



Australian Government

Assessment Requirements for MSL975065 Apply electrophoretic techniques

Release: 1

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Modification History

Release 1. Supersedes and equivalent to MSL975039 Apply electrophoretic techniques. Content of Element 6 integrated into Element 5. Minor changes to Performance Criteria. Requirement to prepare samples using three different processes removed from Performance Evidence. Duplicating items removed from 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:

- analysed at least 3 different samples in 3 different assays using electrophoretic techniques to obtain valid and reliable data.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- electrophoretic principles and concepts related to instrumentation operation, material preparation and testing
- details of electrophoresis techniques used to analyse samples relevant to job role
- handling of unstable or hazardous chemicals or samples and/or the fragile/labile nature of biological material
- function of key components of the equipment and effects on results of modifying instrumental variables, including field strength, constant current and constant power
- procedures for optimising separation through changing operation parameters, including buffers, pH and detection methods
- common analytical procedure and equipment problems and troubleshooting procedures, including those related to:
 - interfering substances
 - inappropriate support material or operating procedures
 - toxic or hazardous materials, including impurities in samples
 - lack of suitable or high purity reference standards
 - changes in operating variables, such as field strength, constant current, constant power, buffers and pH
 - obtaining adequate sample volume
- principles and purpose of test methods implemented (why they are used and what they demonstrate)
- technological advances that include automation
- calculation steps to give results in appropriate accuracy, precision, uncertainty and units

- typical test methods
- basic equipment maintenance procedures
- 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 equipped with routine electrophoresis equipment, laboratory reagents and equipment
 - workplace procedures and testing 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>