



Australian Government

Department of Education, Employment and Workplace Relations

RTC4703A Plan and implement a chemical use program

Release: 1

RTC4703A Plan and implement a chemical use program

Modification History

Not applicable.

Unit Descriptor

This competency standard covers the process of planning and implementing a program for the use of chemicals in a workplace. It involves using chemicals as well as supervising others in the use of chemicals concerned, and the ability to modify application requirements as needed. It involves decision making in regards to the risk control measures to be applied when using chemicals in different situations, monitoring safety procedures, and ensuring that others are trained sufficiently in the use of the chemical concerned. It involves the selection and management of chemical application systems.

NB: This competency standard may be deemed to have a time limit when used as part of an accreditation or licence to purchase or use chemicals.

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Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Identify the requirements of chemical use	1.1 Chemical use requirements relevant to the workplace are accessed and interpreted. 1.2 Legalisation and safety procedures surrounding the use of chemicals are accessed and interpreted. 1.3 Personal protective equipment is used and provided to others for transport, storage and application of chemicals. 1.4 Industry standards for chemical use are identified. 1.5 Appropriate insurance policy cover is confirmed or arranged.
2 Monitor the implementation of safety requirements	2.1 Implementation of safety practices and rules by others is monitored. 2.2 Safety incidents are investigated and reported in accordance with directions, standards and legislative requirements. 2.3 Safety hazards in the transport, storage and application of the chemicals are identified. 2.4 Risk control measures to minimise risk involved in chemical use. 2.5 Measures for controlling residue in the environment and produce are implemented.
3 Plan and implement a maintenance program for chemical use equipment	3.1 Plan for maintenance of application and personal protective equipment is established according to manufacturers instructions. 3.2 Implementation of maintenance plan is supervised. 3.3 Faulty or damaged equipment is identified and repaired or replaced.

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| 4 | Determine the suitability of a chemical for use in a control program | 4.1 Integrated Pest Management (IPM) or Animal Health Strategy (AHS) is planned. |
| | | 4.2 Chemicals included in the IPM or AHS are selected according to situation. |
| | | 4.3 Alternatives to chemical treatments are considered and applied according to IPM or AHS. |
| 5 | Ensure the correct selection and application of the chemical | 5.1 Chemicals suitable for situation are identified, and procedures for preparation, application and risk control are read and interpreted. |
| | | 5.2 Application equipment is selected in accordance with procedures. |
| | | 5.3 Ensure calibration of equipment is implemented according to directions and standards. |
| | | 5.4 Pre-operative checks and maintenance procedures are implemented. |
| | | 5.5 Meteorological conditions are assessed as appropriate to application prior to and during chemical application. |
| | | 5.6 Chemical application is conducted safely in accordance with hazards associated with the chemicals concerned. |
| | | 5.7 Chemical spills or accidents are dealt with according to procedures. |
| 6 | Ensure personnel are adequately trained in chemical use | 6.1 Training is provided to personnel who are handling or using chemicals. |
| | | 6.2 External training and assessment opportunities are organised for staff involved in using chemicals. |
| 7 | Supervise clean up following chemical application | 7.1 Clean up procedures are implemented following chemical applications. |
| 8 | Implement recording systems for chemical storage and use | 8.1 Records comply with legislation and regulations surrounding chemical use. |
| | | 8.2 Risk assessment and control strategies are recorded in accordance with requirements. |

Required Skills and Knowledge

Not applicable.

Evidence Guide

What evidence is required to demonstrate competence for this standard as a whole?

Overall competence in this standard requires evidence that a person can not only select, apply and clean up the application of a specific chemical, but also that they can supervise others working with the chemical, ensure that all prescribed safety directions are followed, and monitor the implementation of the systems and procedures developed for chemical concerned. The skills and knowledge in this standard should be **transferable** to other work contexts.

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

Hazards involved in the use of the specific chemical concerned and related risk control measures.

Signs of pest damage and signs of beneficial organisms.

Life cycle of pests and target stages.

Pest resistance to chemicals.

Types of chemical and modes of action.

Maximum residue limits.

