UKATA Syllabus

OH02

Chromium VI Awareness (Hexavalent Chromium)

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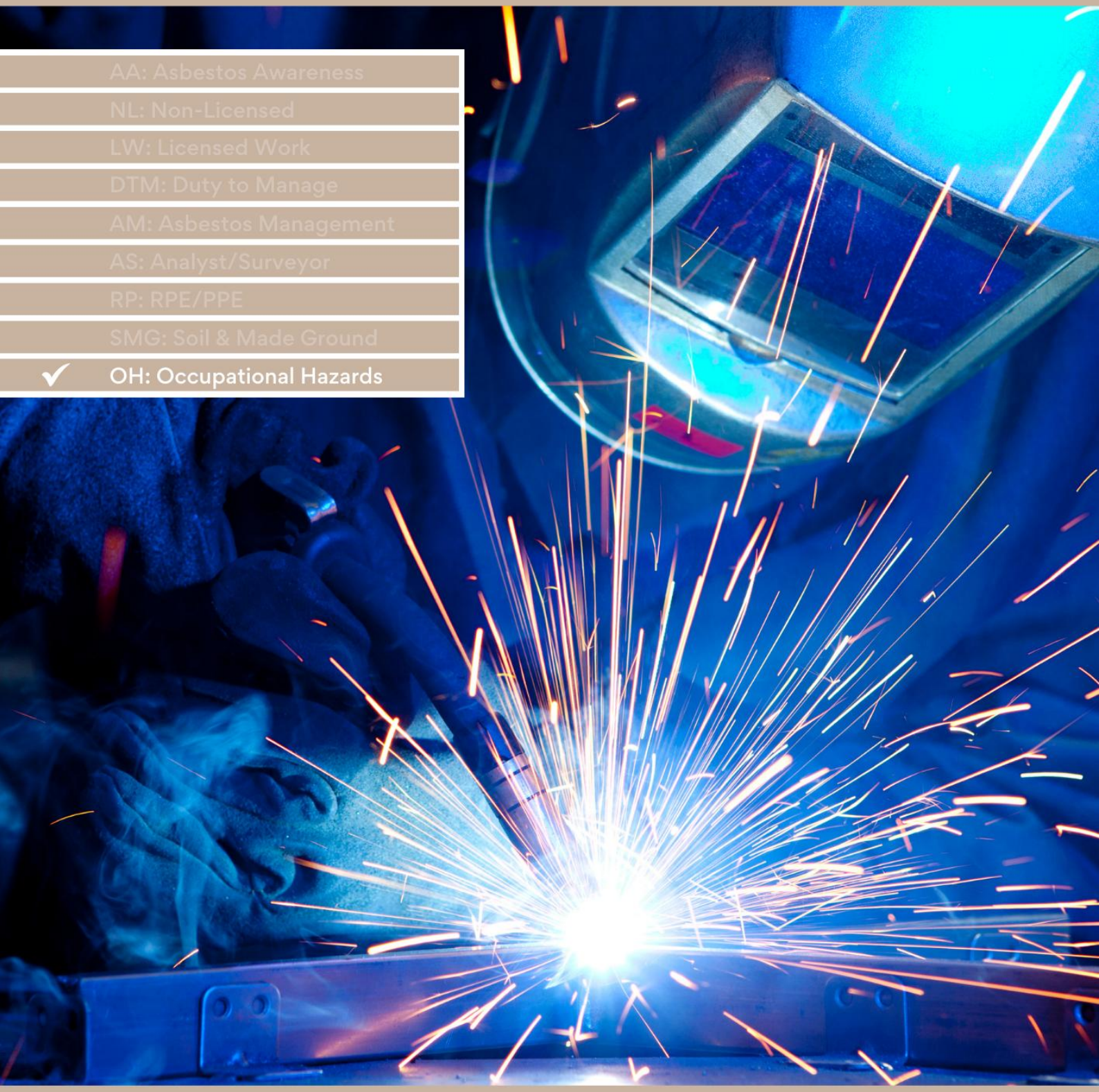
- AA: Asbestos Awareness
- NL: Non-Licensed
- LW: Licensed Work
- DTM: Duty to Manage
- AM: Asbestos Management
- AS: Analyst/Surveyor
- RP: RPE/PPE
- SMG: Soil & Made Ground
- ✓ OH: Occupational Hazards



UKATA is a leading non-profit association dedicated to improving the quality and standards of asbestos, silica and dust control training.

