



Australian Government

CPCSIL3001 Work with products and materials containing crystalline silica

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 8.0.
Newly created unit.

Application

This unit of competency specifies the skills and knowledge required to work with products and materials containing crystalline silica (CS) and respirable crystalline silica (RCS).

The unit includes preparing for and identifying tools and equipment, including personal protective equipment (PPE) and respiratory protective equipment (RPE) to be used while working with products and materials containing CS.

The unit also covers the review of working with products and materials containing CS.

Worksites may be in factory or workshop settings or commercial and residential settings, and/or construction sites, including demolition sites.

Licensing, legislative, regulatory or certification requirements may apply to this unit. Relevant work health and safety (WHS) state and territory regulatory authorities should be consulted to confirm jurisdictional requirements.

Pre-requisite Unit

CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry

Unit Sector

Building and Construction

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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| 1 Prepare to handle products and materials containing CS. | 1.1 Interpret work requirements and instructions to handle identified products containing CS. |
| | 1.2 Seek feedback from supervisor when CS content of |

product or material is unknown or unclear.

- 1.3 Read and interpret the technical specifications for the products or materials containing CS to identify the nature of the product, risk level, risk controls and personal exposure reduction requirements.
 - 1.4 Participate in consultations on matters affecting health and safety with respect to exposure to RCS.
 - 1.5 Classify level of exposure risk to airborne RCS for identified products and materials, including likely duration of exposure.
 - 1.6 Select plant, tools, equipment, PPE and RPE required to perform specified task in accordance with the hierarchy of controls and regulatory requirements.
 - 1.7 Review the relevant safety documentation for planned work activity and work environment and contribute where required.
 - 1.8 Check operation and serviceability of relevant plant, tools, equipment, PPE and RPE to perform the work activity in accordance with WHS procedures and manufacturer instructions.
 - 1.9 Report any faults and damage to relevant plant, tools, equipment, PPE and RPE in accordance with WHS procedures.
- 2 Perform work.
- 2.1 Inspect worksite, locate services, assess hazards and apply risk controls, including required signage and barricades.
 - 2.2 Perform fit checking of RPE in accordance with manufacturer instructions and WHS procedures.
 - 2.3 Confirm risk control measures for planned work are in place in accordance with WHS procedures and manufacturer instructions.
 - 2.4 Use plant, tools, equipment, PPE and RPE required to perform specified task in accordance with WHS procedures and manufacturer instructions.
 - 2.5 Perform work activities and continual monitoring of risk

control measures in accordance with WHS procedures.

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| 3 | Perform maintenance activities and clean-up of work area. | 3.1 | Identify PPE and RPE maintenance, storage and waste disposal requirements in accordance with manufacturer instructions and WHS procedures. |
| | | 3.2 | Clean up and dispose of dust and slurry from work area in accordance with WHS procedures. |
| | | 3.3 | Clean, inspect and determine serviceability of PPE, RPE, tools and equipment in accordance with WHS procedures and manufacturer instructions. |
| | | 3.4 | Apply maintenance requirements and record and report findings of serviceability inspections in accordance with WHS procedures and manufacturer instructions. |
| | | 3.5 | Store and secure relevant tools and equipment in accordance with WHS procedures. |
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| 4 | Review working with products containing CS. | 4.1 | Assess effectiveness of the use of relevant tools, equipment, PPE and/or RPE in mitigating exposure risk. |
| | | 4.2 | Record and report on WHS incidents resulting from work activities using products and materials containing CS. |
| | | 4.3 | Record and report on findings of handling and use of products and materials containing CS as part of workplace continuous improvement and WHS processes and requirements. |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Newly created unit.

Links

Companion volumes to this training package are available at the VETNet website -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCSIL3001 Work with products and materials containing crystalline silica

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Performance Evidence

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria and foundation skills of this unit in addition to the specific performance and knowledge evidence described below.

