff who require radiation awareness, and is particularly relevant to those staff who may be called upon to attend incidents involving radioactive substances. It is also designed for staff with responsibility for deployment and use of radiation measurement and monitoring equipment, or the development of operational policies and procedures for the safe storage of radiation sources or resolution of radiation incidents.

## Aims and objectives

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**By the end of this 1-day course, participants will be able to:**

- Demonstrate an understanding of the different types of radiation and hazards of radioactive substances
- Describe the effects of radiation and how to safely resolve incidents involving radioactive materials
- Identify the key legislative requirements and how and apply these within their working environment

## Course outlines

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- Basic Radiation Physics
- Biological Effects of Radiation
- Radiation Protection Strategy
- Dose Limits and Constraints
- Radiation Detection Equipment
- Resolving Radiation Incidents
- Current Legislation Requirements

## Additional information

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**Duration:** Full day

**Maximum number of participants:** 12

## For further information

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# Wet Chemistry Testing

## Who should attend?

This course is suitable for Fire Service Hazardous Material and Environmental Protection Officers and other fire service personnel, police services, local authority Environmental protection officers, Environment Agency Enforcement Officers and staff; Industry HSE Managers and Environmental Protection Staff.

## Aims and objectives

**By the end of this 1-day course, through a mixture of presentation, case studies, practical testing of live chemicals and tabletop exercises based on real incident scenarios, participants will be able to:**

- Understand how wet chemistry analytical techniques can be used to determine the physical and chemical properties
- Describe the associated hazards of unknown materials
- Utilise wet chemistry testing techniques to confirm an identification provided by packaging labelling or results obtained from other analytical equipment

## Course outlines

### Introduction to wet chemistry

- Properties of matter
- Chemical terms and definitions

### Chemistry theory

- Acids and bases
- Oxidation states
- Elements and compounds
- States of matter

### Initial observations

- Physical appearance
- Flammability
- Solubility

### Spot testing

- Use of chemical reagents
- Colour change tests
- Precipitation tests

### Sampling/practical testing

- Collecting gas, liquid and solid samples
- Homogeneous samples and mixtures
- Representative sample collection
- Use of test papers for gas, liquid and solid samples

### Practical demonstration

- Test papers
- Indication tubes
- Spot tests
- Acids, alkalis, oxidisers, solvents etc

## Additional information

Duration: Full day

Maximum number of participants: 12

## For further information

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# Practical Fire Extinguisher Training

## Who should attend?

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Those who will be responsible for use of Fire Extinguishers in the event of a small fire. Recommended for all employees. Highly recommended for employees working with hazardous materials or processes associated with a high risk of fire.

## Aims and objectives

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To enable delegates to understand and use Fire Extinguishers.

## Course outlines

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- Practical hands on experience of extinguishing a simulated fire

## Additional information

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Duration: ½ day

Maximum number of delegates: 12 persons per course

## For further information

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# Fire Safety Essentials for Fire Wardens

## Who should attend?

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Employees who have been appointed as Fire Marshals or Wardens, and are responsible for overseeing the safe evacuation of their building or workplace.

## Aims and objectives

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To provide delegates with a general overview of fire safety in the workplace and to allow those nominated as Fire marshals or Wardens to successfully fulfil their duties.

## Course outlines

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- Basic Principles of Fire
- Sources of Ignition
- Legal Controls
- Fire Fighting Equipment
- Safe Evacuation of Buildings
- Role of Fire Wardens
- General Housekeeping

## Additional information

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**Duration:** ½ days

**Maximum number of delegates:** 12 persons per course

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