Recognition and Grants

UKATA is an approved CITB 3rd Party Awarding Organisation for the Construction Training Register and Construction Training Directory. While there is currently no CITB standard specifically for this course, UKATA is actively collaborating with CITB to establish one. Once approved, this syllabus will be eligible for automated grant payments to levy registered employers.

UKATA is a Member of The CPD Certification Service providing recognised independent CPD accreditation compatible with global CPD principles.

This UKATA syllabus has been reviewed and independently certified as being suitable for CPD purposes by The CPD Certification Service.

UKATA holds ISO 9001 certification and continues to maintain the quality standard through annual auditing. ISO 9001 is a global standard for quality management systems (QMS), requiring organisations to demonstrate that their internal procedures meet rigorous guidelines, ensuring consistent delivery of quality products and services to customers and stakeholders.

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1. Course Title

Chromium VI Awareness (Hexavalent Chromium)

2. Introduction

This syllabus sets out the guidance issued by UKATA for the provision of Chromium VI awareness training for employees whose work could foreseeably expose them to Chromium VI compounds, as defined within the Control of Substances Hazardous to Health (COSHH) Regulations 2002.

This document provides the syllabus for the training along with guidance on the minimum content of all courses. Tutors can offer bespoke or tailored training for the remainder of any training session, but the core content must be adhered to.

Chromium VI awareness training is not training to work with Chromium VI; it provides an overview of associated hazards, risks and controls. It is intended to be the foundation prior to any task-specific or hands-on training.

3. Purpose/Scope

The purpose of this training is to provide learners with an understanding of the potential hazards and risks associated with Chromium VI exposure and to outline legal provisions enabling employees to protect themselves and others during work activities.

4. Occupational Relevance

Supervisors and trades personnel, including trainees, whose work could foreseeably expose them to Chromium VI compounds. This includes but is not limited to welders, fabricators, chrome plating and electroplating workers, paint sprayers and coating applicators, pigment and dye production workers, foundry operatives, and construction or demolition workers involved in activities where chromium-based coatings or materials may be present.

Some learners may require a more developed course that is specific to their area of work, such as those working in stainless steel welding, specialist coating removal, or chemical processing environments.

5. Duration

Minimum of 3 learning hours.
(This includes the time allocated for the final exam)

6. Learner Pre-requisite

There are no learner pre-requisites as part of this syllabus.

7. Individual Learning Needs

The tutor must assess each learner's individual needs before the course begins and adapt the training accordingly.

8. Instruction/Supervision

As a minimum, tutors must meet the following criteria:

- Tutors must have at least three years' experience (within the past five years) in occupational health, safety, or industrial hygiene involving hazardous substances, including exposure to hazardous dusts, fumes, or chemical agents.
- Demonstrate experience in delivering awareness-level training on hazardous substances.
- Hold a relevant occupational safety qualification that covers hazardous substances (for example, a recognised COSHH qualification, NEBOSH Health and Safety qualification, or equivalent industrial hygiene certification).
- Hold a recognised trainer qualification, i.e., Level 3 Award in Education and Training, or must achieve this qualification within 12 months of registration with UKATA.
- A successful UKATA Audit, or an internal Audit undertaken by the Member company they are working for.
- After meeting the above criteria, the Tutor is required to pass the UKATA Chromium VI Awareness Tutor Knowledge Test.

9. Delivery

Training must be delivered in a suitable environment and in accordance with the UKATA Training Centre & Equipment Minimum Standards. All equipment must be of a suitable quality and quantity for learners to achieve learning outcomes and must comply with relevant legislation.

