



Australian Government

DEFEO716C Test for explosive substances

Release: 2

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Modification History

Release	TP version	Comments
2	DEF12 V2	Layout adjusted.
1	DEF12 V1	First release.

Unit Descriptor

This unit covers the competency required to conduct material testing to determine the presence of an explosive substance.

Application of the Unit

This competency normally applies to the individual who is required to conduct material testing to determine the presence of an explosive substance.

It encompasses the requirements for planning tests, carrying out tests, performing analysis, and recording and reporting test results.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Plan and prepare for testing

- 1.1 Requirement for substances testing is identified from work requests/instructions and is confirmed
- 1.2 Work health and safety (WHS) requirements, including those contained in ***organisational*** procedures, are applied throughout the operation
- 1.3 ***Appropriate testing methods*** are selected in accordance with organisational procedures
- 1.4 ***Technical references, testing tools and equipment*** required for gauging are identified, acquired and prepared in accordance with organisational procedures
- 1.5 Test site is prepared and secured in accordance with organisational procedures
- 1.6 ***Substances*** to be tested are acquired, prepared, moved and positioned in preparation for the task

2. Conduct tests

- 2.1 Tests to observe properties of the substances are performed in accordance with established procedures
- 2.2 Test results are compared with standards, charts and tables in order to identify known or unknown materials
- 2.3 Emergency and contingency procedures are applied in accordance with organisational policy

3. Finalise the testing procedures

- 3.1 ***Sentencing action*** is determined and carried out in accordance with organisational procedures
- 3.2 Documentation, records and related reports are completed and maintained in accordance with statutory, and organisational policy and procedures

Required Skills and Knowledge

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

Required Skills

- apply analysis techniques
- apply safety policies and structures
- apply testing techniques and processes
- maintain documentation
- read, access, interpret and apply technical instructions and drawings related to explosive substance testing
- use testing tools and equipment

Required Knowledge

- characteristics and limitations of testing equipment
- explosive chemical processes
- organisational documentation requirements
- organisational safety information sources
- organisational safety policies and structures
- properties and characteristics of explosives
- properties and characteristics of testing chemicals
- validation processes

Evidence Guide

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

Assessment must confirm the ability to comply with:

- organisational safety requirements
- appropriate legislative and regulatory requirements

Assessment must confirm the ability to:

- confirm the presence or absence of explosive substances upon completion of testing
- work safely within an explosive ordnance environment

Consistency in performance

Competency should be demonstrated in a range of actual or simulated explosive substance testing contexts.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated workplace environment, in accordance with all relevant legislation and organisational requirements.

Specific resources for assessment

Access is required to:

- facilities and resources used in testing explosive substances

Method of assessment

This unit may be assessed with the following unit:

- DEFEO101D Work safely with explosive ordnance

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

Range Statement

<p>The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. <i>Bold italicised</i> wording in the Performance Criteria is detailed below.</p>	
<p><i>Organisation</i> may include:</p>	<ul style="list-style-type: none"> • Defence organisation • Enterprises that work with explosive ordnance • Other government departments or instrumentalities that work with explosive ordnance
<p><i>Appropriate testing methods</i> may include:</p>	<ul style="list-style-type: none"> • Chemical testing • Spectra analysis
<p><i>Technical references</i> may include:</p>	<ul style="list-style-type: none"> • Orders and instructions • Technical drawings • Technical reference pamphlets • Other publications
<p><i>Testing tools and equipment</i> may include:</p>	<ul style="list-style-type: none"> • Apparatus which may include: <ul style="list-style-type: none"> • eye droppers • litmus paper • petri dishes • spatulas • swabs • test tubes • Chemicals which may include: <ul style="list-style-type: none"> • hydrochloric acid • sulphuric acid • Photographic equipment
<p><i>Substances</i> may include:</p>	<ul style="list-style-type: none"> • Product of extrusion • Product of exudation • Any suspect substance requiring testing
<p><i>Sentencing action</i> may include:</p>	<ul style="list-style-type: none"> • Determining the condition status of the store from which the substance was collected

Unit Sector(s)

Not applicable.