



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MSAPMSUP292A Sample and test materials and product**

**Revision Number: 1**

## **MSAPMSUP292A Sample and test materials and product**

### **Modification History**

Not applicable.

### **Unit Descriptor**

#### **Unit descriptor**

This competency covers the taking of routine samples and the conducting of simple tests.

### **Application of the Unit**

#### **Application of this unit**

This competency applies to operators who are required to undertake the routine sampling and testing in the workplace. Testing will typically also be done in the workplace or in a 'factory laboratory' (or bench) adjacent to/in the factory. Tests will be simple, routine tests to procedure. This competency is typically performed by operators working either independently or as part of a work team. The operator:

- takes the sample
- performs the test
- makes a simple interpretation of the test results
- takes actions specified based on the test results
- completes logs and reports.

More advanced sampling and testing should use the relevant units from *PML04 Laboratory Operations Training Package*.

### **Licensing/Regulatory Information**

Not applicable.

## Pre-Requisites

### Prerequisites

This unit has **no** prerequisites.

## Employability Skills Information

### Employability Skills

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

## Elements and Performance Criteria

<b>ELEMENT</b> <b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b> Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Take sample.	1.1 Determine type of sample and sampling equipment required. 1.2 Check sampling equipment is clean and in good order. 1.3 Take sample(s) of required type(s), from the required place(s) and at the required time(s) and place in required container(s). 1.4 Label sample(s) to procedure. 1.5 Carry sample(s) to required place.
2. Complete test.	2.1 Check test required from procedures/work instruction. 2.2 Check sample identification and integrity. 2.3 Check test equipment is clean, in good order and within calibration. 2.4 Complete test(s) required as per standard procedures/instructions.
3. Interpret results and take action.	3.1 Note anything about sample, equipment or the test itself which may have caused it to give a bad result. 3.2 Compare results to specification. 3.3 Take action appropriate to the test results and any other observations.
4. Complete sample and test cycle.	4.1 Complete required records. 4.2 Store and/or dispose of sample as required. 4.3 Clean all equipment and leave ready for next sample/test.

## Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Application of knowledge of the sampling and testing techniques used sufficient to recognise a suspicious test result cause by a fault in these areas.

Knowledge of organisation procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards.

Knowledge and skills in sampling and testing sufficient for consistent and meaningful test results including:

- basic principles of taking the particular sample
- basic principles of the particular test
- sample techniques and requirements
- test methods used and critical factors leading to good/poor test results.

### Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical sampling and testing methods/procedures and to read and interpret numbers or other test result data.

Writing is required to the level of completing workplace forms and labelling samples.

Basic numeracy is required to read and interpret test results and undertake minor data manipulation such as might be required for the test, test interpretation or reporting.

## Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

### Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- take a sample correctly
- undertake tests with adequate reproducibility
- select and use the appropriate procedures.

### Assessment method and context

Assessment will occur in a factory testing environment and will be undertaken in a work-like environment.

Competence in this unit may be assessed:

- by using appropriate, industrial testing regimes
- in a situation allowing the generation of evidence of the ability to respond to problems
- by using a suitable simulation and/or a range of case studies/scenarios

- through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

### **Specific resources for assessment**

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent they form part of the assessment method.

Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

## **Range Statement**

### **RANGE STATEMENT**

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that will affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

### **Context**

This competency unit includes the range of sampling and testing which may be carried out in a plant/factory, or in a manufacturing laboratory. It typically applies to operators who carry out a narrow range of tests as part of their job.

It does NOT include testing which would normally be conducted in a laboratory, nor operators carrying out a wide range of testing which is a significant part of their job role.

These competencies are more properly covered by *PMLTEST300A Perform basic tests* or other units from the Laboratory Operations Training Package.

The tasks covered by this competency include:

- receiving, handling and storing samples
- preparing for sample collection
- performing sample collection
- performing sample preparation
- performing tests
- recording results.

### **Problems**

'Respond to routine problems' means 'apply known solutions to a limited range of predictable problems'. Typical problems include:

- correct sampling technique
- test equipment condition/calibration
- consistent test technique according to standard procedure
- correct recording of result
- interpretation of result and the initiation of appropriate action
- correct retention/disposal of sample/test materials.
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## **Unit Sector(s)**

Not applicable.