



Australian Government

MSL933004 Perform calibration checks on equipment and assist with its maintenance

Release: 1

MSL933004 Perform calibration checks on equipment and assist with its maintenance

Modification History

Release 1. Supersedes and is equivalent to MSL933004A Perform calibration checks on equipment and assist with its maintenance

Application

This unit of competency covers the ability to perform set-up, pre-use and in-house calibration/validation checks on equipment and assist with its maintenance.

This unit of competency is applicable to laboratory assistants working in all industry sectors.

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

Nil

Competency Field

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Perform set-up and pre-use checks of laboratory equipment	1.1	Perform laboratory equipment set-up and pre-use checks in accordance with workplace procedures
		1.2	Perform safety checks in accordance with relevant workplace and instrumental procedures
		1.3	Identify faulty or unsafe components and equipment and report to appropriate personnel
		1.4	Complete equipment log books/records to meet workplace requirements

- | | | | |
|---|--|-----|--|
| 2 | Perform calibration checks | 2.1 | Start up equipment according to operating procedures |
| | | 2.2 | Use specified standards for calibration check |
| | | 2.3 | Check equipment in accordance with calibration procedures and schedules |
| | | 2.4 | Record all calibration data accurately and legibly |
| | | 2.5 | Compare data with specifications and/or previous records to identify non-compliant equipment |
| | | 2.6 | Quarantine out-of-calibration equipment |
| 3 | Assist with equipment maintenance | 3.1 | Ensure all equipment work areas are clean during and after equipment use |
| | | 3.2 | Perform basic maintenance in accordance with workplace procedures |
| | | 3.3 | Clean and store equipment according to workplace and/or manufacturer's specifications/procedures |
| | | 3.4 | Identify and replace, repair or dispose of damaged/worn equipment as appropriate |
| 4 | Maintain records | 4.1 | Record and report information on unsafe or faulty equipment according to workplace procedures |

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 competence of testing and calibration laboratories, laboratory safety and quality management
- national work health and safety (WHS) standards and codes of practice, national measurement regulations and guidelines
- industry specific codes, regulations and guidelines, such as good laboratory practice (GLP)
- workplace documents, such as standard operating procedures (SOPs), quality and equipment manuals, calibration check and maintenance schedules, material safety data sheets (MSDS) and safety procedures, material, production and product specifications, production and laboratory schedules, workplace recording and reporting procedures, and waste minimisation and safe disposal procedures

Typical equipment

Typical equipment includes, but is not limited to, one or more of:

- balances; glassware; plastic ware; glass, plastic and quartz cuvettes, pipettes, burettes and volumetric glassware
- blending, mixing and separating equipment, such as sieves and centrifuges
- autoclaves, dishwashers, refrigerators, freezers, ovens, hotplates, mantles, burners and muffle furnaces, microwave ovens, ultrasonic cleaners, incubators and water baths, and gas cylinders
- fume hoods, biohazard containers and biological safety cabinets
- microtomes and tissue processors, cell counters and staining machines
- colorimeters/spectrometers and polarimeters, light and fluorescence microscopes
- thermometers, thermohygrographs, hydrometers, conductivity meters and pH meters and ion-selective electrodes, noise meters, melting point apparatus, viscometers and instrument chart recorders
- steel ruler/tapes and spirit levels, shovels, scoops, plates, rods, cylinder moulds and buckets
- riffles and splitters and mixers, compaction rammers and soil classification equipment, penetrometers, force measuring equipment and tensiometers, and hardness testing equipment

WHS and environmental management

WHS and environmental management requirements include:

- complying with WHS and environmental management

requirements

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

Release 1. Supersedes and is equivalent to MSL933004A Perform calibration checks on equipment and assist with its maintenance

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL933004 Perform calibration checks on equipment and assist with its maintenance

Modification History

Release 1. Supersedes and is equivalent to MSL933004A Perform calibration checks on equipment and assist with its maintenance

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- performing set-up and pre-use checks for at least three (3) items of equipment
- recognising non-standard behaviour of equipment
- performing calibration checks for at least two (2) items of basic equipment using standard procedures
- obtaining reliable calibration data with the required accuracy and precision
- identifying non-compliant equipment by comparing calibration data with specifications and/or previous data records
- following workplace data recording and reporting procedures
- performing basic cleaning and/or maintenance tasks for at least three (3) items of equipment
- following all relevant work health and safety (WHS) and environmental management requirements.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- role and importance of regular calibration checks and maintenance of equipment
- function of key components of the equipment and details of the pre-use, calibration and safety checks and operating procedures for items of equipment used
- sources of uncertainty in equipment operation and their control
- basic equipment cleaning, maintenance and storage procedures for items of equipment used
- workplace procedures for recording data and reporting results
- relevant hazards, WHS and environmental management requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.

- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL973001 Perform basic tests
- Holistic assessment methods include:
 - review of equipment log book entries, calibration data and maintenance records generated by candidate
 - feedback from peers and supervisors about the candidates ability to perform calibration checks and assist with basic maintenance
 - observation of the candidate performing equipment set-up, pre-use checks, shutdown procedures, calibration checks, cleaning and maintenance tasks
 - oral or written questioning to check required knowledge of workplace procedures for the safe use, cleaning and maintenance of the items of equipment used.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - standard laboratory equipped with appropriate equipment and reference materials; cleaning, decontamination and/or disinfection agents and equipment; and personal protective equipment (PPE)
 - workplace procedures, equipment manuals and information/records management system.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>