OHS legislative requirements and Codes of Practice relevant to chemical use and hazardous substances.

Application equipment features.

Calibration.

Knowledge of record keeping systems.

Knowledge and understanding of relevant control of use Acts.

Use, maintenance and storage of personal protective equipment.

Correct wearing/fit of personal protective equipment.

First aid and emergency procedures.

Insurances required for chemical use, transportation and storage.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

Access, accurately read and interpret conditions and labels information for chemicals.

Communicate critical chemical information to others and ensure understanding.

Direct others to perform tasks.

Identifying hazardous situations.

What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

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| 1. How can communication of ideas and information (3) be applied? | Procedures, policies and safety information are communicated to others in the workplace. |
| 2. How can information be collected, analysed and organised (3) ? | Information on labels, MSDS and legislation need to be interpreted and analysed. |
| 3. How are activities planned and organised (3) ? | Overall organisation management will require activities to be planned in conjunction with chemical use. |
| 4. How can team work (3) be applied? | Working with others, internal and external to the organisation, requires teamwork. |
| 5. How can the use of mathematical ideas and techniques (2) be applied? | Calibration and calculation of equipment and chemicals requires mathematical techniques. |
| 6. How can problem-solving skills (2) be applied? | Identifying hazards and potential problems that may arise during chemical use and developing suitable solutions and risk control measures. |
| 7. How can the use of technology (2) be applied? | Technology may be required to record and manage chemical information. |

What are the special assessment conditions for this competency standard?

Where this competency standard is being used as part of an accreditation or licence for purchase or use of chemicals, the assessor must meet the requirements of the issuing body.

This may include:

1. Accreditation with that issuing body.
2. Maintenance of current competency in this competency standard.
3. Involvement in professional development programs comprising technical and legislative updates on an annual basis.

Are there other competency standards that could be assessed with this one?

This competency standard **could** be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.

Range Statement

Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

What **chemicals** may be relevant to this standard?

Chemicals may include insecticides, fungicides, herbicides, bactericides, algaecides, biologicals, nematocides, rodenticides, fumigants, antimicrobial agents, anthelmintics, hormone growth promotants or veterinary chemicals.

What **legislation and safety rules** may be relevant to this standard?

May include approved Pesticide Acts, OHS Acts regarding hazardous substances and application equipment, Dangerous Goods Act, Poisons Act or Protection of the Environment Acts for chemical use.

What **personal protective equipment** may be relevant to this standard?

May include boots, overalls, chemical resistant gloves, aprons, face shields, respirators and hats.

What **directions and standards** are relevant to this standard?

May include the instructions on the chemical label, in an operator's manual, on a Material Safety Data Sheets (MSDS), in an industry standard, from an OHS manual or other regulation, or a hazardous substances regulation.

What **hazards** may occur in the use of chemicals?

Hazards will be listed on labels and the MSDS for the chemical concerned and may include flammability, toxicity, health hazards, damage to non-target organisms, environmental damage, off target spray drift or residues in foods.

What **risk control measures** may be implemented and monitored as part of this standard?

Risk control measures that may be implemented include those relating to spillage, fire, contact of chemical with skin or eyes, accidental ingestion, incorrect concentrations in mixtures, faulty or inappropriate storage containers, current insurance policies, likelihood of run-off post application, incorrectly calibrated equipment, spray drift, incorrect disposal of waste chemicals or faulty equipment.

What **situation** may be relevant to this standard?

Situation may include weeds, insects, pathogens, and vertebrate animals.

What **application equipment** may be relevant to this standard?

May include hand held knapsacks or pneumatics, drench guns, spot on or power operated equipment like boomsprays, pressure wands or air blast sprayer, jetting race, hand jetting and shower/plunge dips.

What **meteorological conditions** might be assessed?

Rain, wind, temperature, relative humidity, inversion or stable air conditions.

What **external training and assessment** may be relevant to this standard?

Training may include formal training and assessment by a Registered Training Organisation (RTO) either on or off the job, or Recognition of Prior Learning process.

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

Unit Sector(s)

Not applicable.