



**Australian Government**

# **Assessment Requirements for MSL973026**

## **Prepare working solutions**

**Release: 1**

# Assessment Requirements for MSL973026 Prepare working solutions

## Modification History

Release 1. Supersedes and equivalent to MSL973014 Prepare working solutions. Very minor changes to Performance Criteria. Clarification provided in Performance Evidence about what constitutes a different solution. Changes to Knowledge Evidence for clarity and to provide information about required scope and depth of knowledge required.

## Performance Evidence

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

- safely prepared at least 5 different correctly labelled working solutions, including calculation of the quantities involved and any dilutions required (note: the 5 different solutions may be different because of substance, concentration or method of preparation)
- checked existing stocks of working solutions and identified those unfit for use.
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## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- basic measurement concepts, including repeatability, precision, accuracy and significant figures
- working solutions prepared in the job role, including:
  - purpose
  - common names
  - chemical formulae
  - preparation procedures
- international system of units (SI)
- concentration terms, including % w/w, % w/v, % v/v, ppm (mg/L) and molarity
- basic features of acids, bases, salts, buffers and neutralisation
- what affects solubility
- difference between aqueous and organic solutions
- basic aspects of the periodic table, including:
  - what it is
  - what information it can provide and how that information can be used
  - symbol system
  - difference between elements and compounds
- calculations required to prepare specified amounts of solutions of specified concentration

- use of safety data sheets (SDS) and workplace procedures for preparing, handling and disposing of solutions and cleaning up spillages
- environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task.
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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 equipped with appropriate reagents and equipment
  - containers and storage facilities
  - workplace procedures.

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>