The class size and tutor to learner ratio must allow training to be delivered in a safe manner and enable learners to achieve learning outcomes. The approved training delivery methods for this training along with the maximum tutor to learner ratios are:

Classroom:	1:15
Virtual Classroom:	1:12
E-Learning:	Self-paced (tutor support available as needed)

10. Assessment

Attainment of the learning outcomes will be assessed by a multiple-choice exam consisting of at least 15 questions taken from the UKATA question bank and sat under exam conditions. At the discretion of the tutor, learners shall be permitted to refer to any notes they make during the training session, or the training manual/notes provided by the tutor.

Learners will be required to achieve a score of at least 12 out of 15 (80%) in the exam. Failure to achieve this will result in the learner requiring to re-sit the exam under exam conditions. If a learner fails the second attempt, they will be required to re-sit the course in its entirety.

The exam should have a completion time of approximately 20 minutes, though this is intended as a guideline. Tutors should accommodate the diverse needs of learners, which may include reading the questions aloud when necessary. However, no assistance may be provided in answering the questions.

11. Quality Assurance

Quality assurance against this syllabus requires verification and approval of the presentation materials, exam papers, course handouts and tutor narrative. Independent audits are carried out to demonstrate conformity with the training standards set by UKATA and each tutor maintains a CPD record that aligns with the UKATA Tutor Competency Framework.

UKATA prides itself on numerous accreditations and certifications that reflect our commitment to the highest standards of service and quality. A detailed list of these can be accessed at: UKATA Accreditations.

12. Renewal/Refresher

Certification for this training course will be valid for one year.

It is recommended that renewal/refresher training is carried out annually.

The duration of refresher training is determined by a training needs analysis (TNA) conducted by the training provider and should be a minimum of 1.5 learning hours.

Learners must provide evidence of their previous UKATA Chromium VI Awareness (or refresher) training, completed within the last 12 months. If unable to verify recent certification, learners will need to undergo the full training course again.

Following the certification expiration date, a grace period of six months is permitted for refresher training to be delivered. The employer should, in this case, carry out a TNA and discuss the training requirements with the training provider.

13. Approved Date

TBC

14. Review Cycle

Either on request or within 3 years from approval date.

15. Additional Resources

View	Working with Chromium - Are you at risk? (INDG346) - HSE guidance on the health effects and controls for Chromium VI exposure.
View	Hexavalent Chromium - Exposure to dangerous compounds during refurbishment (Welding & Coatings) - Covers fume sources in welding and coating removal, with practical control strategies.
View	Monitoring for Exposure - Guidance on air sampling and workplace monitoring for Chromium VI compounds under COSHH.
View	Control of Substances Hazardous to Health (COSHH) Regulations 2002 – Approved Code of Practice and guidance for hazardous substances, including Chromium VI.
View	Health Surveillance for Hexavalent Chromium Compounds - Industry-standard medical surveillance protocols including questionnaires, skin and respiratory checks
View	REACH Restrictions on Chromium VI Compounds - Regulatory requirements and safe use documentation for industry-specific processes.

16. Learning Outcomes

- ✓ Identify and describe the different types and properties of Chromium VI compounds and their industrial applications.

- ✓ Analyse the health risks associated with Chromium VI exposure, including its classification as a carcinogen and its potential to cause occupational asthma, nasal and sinus damage, skin ulceration and other chronic health effects.

- ✓ Review general epidemiology and workplace statistics related to Chromium VI exposure and disease outcomes.

- ✓ Recognise common sources of Chromium VI exposure in occupational settings such as welding, chrome plating, coatings, pigments and demolition activities.

- ✓ Understand why Chromium VI is present in certain materials and processes, including its functional benefits in coatings, corrosion protection, pigments and electroplating.

- ✓ Describe how airborne contamination occurs during work activities and the influence of process type, environmental conditions and material composition on exposure risk.

- ✓ Demonstrate how to locate information about Chromium VI presence prior to starting work, including reviewing COSHH assessments, safety data sheets and workplace exposure monitoring data.

- ✓ Explain emergency procedures to follow in situations involving accidental exposure, unexpected release, or contamination with Chromium VI compounds.

- ✓ Comprehend the role of COSHH regulations and associated guidance within the broader context of health and safety legislation.

