



Australian Government

MSL973004 Perform aseptic techniques

Release: 1

MSL973004 Perform aseptic techniques

Modification History

Release 1. Supersedes and is equivalent to MSL973004A Perform aseptic techniques

Application

This unit of competency covers the ability to perform aseptic techniques to maintain the integrity of both the sample source and the sample. It applies to sampling techniques in tissue culture and to generic microbiological procedures.

This unit of competency is applicable to laboratory assistants and technicians working in the field or laboratory in the biomedical, biological, food processing and environmental industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked

Pre-requisite Unit

Nil

Competency Field

Testing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|---|
| 1 Prepare for aseptic sampling or transfer | <div style="display: flex; flex-direction: column; gap: 10px;"><div>1.1 Ensure that any sampling procedure conforms with the requirements of the sampling plan</div><div>1.2 Use specified personal protective equipment (PPE)</div><div>1.3 Prepare the work area for safe and effective sample transfer</div><div>1.4 Select equipment and materials specified by the procedure</div><div>1.5 Organise equipment to minimise contamination during</div></div> |
|---|---|

		manipulations
	1.6	Label containers for clear identification
	1.7	Record details in relevant log or database
2	Transfer materials aseptically	<p>2.1 Protect the integrity of the sample source by sterilising the sampling site and the mouth of transport or culture vessel</p> <p>2.2 Sterilise inoculating loops and/or pipette where used to prevent contamination</p> <p>2.3 Perform transfer while minimising opportunities for contamination and cross-infection</p> <p>2.4 After transfer, and before sealing the transport or culture vessel, flame the vessel mouth to maintain sterility</p> <p>2.5 Re-sterilise inoculating loops, minimising the generation of aerosols</p> <p>2.6 Perform quality control checks as required</p> <p>2.7 Label transport or culture vessels for clear identification</p>
3	Maintain work area and equipment to prevent cross-infection and contamination	<p>3.1 Place disposable and reusable items into relevant receptacles</p> <p>3.2 Clean and disinfect work area and equipment after use</p> <p>3.3 Transport disposable and reusable contaminated materials to relevant areas for disinfection, sterilisation and cleaning or disposal</p>

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety, quality management and environmental management
- Australian standards covering the requirements for occupational personal protection; cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment; and maintenance of associated environments in health care facilities
- national work health and safety (WHS) standards and codes of practice, national environmental protection measures, and national measurement regulations and guidelines
- specific codes, guidelines and procedures, such as National Association of Testing Authorities (NATA) accreditation requirements, principles of good laboratory practice (GLP), Australia New Zealand Food Standards (ANZFS) Code, Australian code of good manufacturing practice for medicinal products (GMP), Australian Dangerous Goods Code and labelling of workplace substances
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS); safety procedures; material, client and product specifications; production and laboratory schedules; workplace recording and reporting procedures; and waste minimisation and safe disposal procedures
- workplace procedures and standard methods for preparing culture media, and operation and maintenance manuals for automated media preparation equipment

PPE

PPE includes, but is not limited to, one or more of:

- gloves, safety glasses, goggles, face guards, coveralls, gowns, body suits and respirators
- biohazard containers and laminar flow cabinets

Sample pot and transfer media and the subculturing and/or passaging of culture	<p>Sample pot and transfer media and the subculturing and/or passaging of culture to include, but are not limited to, one or more of:</p> <ul style="list-style-type: none">• sterile broth• media for isolation of colony• tissue culture media• media for continuous culture systems
Samples	<p>Samples include, but are not limited to, one or more of:</p> <ul style="list-style-type: none">• body fluids and liquids• water and soil• sterile pharmaceuticals• yeasts and moulds• milk and yoghurt• swabs and smears• propagation tissue• plant material• fermented foods and beverages
Sterilisation techniques	<p>Sterilisation techniques include, but are not limited to, one or more of:</p> <ul style="list-style-type: none">• flaming• high temperature, high pressure steam, boiling and autoclaving• steam and membrane filtration• microwave, radiation, gas and/or chemical treatments
WHS and environmental management requirements	<p>WHS and environmental management requirements include:</p> <ul style="list-style-type: none">• complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time• applying standard precautions relating to the potentially hazardous nature of samples• accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSL973004A Perform aseptic techniques

Links

Companion Volume implementation guides are found in VETNet -

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