



Australian Government

CPCSIL1001 Identify products and materials containing crystalline silica

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Modification History

Release	Comments
1	This unit of competency was first released in CPC Construction, Plumbing and Services Training Package Release 11.0.

Unit outcomes

This unit of competency specifies the application of the knowledge and skills to identify products and materials containing crystalline silica (CS).

This unit is primarily knowledge-based, focused on providing candidates with the underpinning knowledge and skills to safely identify products and materials containing CS under supervision, and describe appropriate risk control measures to manage respirable crystalline silica (RCS) exposure in the workplace.

This unit does not prepare the candidate to work with products containing crystalline silica or generating respirable crystalline silica, which is covered in the unit CPCSIL3002 Work with products and materials containing crystalline silica.

Licensing/Regulatory Information

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.

Knowledge

Upon successful completion of this unit, a candidate must be able to demonstrate knowledge and understanding of:

- products and materials containing CS.
- features, commonalities and differences between CS and RCS.
- what to do if you can't identify whether products and materials contain CS.
- tasks and processes that may generate respirable crystalline silica RCS dust, tasks and processes that may generate respirable crystalline silica RCS dust, including clean-up and disposal of silica contaminants.
- hierarchy of controls.
- engineering controls including tools and equipment, on-tool dust capture devices and dust suppression (with water) for working with products containing CS.

- personal protective equipment (PPE) and respiratory protective equipment (RPE) used while working with products and materials containing CS.
- safe storage and maintenance of equipment used in tasks involving CS.

Skills

Upon successful completion of this unit, a candidate must be able to:

- identify and confirm with supervisor products and materials containing CS features, commonalities and differences between CS and RCS.
- access Safety Data Sheets and technical specifications.
- identify and confirm with supervisor tasks and processes that may result in exposure to silica dust, including clean-up and disposal of silica contaminants.
- describe health hazards of RCS.
- describe the basic principles of risk management when working with CS.
- identify and describe the engineering controls used while working with products and materials containing CS.
- identify and describe tools and equipment including on-tool dust capture devices and dust suppression (with water) for working with products containing CS.
- identify and describe the purpose, use and limitations of personal protective equipment (PPE) and respiratory protective equipment (RPE) used while working with products and materials containing CS.
- describe the safe storage and maintenance requirements of equipment used in tasks involving CS.

Application of Knowledge & Skills

The candidate, under close supervision, identifies products and materials containing crystalline silica (CS) within a designated worksite, utilising Safety Data Sheets (SDS) and technical specifications.

They describe tasks and processes that may generate respirable crystalline silica (RCS) dust, confirming findings with a supervisor.

The candidate describes the hierarchy of controls, appropriate risk control measures, suitable personal protective equipment (PPE) and respiratory protective equipment (RPE), and safe storage and maintenance of equipment.

The candidate identifies CS containing materials and describes associated risks with guidance from a supervisor.

The candidate describes appropriate control measures to manage RCS exposure, according to workplace safety protocols and supervisor instructions.

Pre-requisite unit(s)

No pre-requisite units

Competency field(s)

Silica Safety

Unit sector(s)

Building and Construction

Range of conditions

N/A

Assessment Requirements for CPC SIL1001 Identify products and materials containing crystalline silica

Performance Evidence

A person demonstrating competency in this unit must satisfy the knowledge and skill requirements of this unit.

Specifically, the candidate must:

- describe the hierarchy of controls and identify and discuss the risk management strategies and control measures for at least three different work activities that can generate respirable crystalline silica (RCS) dust.
- recognise at least five different materials that may contain crystalline silica (CS).
- describe the clean-up and disposal of silica contaminants from a work area, according to jurisdictional regulatory and legislative requirements.

Knowledge Evidence

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

- health and safety risks of working with products and materials containing CS, including the health hazards of RCS
- products and materials containing crystalline silica, such as:
 - engineered stone
 - concrete
 - mortar
 - bricks
 - pavers
 - reconstituted stone
 - tiles
 - natural stone materials
 - cement sheeting
 - aerated concrete
 - sand
 - mulch
 - porcelain
- features, commonalities and differences between CS and RCS
- how to identify whether products and materials contain crystalline silica

- processes that generate silica dust RCS, such as:
 - cutting
 - crushing
 - drilling
 - grinding
 - chiselling
 - abrasive polishing
 - exfoliating or flaming
 - demolition activities
- worksites where silica dust can be found, such as:
 - manufacturing environment
 - residential construction
 - commercial construction
 - civil construction
 - mine sites
 - quarries
- employee responsibilities and requirements
- types and applications of personal protective equipment (PPE) and respiratory protective equipment (RPE) used when working with CS, including:
 - disposable PPE
 - half-face reusable RPE
 - full-face reusable RPE
 - powered air purifying respirators
- safe maintenance, cleaning and storage methods for reusable PPE and RPE
- safe disposal methods for disposable PPE and RPE
- safe disposal of CS waste
- safe cleaning methods with silica dust
- dust control measures
- where to find information on safe work practices and technical information on products containing CS, including:
 - workplace health and safety policies and procedures
 - codes of practice and jurisdictional legislation
 - safe work method statements (SWMS)
 - Job Safety and Environmental Analysis (JSEA)

- Safety Data Sheets (SDS)
- product manuals and labels.

Assessment Conditions

Candidates must not be exposed to CS or RCS risks when undertaking this unit of competency.

Candidates **must be** provided with access to:

- appropriate documents, including SDS, manufacturer's instructions, product manuals and labels, and relevant codes of practice, Australian Standards, legislation, regulations and requirements of workplace policies and procedures as required by Commonwealth, state and territory regulators.

Assessors must hold the following current qualification or its successor:

- BSB41419 Certificate IV in Work Health and Safety or equivalent/higher relevant work health and safety qualification.

Mandatory Workplace Requirements

There are no mandatory workplace requirements for assessment. Assessment of performance must be conducted in a simulated environment.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
	Newly created	This unit has been created to address a skill or task required by industry that is not covered by an existing unit of competency

Links

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/CPC>.