



Australian Government

MSL935002 Assist in the maintenance of reference materials

Release: 1

MSL935002 Assist in the maintenance of reference materials

Modification History

Release 1. Supersedes and is equivalent to MSL935002A Assist in the maintenance of reference materials

Application

This unit of competency covers the ability to assist in the maintenance of reference materials that can be used in tests and the identification of new specimens as part of quality control of laboratory procedures. The unit of competency does not cover the scientific identification of species or specimens.

This unit of competency is applicable to technical officers and laboratory technicians 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

Quality

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Acquire reference materials	1.1	Confirm that required transit conditions were maintained
		1.2	Apply quarantine or isolation arrangements as necessary
		1.3	Record data of accessioned reference material in the collection database
		1.4	Label material to ensure that its identity is maintained during storage and issue

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| 2 | Maintain reference materials | 2.1 | Monitor storage conditions to ensure that they comply with suppliers' warranty specifications |
| | | 2.2 | Monitor storage conditions to ensure materials remain true to specification |
| | | 2.3 | Test material during storage and before release, where relevant and appropriate, to report on reference characteristics and specificity |
| | | 2.4 | Report findings that suggest reference specimens may be deteriorating |
| | | | |
| 3 | Dispense reference materials to clients | 3.1 | Verify requests with supervisor before requests for reference materials are processed |
| | | 3.2 | Supply reference material without contamination of stock material |
| | | 3.3 | Keep records of materials issued in accordance with workplace procedures |
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| 4 | Maintain a safe work environment | 4.1 | Use established safe work practices and personal protective equipment (PPE) to ensure personal safety and that of other laboratory personnel |
| | | 4.2 | Follow safety protocols when handling and processing reference materials |
| | | 4.3 | Minimise the generation of wastes and environmental impacts |
| | | 4.4 | Ensure the safe collection of redundant/outdated stocks for subsequent disposal |

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 design and construction; laboratory safety; quality and environmental management; and labelling, storage, handling and transport of hazardous substances
- national work health and safety (WHS) standards and codes of practice, national measurement regulations and guidelines, and national environmental protection measures
- specific legislation, regulations, codes, guidelines, procedures and methods, such as Australian code of good manufacturing practice for medicinal products (GMP), principles of good laboratory practice (GLP), dangerous goods, animal welfare, Australian Quarantine and Inspection Service (AQIS) Export Control Orders and Import Guidelines, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), gene technology, National Health and Medical Research Council (NHMRC) and Therapeutic Goods Regulations
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration 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; waste minimisation and safe disposal procedures; and cleaning, hygiene and personal hygiene requirements
- sampling procedures (labelling, preparation, storage, transport and disposal)
- test procedures (validated and authorised)
- schematics, work flows and laboratory layouts

Reference materials

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

Process manufacturing and construction industry sector:

- drill (core) samples for mineral identification
- concrete samples for analysis of composition and/or strength and suitability for application

Biomedical and environmental industry sector:

- specimens, including cells, tissues and samples of aqueous or proteinaceous standards
- bacterial cultures related to colony and microscopic morphology, specificity and reliability of staining reaction, biochemical characteristics and immunological characteristics
- cell suspensions and cell and tissue preparations that can act as quantitative or qualitative controls in tests and procedures
- plasma and other body fluids with known attributes or quanta that can act as standards and controls in quantitative and qualitative tests and procedures

Food and beverage processing industry sector:

- aggregates, grains and powders
- materials for testing viability of enzymes used in process
- bacterial or yeast cultures relating to colony and microscopic morphology for culturing purpose
- grain samples used in identification of cereal specimens (e.g. barley varieties, such as Proctor, Franklin and Stirling)
- food samples used in allergy testing (e.g. nuts, wheat, milk and fish)

Equipment, materials and systems

Equipment, materials and systems include, but are not limited to, one or more of:

- laboratory glassware and measuring equipment, centrifuges, water baths and incubators, lyophilisers and humidifiers
- equipment and material for storage and/or transport, such as storage boxes, dry ice or ice packs and liquid nitrogen
- storage and display cabinets
- information management systems, databases, record and filing systems
- equipment suitable for the safe collection and disposal of biological and non-biological wastes

Hazards

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

- chemicals, reagents
- microorganisms associated with soil, air, water, blood and blood products and human or animal tissue and fluids
- sharps, such as broken glassware
- disturbance or interruption of services
- manual handling of heavy boxes

Safety procedures

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

- use of PPE, such as hearing protection, gloves, safety glasses and coveralls
- ensuring access to service shut-off points
- handling and storing hazardous materials and equipment in accordance with labels, MSDS, manufacturer's instructions and workplace procedures and regulations
- regular cleaning of equipment and work areas

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

Release 1. Supersedes and is equivalent to MSL935002A Assist in the maintenance of reference materials

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 MSL935002 Assist in the maintenance of reference materials

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Performance Evidence

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

- maintaining reference materials so that their reference characteristics and attributes are stable in storage and manifest in use after retrieval
- maintaining material identity during storage and transport
- testing stored material for reference characteristics before release
- performing all tests and manipulations safely
- communicating appropriately with customers.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- the nature and purpose of certified reference materials(i.e. what they are, when and why they should be used)
- the storage requirements of biological and non-biological materials
- quarantine or isolation procedures relevant to work area
- the labile nature of chemical and biological materials
- the rationale for testing reference characteristics before issuing reference materials
- reasons for testing before accession of reference materials
- relevant hazards, work health and safety (WHS) and environment 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:
 - MSL916003 Supervise laboratory operations in work or functional area
 - MSL975001 Perform microbiological tests
 - MSL976003 Evaluate and select appropriate test methods and procedures
- Holistic assessment methods include:
 - review of records for the supply of reference materials by the candidate
 - observation of the candidate performing tests of stored reference material prior to release and review of results
 - review of responses to reference material case studies or ‘what if’ scenarios
 - oral/written questioning about receipt, testing during storage and release of reference materials.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - equipment and materials related to the workplace task for which the reference material is relevant
 - reference materials
 - standard operating procedures (SOPs).
- 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.

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