Candidates must be able to:

- demonstrate safe use of personal protective equipment (PPE) and respiratory protective equipment (RPE), including fit checking of disposable and re-usable devices for three different work activities in accordance with manufacturer instructions
- demonstrate three different work activities, such as cutting, drilling or grinding products or materials containing crystalline silica (CS) applying all relevant work health and safety (WHS) considerations, including dust capture and suppression measures, PPE and/or RPE
- demonstrate cleaning and disposal of contaminated products and work area in accordance with WHS procedures.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- hierarchy of risk control measures:
 - elimination
 - substitution
 - isolation
 - engineering controls
 - administrative controls
 - PPE/RPE
- WHS risks working with products and materials containing CS, including features, commonalities and differences between CS and respirable crystalline silica (RCS)
- products containing CS, such as:
 - engineered stone
 - concrete
 - mortar

- bricks
- pavers
- tiles
- natural stone
- cement sheeting
- aerated concrete
- silica dust generated by workplace mechanical processes, such as:
 - cutting
 - crushing
 - drilling
 - grinding
 - cutting, grinding and/or abrasive polishing of engineered stone
- additional work activities that can generate respirable silica dust particles, including:
 - excavation, earth moving and drilling plant operations
 - demolition
 - clay and stone processing machine operations
 - paving and surfacing
 - mining, quarrying and mineral ore treating processes
 - tunnelling
 - construction labouring activities
 - brick, concrete or stone cutting; especially using dry methods
 - abrasive blasting (blasting agent must not contain greater than 1 per cent of CS)
 - foundry casting
 - angle grinding, jack hammering and chiselling of concrete or masonry
 - hydraulic fracturing of gas and oil wells
 - pottery making
- worksites where silica dust can be found:
 - manufacturing environment
 - residential construction
 - commercial construction
 - civil construction
- AS/NZ 1715:2009 Selection, use and maintenance of respiratory protective equipment and AS/NZ 1716:2012 Respiratory protective devices, or their equivalent
- Relevant Australian Standards, regulations and codes of practice
- WHS procedures
- relevant legislation governing handling and working with products containing CS, including monitoring requirements
- employer responsibilities and duty of care requirements:
 - consultation and communication processes
 - health monitoring

- personal exposure monitoring
- use of PPE and compliant RPE, including disposable and re-usable devices in accordance with AS/NZ 1715:2009 Selection, use and maintenance of respiratory protective equipment and AS/NZ 1716:2012 Respiratory protective devices, or equivalent
- RPE:
 - half-face disposable
 - half-face reusable
 - full-face reusable
 - powered air purifying respirators
- factors affecting fit of PPE and RPE e.g., beards and facial hair
- range of compliant plant, tools and equipment used with products containing CS
- relevant documents with information on safe work practices and technical information on products containing CS, such as:
 - WHS policies and procedures
 - relevant jurisdictional legislation
 - relevant codes of practice
 - safe work method statements (SWMS)
 - job safety and environmental analysis (JSEA)
 - safety data sheets (SDS)
 - product manuals
 - technical specifications
 - product labels
- maintenance requirements on respirators for RCS and for power tools, plant and equipment
- safe cleaning and housekeeping methods with silica dust, including cleaning and managing wet or dry material on clothing
- dust control measures.

Assessment Conditions

Assessment of performance must be undertaken in the workplace or simulated workplace environment. A simulated workplace is one that fully replicates the resources, environment and any time and productivity pressures that exist in the actual workplace, and which meets industry standards for safety and environmental practices.

Candidates must be provided with access to:

- real or simulated worksites
- environmental requirements and sustainability principles
- relevant tasks or work specifications
- appropriate documents, materials, tools, equipment, PPE and P2 half-face disposable and re-usable RPE currently approved for use in industry and worksite

- relevant codes of practice, Australian Standards, legislation, regulations and requirements of workplace policies and procedures as required by Commonwealth, state and territory regulators.

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