

<b>Title</b>	<b>Demonstrate knowledge of minimising contamination risk in a microbiological laboratory</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe the necessity for cleaning and sanitising a microbiological laboratory; explain the critical factors for cleaning and sanitising; and describe cleaning agents and sanitisers and their mode of action.
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<b>Classification</b>	Science > Microbiology
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 All work must be carried out in accordance with the quality management system, documented protocol system or Standard Operating Procedures acceptable in a commercial or research laboratory.
- 2 Health and Safety practices must conform to Australian/New Zealand Standard AS/NZS 2243 – *Safety in Laboratories* Parts 1, 2, 3, 7 and 10 available at <http://www.standards.co.nz>.
- 3 Legislation applicable to this unit standard includes:  
Health and Safety at Work Act 2015;  
Hazardous Substances and New Organisms Act 1996.
- 4 Glossary  
*Soil* refers to contaminants or a mixture of contaminants.

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### Outcomes and performance criteria

#### Outcome 1

Describe the necessity for cleaning and sanitising a microbiological laboratory.

#### Performance criteria

- 1.1 The importance of cleaning is explained in terms of public health and product quality.
- 1.2 Potential sources of soil that may promote microbiological growth are described in terms of public health and product quality.

- 1.3 Links between microbial contaminants, environment, and type of soil are described in terms of public health and product quality.

## Outcome 2

Explain the critical factors for cleaning and sanitising.

Range critical factors include – soil type, surface type to be cleaned, exposure time, use for surface, environmental factors.

### Performance criteria

- 2.1 The critical factors are considered in selecting the cleaning and sanitising regime.
- 2.2 The importance of the critical factors is explained in terms of the selecting a cleaning and sanitising regime.

## Outcome 3

Describe cleaning agents and sanitisers and their mode of action.

### Performance criteria

- 3.1 The purposes of sanitisers are described in terms of their action on microorganisms.
- Range sanitisers – microbiocidal, microbiostatic, disinfectants, cleaners.
- 3.2 Modes of action and activity of cleaning agents are described in relation to microorganisms.
- Range cleaning agents include – acidic and alkaline cleaners; non-ionic, anionic and cationic surfactants; oxidising agents.
- 3.3 Negative effects are described in terms of the interactions between different cleaning agents.
- Range cleaning agents include – acidic and alkaline cleaners; non-ionic, anionic and cationic surfactants; oxidising agents.

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**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	17 February 1998	31 December 2014
Review	2	23 November 1999	31 December 2014
Review	3	21 May 2010	31 December 2025
Rollover	4	27 January 2015	31 December 2025
Review	5	27 September 2018	31 December 2025
Review	6	30 November 2023	31 December 2025

**Consent and Moderation Requirements (CMR) reference**

0113

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.