



Australian Government

MSL965002 Perform glass coating, grinding and finishing operations

Release: 1

MSL965002 Perform glass coating, grinding and finishing operations

Modification History

Release 1. Supersedes and is equivalent to MSL965002A Perform glass coating, grinding and finishing operations

Application

This unit of competency covers the ability to perform glass coating, grinding and finishing operations for scientific glassware.

This unit of competency is applicable to skilled and experienced scientific glassblowers. They will apply specialised technical knowledge and precise technical skills and considerable planning and judgement in their work.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

MSL963001 Operate basic handblowing equipment

MSL963002 Repair glass apparatus using simple glassblowing equipment

Competency Field

Scientific glassblowing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|------------------------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Prepare for work | 1.1 | Identify appropriate specifications and procedures, and discuss any issues or problems with customer and work team |
| | | 1.2 | Identify hazards and workplace safety requirements |
| | | 1.3 | Record description of the job, compare with specification and plan work activities |
| | | 1.4 | Prepare equipment in accordance with job requirements |
| 2 | Perform glass coating operations | 2.1 | Identify, select and prepare appropriate grades of glass, coating materials, abrasives, solutions and finishing agents as appropriate for the job |
| | | 2.2 | Clean and prepare glass as required for coating operation |
| | | 2.3 | Perform glass coating operation according to standard procedure |
| | | 2.4 | Perform post-coating procedures to maintain coated surface |
| | | 2.5 | Perform coating removal processes |
| | | 2.6 | Ensure appropriate disposal of all waste |
| 3 | Perform glass grinding operations | 3.1 | Identify and prepare grinding tools as required for procedure |
| | | 3.2 | Select appropriate abrasives for grinding operations |
| | | 3.3 | Perform grinding and repairing/re-grinding processes as appropriate |
| | | 3.4 | Test ground surfaces to ensure they meet compliance requirements |

		3.5	Identify and rectify problems that arise during operations
4	Perform glass finishing operations	4.1	Establish finishing requirements for the job
		4.2	Perform finishing procedures as required for job
5	Maintain a safe work environment	5.1	Use established safe work practices and personal protective equipment (PPE) to ensure safety of self and other workers
		5.2	Minimise the generation of wastes
		5.3	Ensure the safe disposal of wastes
		5.4	Clean, care for and maintain work area, equipment and tools
		5.5	Report any hazards or incidents according to workplace procedures
6	Maintain records	6.1	Record data in accordance with workplace requirements
		6.2	Maintain glass apparatus and system equipment logs in accordance with workplace requirements
		6.3	Ensure security and confidentiality of workplace information

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the laboratory safety; quality and environmental management; and labelling, storage, handling and transport of hazardous materials
- national work health and safety (WHS) standards and codes of practice
- specific codes, guidelines and procedures, such as principles of good laboratory practice (GLP)
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; maintenance schedules; material safety data sheets (MSDS); safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; and waste minimisation and safe disposal procedures

Hazards

Hazards include, but are not limited to, one or more of:

- glass dust
- sharps and broken glassware
- residues on used glassware, such as mercury
- heat sources, such as burners and ovens
- fluids under pressure (acetylene and oxygen)
- cuts associated with glass grinders and cutters
- manual handling of heavy bags, containers and equipment

Safety procedures

Safety procedures include, but are not limited to, one or more of:

- ensuring access to service shut-off points
- recognising and observing hazard warnings and safety signs
- correct labelling of samples and hazardous materials
- extracting dust
- following established manual handling procedures
- handling and storing hazardous materials and equipment in accordance with labels, MSDS, manufacturer instructions, and workplace procedures and regulations
- regular cleaning and/or decontamination of equipment and work

areas

- using PPE, such as heat resistant gloves, safety glasses, goggles, face guards, coveralls, respirators and safety boots

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>