



**Australian Government**

# **Assessment Requirements for MSL973016**

## **Perform aseptic techniques**

**Release: 1**

# Assessment Requirements for MSL973016 Perform aseptic techniques

## Modification History

Release	Comments
Release 1	<p>This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>.</p> <p>Supersedes and equivalent to MSL973004 Perform aseptic techniques. Changes to performance criteria. Range of conditions removed. Assessment requirements amended.</p>

## 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 effectively performed aseptic techniques when performing at least 3 different types of sample transfers from the following list:
  - body fluids (or simulated body fluids)
  - sterile liquid culture media
  - water
  - soil
  - sterile pharmaceuticals
  - yeasts and moulds
  - milk and yoghurt
  - swabs and smears
  - propagation tissue
  - plant material
  - fermented foods
  - fermented beverages
  - bacterial cultures.

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- growth requirements of microorganisms including bacteria and fungi in terms of their laboratory culture

- relationship between sterile practices, hygiene procedures and the ability to obtain growth free of contamination
- relationship between sterile practices and accurate test results
- importance of pure culture techniques and aseptic transfer to the successful microbiological investigation and correct interpretation of laboratory results
- cleaning and sanitising requirements of equipment and work area, and effects of physical and chemical agents on microbial growth and death
- sterilisation techniques:
  - flaming
  - high temperature, boiling and autoclaving
  - membrane filtration
  - radiation, gas and/or chemical treatments
- disinfection and sterilisation procedures used in the collection, processing and safe disposal of samples and materials
- principles of infection control related to work health and safety (WHS), and sampling and transfer of materials in microbiological investigations including how to minimise the generation of aerosols when flaming
- relevant hazards and how to deal with the risks presented:
  - injuries from sharps, burners, molten agar
  - ultraviolet (UV) light sources
  - exposure to hazardous substances and/or infectious agents
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and WHS 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
  - test samples
  - appropriate equipment, including:
    - transfer equipment, such as inoculating loops, pipettes (quantitative and qualitative), flasks, tubes and spatulas
    - Sterilisation equipment such as bunsen burners, bench incinerators, autoclave and/or pressure cooker
    - Storage equipment such as incubators, water baths, refrigerators, freezers, anaerobic jars as required
    - laminar flow units or biohazard cabinets as required
    - swabs
  - appropriate materials, including:

- solid and/or liquid media
- disinfecting and sterilising agents
- consumables
- receptacles for safe disposal of wastes and for processing of reusable materials
- bar coding material and labels
- workplace schedules, procedures and standard methods, SDS and documented safe work practices.

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>