



**Australian Government**

**Assessment Requirements for MSL975067  
Perform complex tests to measure chemical  
properties of materials**

**Release: 1**

# Assessment Requirements for MSL975067 Perform complex tests to measure chemical properties of materials

## Modification History

Release 1. Supersedes and equivalent to MSL975046 Perform complex tests to measure chemical properties of materials. Element 6 integrated into Element 5. Minor changes to Performance Criteria. Removal of duplicating items in Knowledge Evidence.

## Performance Evidence

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

- isolated analytes from 3 different complex matrices and performed multi-staged and/or multi-component analysis on each.
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## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- principles and concepts underpinning the analysis:
  - nature of specific sample matrices
  - effects of interferences with analyte behaviour, including ionisation, complexation, precipitation, masking and association
  - quantification methods
  - chemical and physical treatments to minimise interferences
- special needs for sample treatment or pre-treatment
- function of key components of equipment and effects of modifying instrumental variables on outputs and results
- typical analytes and samples requiring complex tests
- typical tests for completeness of sample preparation:
  - visual inspection for colour and solids
  - odour
  - pH and conductivity
  - chemical tests for interferences, such as precipitation and colour forming
  - basic screening instrumental tests
- application of chemical modifiers
- sample preparation procedures used for analyses
- basic equipment maintenance procedures
- calculation steps to give results in appropriate units, precision and uncertainty
- awareness of environmental sustainability issues as they relate to the work task

- legal, ethical and work health and safety (WHS) requirements specific to the work task including traceability, confidentiality and security requirements of all client information, and laboratory data and records.
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## 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
  - specialised analytical instruments, laboratory reagents and equipment
  - workplace procedures and test methods.

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>