

Title	Demonstrate knowledge of health, safety, and environmental requirements of roadmarking operations		
Level	3	Credits	7

Purpose	<p>This unit standard is designed for people working in the roadmarking industry.</p> <p>People credited with this unit standard are able to demonstrate knowledge of health and safety requirements for roadmarking operations; describe environmental resource management procedures in the roadmarking industry; demonstrate knowledge of hazardous substances used in the application of paint and raised pavement markers (RPMs); and describe safety procedures for hazardous substances used in roadmarking.</p>
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Classification	Infrastructure Works > Roadmarking
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant industry requirements.
- 2 Legislation and standards relevant to this unit standard include:
 - Hazardous Substances and New Organisms Act 1996;
 - Health and Safety at Work Act 2015;
 - Health and Safety at Work (Hazardous Substances) Regulations 2017;
 - Resource Management Act 1991;
 - Traffic Regulations 1976; available from www.legislation.govt.nz/;
 - NZS 5433:2020 *Transport of dangerous goods on land*; available from <http://www.standards.co.nz/>;
 - and all subsequent amendments and replacements.
- 3 Definition

Industry requirements refer to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, scope of works, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, procedural documents, Waka Kotahi New Zealand Transport Agency specifications and guidelines.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of health and safety requirements for roadmarking operations.

Performance criteria

- 1.1 Responsibilities of the candidate for health and safety are described.
- Range accident reports and safety procedures.
- 1.2 Locations of vehicle safety features and resources are identified.
- Range vehicle safety features and resources include but are not limited to – fire extinguisher, shut-off mechanisms, first aid kit, emergency procedures, safety data sheets (SDS).
- 1.3 Personal protective equipment is described in terms of appropriateness for task and for the materials and equipment being used.
- Range RPM installation, applying roadmarking materials, roadwork.
- 1.4 The identification and reporting of hazards is described.
- 1.5 Hazardous substances likely to be encountered in the course of roadmarking activities are identified and their labelling, storage, and handling requirements are described in accordance with legislation and material supplier instructions.

Outcome 2

Describe environmental resource management procedures in the roadmarking industry.

Performance criteria

- 2.1 Roadmarking operations are described in terms of risks to the environment.
- 2.2 Procedures for maintaining environmental resource management requirements are described.
- Range spillages, noise, dust, watercourse protection.
- 2.3 Reporting procedures for environmental resource management requirements are described in accordance with legislation and regulations.

Outcome 3

Demonstrate knowledge of hazardous substances used in the application of paint and RPMs.

Performance criteria

- 3.1 Paints and a thinner currently used for roadmarking are described in terms of their properties in accordance with material supplier instructions.
- 3.2 Flammable liquids and hazardous materials used on a roadmarking worksite are identified and described in terms of their properties.
- 3.3 Heated materials and fuels used on a roadmarking worksite are described in terms of their hazards in accordance with material supplier instructions.
- Range RPM adhesives, Liquid Petroleum Gas (LPG), heating oils.
- 3.4 Chemicals used on a roadmarking worksite are described in terms of their toxicity and safe handling in accordance with material supplier instructions.
- Range may include but is not limited to – solvents, solvent-based (yellow) paints, etching acids, ammonia; evidence of two chemicals is required.
- 3.5 Placarding requirements for a roadmarking worksite are described in terms of handling, storage and transport of hazardous substances.
- 3.6 Pressurised materials are identified and described in terms of safe handling procedures in accordance with material supplier instructions.
- Range materials may include but are not limited to – paint, thinners, beads, hydraulics, LPG; procedures – injection, skin contact; evidence of two materials and two procedures is required.
- 3.7 Hazardous substances used by the candidate in roadmarking are described in terms of the effect of temperature and moisture.
- Range paint, thinner, flammable liquid, heated product, pressurised material.

Outcome 4

Describe safety procedures for hazardous substances used in roadmarking.

Performance criteria

- 4.1 Procedures in the event of personal injury are described.
- Range skin contact, injection of paint or solvent, inhalation, poisoning, vehicle impact.
- 4.2 Procedures in the event of spillage are described.
- Range emergency shutdown, containment.

4.3 Procedures in the event of fire and explosion are described.

4.4 Procedures in the event of a vehicle collision are described.

Replacement information	This unit standard and unit standard 21429 replaced unit standard 15928.
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Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	22 September 2005	31 December 2018
Review	2	20 April 2017	31 December 2023
Review	3	30 September 2021	N/A

Consent and Moderation Requirements (CMR) reference	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Connexis - Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.