



Australian Government

Assessment Requirements for MSL977008

Develop or adapt analyses and procedures

Release: 1

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Modification History

Release	Comments
Release 1	This version was released in <i>MSL Laboratory Operations Training Package Release 2.0</i>. Supersedes and equivalent to MSL977004 Develop or adapt analyses and procedures. Range of conditions removed. Assessment requirements amended. Prerequisites updated. Equivalent outcome.

Performance Evidence

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

- developed or adapted a method of analysis of an item or process, and all related methods and procedures to meet workplace and regulatory requirements, for at least 1 of the following tests:
 - non-instrumental methods:
 - gravimetric test
 - titrimetric test
 - qualitative test
 - spectrometric methods:
 - ultraviolet-visible (UV-VIS)
 - infrared (IR) (including Fourier transform infrared (FTIR))
 - near infrared (NIR)
 - atomic absorption (AA) and fluorescence)
 - chromatographic methods:
 - thin layer chromatography
 - paper chromatography
 - gas chromatography (GC)
 - high performance liquid chromatography (HPLC)
 - ion chromatography (IC)
 - electrophoretic test

- electrochemical methods:
 - ion-selective electrodes
 - polarographic test
- assays based on biological properties or cell properties for enzyme antibody activity
- tests based on any complex method.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- concepts relating to method and procedure development, including:
 - determining and defining development objectives
 - relating chemical and physical characteristic of sample to possible assay methods
 - evaluating criteria to choose appropriate analytical method
 - sample clean-up and preparation techniques
 - preparation, set-up and calibration of testing equipment
 - choice of appropriate detection system ensuring accuracy/precision criteria are achieved
 - optimisation of analysis conditions
- criteria for choice of method/procedure, including:
 - economic factors
 - safety considerations
 - resource factors, including equipment and personnel
 - regulatory, accreditation and registration considerations
- detailed theoretical and practical basis of tests/analyses relevant to job role
- operating principles and practices and characteristics, capabilities and limitations of testing equipment used
- relative advantages and disadvantages of different testing methods
- reasons for new methods of analysis and related procedures being developed:
 - analysis of raw materials
 - quality control or evaluation of the stability of products
 - quality control or evaluation of the stability of new formulations of existing products
 - introduction of new technology
 - to meet regulatory requirements
- procedures and requirements for method and procedure development, validation and approval
- 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.

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 equipment, instruments, reagents, samples and test methods, and SOPs
 - online data search facilities.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Training Package Companion Volumes -

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