



Australian Government

Assessment Requirements for MSL973007 Perform microscopic examination

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL973007A Perform microscopic examination

Performance Evidence

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

- safely performing microscopic examination of at least three (3) different samples and correctly identifying and reporting the characteristics of each
- checking suitability of samples, such as labelling, spillage, spoilage due to incorrect storage and transport conditions, temperature control and suitability for the examination
- safely preparing routine biological and/or physical samples in accordance with workplace procedures or standard methods
- checking the quality of prepared samples, such as:
 - clean and scratch-free microscope slides to reduce artefacts
 - preparation according to specified procedure/method
 - homogeneous suspension of sample
 - films and smears that have been fixed rapidly
 - thin films with a monolayer of cells
 - appropriate whole mounts for intact organisms
 - correct sample identification during and after processing
- performing pre-use checks of equipment, such as calibration, routine cleaning and maintenance, and use by dates of reagents
- setting up a light microscope for optimal resolution
- accurately observing, identifying and reporting sample characteristics
- performing counts on samples and basic measurements using grids
- performing accurate calculations as required by the method, such as:
 - dilutions
 - percentage viability
 - number of cells in original sample after dilution
 - calculation of cells/ml in a number of squares of a counting chamber
- interpreting and recording test results reliably
- logging and tracking samples through all steps from sample receipt to completion of the examination and reporting
- minimising cross-contamination and contamination of the laboratory and environment
- using personal protective equipment (PPE) and safety procedures to maintain personal safety and that of others

- handling/storing samples and equipment and collecting/disposing of waste in accordance with workplace procedures.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- nature of samples, sample preparation methods, methods of examination and associated hazards
- parts and functions of a light microscope and steps taken to optimise the resolution of images
- importance and appropriate use of controls and certified reference materials
- workplace and/or legal traceability requirements
- relevant 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:
 - MSL922001 Record and present data
 - MSL933002 Contribute to the achievement of quality objectives
 - MSL943002 Participate in laboratory or field workplace safety
 - MSL953001 Receive and prepare samples for testing
- Holistic assessment methods include:
 - review of data records prepared by the candidate, such as counts, observations and results
 - feedback from supervisors and peers about adherence to workplace procedures and sample preparation/examination methods
 - observation of the candidate performing microscopic examinations
 - oral/written questions about workplace procedures covering safe preparation and examination of samples.

- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - a standard laboratory equipped with appropriate equipment, including light microscopes and samples
 - workplace procedures, standard methods and materials
 - equipment, such as glass slides, counting chambers (e.g. haemocytometer), optical graticules and stage micrometers, and tissue culture flasks
 - a light microscope, such as:
 - bright field illumination microscope up to 1000 x magnification
 - stereomicroscopes and dissection microscopes
 - compound microscope
 - phase contrast microscope
 - inverted microscope.
- 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>