- ✓ Summarise key legal duties of employers and employees regarding Chromium VI exposure, including Workplace Exposure Limits (WELs), health surveillance requirements and REACH restrictions.

17. Required Course Content

MODULE 1	DURATION: APPROXIMATELY 60 MINUTES
	Outline the properties, risks, and health effects of Chromium VI exposure:
	1.1 Properties of Chromium VI: • Explain what Chromium VI is, including its chemical properties and how it differs from trivalent chromium. • Describe why Chromium VI has been used in industry (e.g., corrosion resistance, colour stability, high-temperature performance). • Provide an overview of industries and processes historically and currently using Chromium VI compounds.
	1.2 Health risks associated with exposure: • Explain how Chromium VI enters the body (inhalation, dermal contact, ingestion) and its effects on health. • Describe respiratory risks including nasal ulceration, occupational asthma, chronic obstructive lung disease and lung cancer. • Explain dermal effects, including skin irritation and ulceration (“chrome holes”). • Discuss the carcinogenic nature of Chromium VI and the synergistic effects of smoking on lung cancer risk. • Provide latency information and dose-response considerations.
	1.3 General epidemiology and statistics. • Provide relevant HSE or international data on Chromium VI-related illnesses, workplace exposures and current trends in occupational health surveillance.

MODULE 2	DURATION: APPROXIMATELY 60 MINUTES
	Have a general knowledge of the types, uses, associated risks, and likely occurrence of Chromium VI in workplaces:
	2.1 Sources and uses of Chromium VI: • Discuss key applications such as chrome plating, stainless steel welding, chromium-based paints and coatings, pigments, dyes, and corrosion inhibitors. • Identify processes where high heat or chemical reactions convert trivalent chromium to hexavalent chromium (e.g., welding, thermal spraying, plasma cutting).
	2.2 Occupational exposure scenarios: • Provide examples of typical tasks with high-risk potential (e.g., abrasive blasting of coated surfaces, cutting painted steel, stripping chromate primers). • Describe risk factors such as poorly ventilated workspaces, confined spaces, and improper use of controls.

	2.3 Visual examples:
	• Include a minimum of 20 photographs of typical Chromium VI risk activities and materials.
	• Images should be sequenced by relative exposure risk, for example:
	  ○ Chrome electroplating tanks
	  ○ Stainless steel welding (fume generation)
	  ○ Abrasive blasting of chromate paint
	  ○ Cutting of chromate-coated components
	  ○ Chromium pigment powders
	  ○ Chromium-containing primer applications
	• Include information on typical Chromium VI content or concentration where known.

MODULE 3	DURATION: APPROXIMATELY 20 MINUTES
	How to avoid the risks from Chromium VI exposure:
	3.1 Risk control strategies: • Explain how exposure risk is influenced by process type, task duration, and environmental conditions. • Outline the hierarchy of control measures including elimination, substitution, engineering controls (LEV), administrative measures, and personal protective equipment (PPE). • Explain safe systems of work including housekeeping, hygiene facilities, use of respiratory protection, and protective clothing.
	3.2 Exposure monitoring: • Explain the purpose and types of workplace exposure monitoring (air sampling, surface sampling). • Outline the role of health surveillance programmes and when they are required.
	3.3 Emergency procedures: • Describe the immediate steps to take if Chromium VI is unexpectedly released or exposure occurs (spill response, decontamination, medical review). • Emphasise reporting, investigation, and corrective actions.

MODULE 4	DURATION: APPROXIMATELY 20 MINUTES
	Outline of legislation relating to Chromium VI:
	4.1 Relevant legislation and guidance: • Outline the origins and purpose of COSHH Regulations and how they apply to Chromium VI. • Summarise employer and employee duties including risk assessment, control measures, exposure monitoring, and health surveillance. • Explain Workplace Exposure Limits (WELs) for Chromium VI and how they are enforced. • Provide an overview of REACH restrictions and sector-specific requirements (e.g., aerospace coatings, electroplating). • Explain that this awareness training does not prepare individuals to carry out specific high-risk tasks with Chromium VI; additional training is required for those activities.