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| Title | Deal with hazardous materials in an electronic manufacturing environment | | |
| Level | 3 | Credits | 10 |

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| Purpose | <p>This unit standard covers the safe identification, handling, and disposal of hazardous materials used in an electronic manufacturing environment.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> –identify hazardous materials; –explain the contents of a safety data sheet; –move and store hazardous materials; and –handle and dispose of hazardous materials. |
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| Classification | Electronic Engineering > Electronic Manufacturing |
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| Available grade | Achieved |
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Guidance Information

1 Definition

hazardous material – all materials classed as dangerous goods by the Hazardous Substances and New Organisms Act 1996, and any other materials defined by the industry or enterprise as hazardous or dangerous in electronic manufacturing.

2 Range

- a range of storage and movement – limited to the storage and movement of the hazardous material in original manufacturer's packs or containers that meet specified enterprise requirements for the given material;
- b range of handling – limited to the transfer of the material to and from original manufacturer's packs to containers that meet specified enterprise requirements for the given material. It does not include the application or use of the material;
- c range of disposal – limited to conditions defined for disposal of given material provided by enterprise instructions;
- d range of materials – all of acids, alkalines, poisons, paints, solvents, fluxes, solders, gases, metals, inflammable materials, and liquids. Evidence is required of three material types.

3 References

Hazardous Substances and New Organisms Act 1996;
 Health and Safety in Employment Act 1992;
 ISBN: 0-477-03549-3, *Approved Code of Practice for Managing Hazards to Prevent Major Industrial Accidents*, Department of Labour. Occupational Safety and Health Service, 1994;

Material Safety Data Sheet (MSDS) specifications for the materials in the work environment;

Resource Management Act 1991.

- 4 The following apply to all outcomes of this unit standard:
- a all activities are to be completed and reported within agreed timeframes;
 - b all work practices must meet worksite's documented quality management requirements;
 - c all activities must comply with policies, procedures and requirements of the enterprises involved; and any relevant legislative and/or regulatory requirements, which include, but are not limited to, the Health and Safety in Employment Act 1992, the Hazardous Substances and New Organisms Act 1996, and the Resource Management Act 1991.

Outcomes and performance criteria

Outcome 1

Identify hazardous materials.

Performance criteria

- 1.1 The type of hazardous material is identified from hazardous symbol labels.

Range material types include – inflammable, corrosive, poisonous, radioactive.
Evidence is required for three hazardous material types.

- 1.2 The essential characteristics of a given hazardous material are identified from hazardous material labelling.

Range characteristics include – name, hazardous properties, handling, storage, disposal requirements.
Evidence is required for three hazardous material examples.

- 1.3 The identification process confirms the safety status of the hazardous material.

Range safety status includes – storage location, packaging integrity, spills or leakage.
Evidence is required for two of these items.

Outcome 2

Explain the contents of a safety data sheet.

Performance criteria

- 2.1 Explanation of a material safety data sheet (MSDS) contents or equivalent, demonstrates comprehension of properties, hazards and handling requirements.

Range common name, chemical name if given, properties, specific health risks, protective clothing and/or equipment required when handling, method of containing spill or leakage, waste disposal method.

- 2.2 Explanation provides an interpretation of the MSDS contents in the context of given workplace operational and safety procedures.

Range includes evacuation procedure, availability of safety equipment such as breathing apparatus, showers, eye wash, response to discovery of unlabelled or unidentified dangerous goods. Evidence is required for three hazardous material examples.

Outcome 3

Move and store hazardous materials.

Performance criteria

- 3.1 First aid responses are known for all hazardous materials moved more frequently than monthly.

Range typical responses could include those for – exposure, spill, contact, ingestion.

- 3.2 Movement or storage occurs only if packaging complies with enterprise procedures and MSDS requirements.

- 3.3 Movement method complies with enterprise and manufacturers' procedures.

- 3.4 Contingency plans are known for emergencies arising from the movement and storage of hazardous materials.

Range examples of emergencies could include – exposure, leakage, spillage, fumes, fire, explosions, evacuation of personnel. Evidence is required for three hazardous material examples.

Outcome 4

Handle and dispose of hazardous materials.

Performance criteria

4.1 First aid responses are known for all hazardous materials handled more frequently than monthly.

Range typical responses could include those for – exposure, spill, contact, ingestion.

4.2 Handling occurs only with protective equipment specified by enterprise and manufacturers' procedures.

Range examples of protective equipment include – eye equipment, clothing, breathing equipment, fume cupboard.
Evidence is required for three hazardous material examples.

4.3 The handling of the materials complies with enterprise and manufacturers' procedures.

Range handling includes – equipment and tool selection, opening, closing, material transfer, measurement, weighing, container selection and labelling, cleaning up.
Evidence is required for three hazardous material examples.

4.4 The disposal of materials complies with enterprise and manufacturers' procedures.

Range disposal includes – material, contaminated containers, related materials, labelling, storage.
Evidence is required for three hazardous material examples.

4.5 Procedures for dealing with emergencies arising from handling and disposal of hazardous materials are known.

Range examples of emergencies could include – exposure, leakage, spillage, fumes, fire, explosions, evacuation of personnel.
Evidence is required for three hazardous material examples.

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 | 24 February 1998 | 31 December 2021 |
| Review | 2 | 28 June 1999 | 31 December 2021 |
| Revision | 3 | 3 April 2001 | 31 December 2021 |
| Review | 4 | 23 November 2003 | 31 December 2021 |
| Rollover and Revision | 5 | 19 March 2010 | 31 December 2021 |
| Review | 6 | 26 July 2018 | 31 December 2021 |

Consent and Moderation Requirements (CMR) reference

0003

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