



**Australian Government**

# **Assessment Requirements for MSL974016 Perform physical and mechanical tests**

**Release: 1**

# Assessment Requirements for MSL974016 Perform physical and mechanical tests

## Modification History

| Release   | Comments  |
|-----------|---|
| Release 1 | New unit. Created by combining MSL974005 Perform physical tests and MSL974010 Perform mechanical tests. |

## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- safely and accurately performed at least 5 physical and/or mechanical tests that involve several measurement steps.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- relevant physical and mechanical principles and concepts including:
  - matter, interatomic and intermolecular forces and states of matter
  - mechanical concepts, such as mass and weight; forces, friction, slip resistance, cohesive/adhesive forces; pressure, hydrostatic pressure; fluid flow; viscosity and energy
  - electrical concepts, such as electric field, voltage, current, resistance and AC/DC, and electrical safety
- purpose of tests or procedures conducted
- concepts of metrology, principles and concepts related to equipment and instrument operation, and test or procedure
- function of key components of equipment/instrument and effects on the test of modifying equipment and instrument variables
- sample preparation procedures
- calibration and basic equipment and method troubleshooting procedures
- preparation of sample methods
- typical tests and procedures
- workplace and/or legal traceability requirements
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and workplace requirements specific to the work task.

## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - a standard laboratory equipped with appropriate sample preparation and test equipment/instruments, standards and materials
  - workplace procedures and standard methods
  - records, including test and calibration results; equipment use, maintenance and servicing history, and faulty or unsafe equipment.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet -

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