



Australian Government

Department of Education, Employment and Workplace Relations

AHCCHM303A Prepare and apply chemicals

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of preparing and applying chemicals and defines the standard required to: assess the need for chemical use: comply with safety, chemical label and MSDS requirements; prepare an application/spray plan; prepare and apply chemicals; calibrate application equipment and maintain chemical records.
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Application of the Unit

Application of the unit	This unit covers the preparation and application of liquid chemical mixes and/or granular products for the control of weeds, pests and diseases across a range of industry sectors. This unit may be deemed to have a time limit when used as part of an accreditation or licence process.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Determine the need for chemical use	1.1. Nature and level of the pest, weed infestation or disease is identified. 1.2. Need for control is assessed. 1.3. The requirement for chemical use as an option within an integrated pest management strategy is assessed. 1.4. Hazard and risk analysis of different chemical options is undertaken. 1.5. Requirement for chemical application is identified and confirmed.
2. Prepare application/spray plan	2.1. Mixing rates for chemical is defined and calculated. 2.2. Application equipment type and set up requirements are determined for intended application. 2.3. The quantity of mix required is determined. 2.4. Meteorological conditions and forecasts prior to and during application are accessed. 2.5. An application/spray plan is completed. 2.6. Notify neighbours as required in accordance with industry practice or regulatory requirements
3. Prepare chemical mixes	3.1. Requirements from chemical labels and Material Safety Data Sheets (MSDSs) are interpreted and applied. 3.2. Appropriate first aid supplies are at hand. 3.3. Appropriate personal protective and mixing equipment is selected and used in accordance with MSDSs and chemical label. 3.4. A suitable location for mixing and loading is selected. 3.5. Chemicals are prepared in accordance with registered use. 3.6. MSDSs are followed in the event of a spill.
4. Calibrate application equipment	4.1. Pre-operational checks of application equipment are carried out. 4.2. Equipment is calibrated in accordance with manufacturer specifications and application/spray plan. 4.3. Calibration is checked for conformity to the requirements of the application/spray plan. 4.4. Chemical is loaded wearing appropriate Personal Protective Equipment (PPE) and controlling risks to human health and the environment.

ELEMENT	PERFORMANCE CRITERIA
5. Apply chemicals	5.1. Appropriate personnel protective equipment is selected and used in accordance with MSDSs and chemical label. 5.2. Chemical is applied in accordance with the application/spray plan and/or instructions and legislative and/or regulatory requirements. 5.3. Risks to others, product integrity and the environment are assessed and minimised.
6. Clean up equipment and complete records	6.1. Excess chemical is disposed of in accordance with label and MSDSs requirements. 6.2. Application equipment is cleaned and decontaminated. 6.3. Requirements for the disposal of unused chemical, containers spilled materials are determined and implemented 6.4. PPE and mixing equipment is cleaned and stored. 6.5. Incidents are reported as required in accordance with legislative and/or regulatory requirements. 6.6. All records, e.g. calibration, application, DG/hazard substances, risk assessments, are completed in accordance with legislative, industry and enterprise requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- identify hazards and implement risk control procedures
- identify appropriate treatment for pest, disease or weed
- mix and load chemicals
- conduct pre-operational checks of application equipment
- calibrate handheld and/or powered application equipment relevant to the industry sector
- interpret and apply chemical label requirements in the preparation of an application/spray plan
- apply chemicals

REQUIRED SKILLS AND KNOWLEDGE

- use and maintain PPE
- dispose of surplus chemical and containers
- record activities and maintain records
- use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- options for pest control based on Integrated Pest/Resistance Management principles
- plant, pest, weed and/or diseases relative to industry sector
- chemical label and MSDSs formats
- meteorological and other conditions and impacts on safe and effective chemical application
- types and application of personal protective equipment
- features, functions and calibration techniques for a range of hand held and/or powered application equipment relevant to the industry sector
- risk factors including human and animal health, weather, spray drift, spillage and environmental
- spray nozzle identification, selection, operation and use
- chemical mix including mixing order, adjuvants, water quality, efficacy etc
- application techniques for a range of equipment types
- requirements for disposal of excess chemicals, clearing spillages and equipment clean up
- legislation including Occupational Health and Safety (OHS) and environment, and licensing requirements, in relation to chemical use.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:</p> <ul style="list-style-type: none"> • assess the need for chemical use • comply with safety, chemical label and MSDSs requirements • prepare an application/spray plan • prepare and apply chemicals • calibrate application equipment • maintain chemical records
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Chemical types may include:	<ul style="list-style-type: none"> • all types of chemical mixes used in the control of pests, weeds and diseases including animal health products.
This unit does not cover:	<ul style="list-style-type: none"> • operation of specialised equipment and machinery transport • handling and storage of chemicals set up of advanced operation • specialised on-board control equipment.

Unit Sector(s)

Unit sector	Chemicals
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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