



Australian Government

Department of Education, Employment and Workplace Relations

FDFV3001A Conduct chemical wash for fresh produce

Revision Number: 1

FDFV3001A Conduct chemical wash for fresh produce

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to implement a wash process for fresh produce, where chemicals, such as chlorine, are used to achieve quality standards.
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Application of the Unit

Application of the unit	This unit has application in a food processing production environment. It typically targets the production worker responsible for setting and monitoring levels of cleaning chemicals, such as chlorine, while conducting wash operations. This unit typically applies for produce such as leafy greens and fruit where chemicals are used to ensure required cleaning outcomes.
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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

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Confirm required use of chemicals	1.1. Chemicals used for the washing of fresh produce are identified and required levels confirmed 1.2. Risks associated with using chemicals are identified and control measures implemented throughout operations 1.3. Implications of incorrect chemical levels on fresh produce are identified 1.4. Storage and handling requirements for chemicals are identified
2. Prepare for washing operation	2.1. Raw materials are confirmed and prepared for washing 2.2. Equipment is confirmed for operational readiness and components and related attachments fitted and adjusted as required 2.3. Pre-start checks are carried out as required by workplace requirements 2.4. Chemicals are measured and dose added according to specifications 2.5. Performance of chemical dosing equipment is checked to confirm accuracy 2.6. Water quality is checked and confirmed for use
3. Operate and monitor the washing process	3.1. The washing process is started and operated according to workplace procedures 3.2. Raw materials are inspected and washed to meet workplace specifications 3.3. Water is checked to confirm correct levels of chemicals 3.4. Washed materials are transferred for further processing or packaging 3.5. Variation in equipment operation is identified and maintenance requirements are reported according to workplace reporting requirements 3.6. Out-of-specification product/process outcomes are identified, rectified and/or reported to maintain the process within specification 3.7. The work area is maintained according to housekeeping standards 3.8. Work is conducted in accordance with workplace environmental guidelines 3.9. Workplace records are maintained according to

ELEMENT	PERFORMANCE CRITERIA
	workplace recording requirements
4. Shut down the washing process	4.1. The appropriate shutdown procedure is implemented 4.2. Chemicals are handled, stored and disposed of according to workplace environmental standards 4.3. Maintenance requirements are identified and reported according to workplace reporting requirements

Required Skills and Knowledge

Required knowledge

Knowledge of:

- purpose and basic principles of the washing process, including the importance of water quality and the role of chemicals in the washing process
- basic operating principles of equipment, such as main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services (principally water) required and action to take if services are not available
- the flow of this process and the effect of outputs on downstream processes
- quality characteristics to be achieved by the washing, including the consequences of out-of-specification moisture levels on further processing and final product
- quality requirements of raw materials and effect of variation on process performance, including how variation in microbial load can affect the washing process
- operating requirements, parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems
- methods used to monitor the washing process, such as inspecting, measuring and testing as required by the process
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the process and related control measures
- common causes of variation and corrective action required
- occupational health and safety (OHS) hazards and controls
- requirements of different shutdowns as appropriate to the process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock out and tag out procedures and responsibilities
- product/process changeover procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment
- sampling and testing associated with process monitoring and control where relevant
- routine maintenance procedures where relevant
- cleaning and sanitation procedures where relevant

Evidence Guide

EVIDENCE GUIDE	
<p>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.</p>	
<p>Overview of assessment</p>	<p>Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Evidence of ability to:</p> <ul style="list-style-type: none"> • conduct pre-start checks on machinery used for washing • handle and apply chemicals according to specifications • start, operate, monitor and adjust process equipment to achieve required quality outcomes • conduct water and chemical checks • take corrective action in response to typical faults and inconsistencies • complete workplace records as required • apply safe work practices and identify OHS hazards and controls • safely shut down equipment • apply food safety procedures.
<p>Context of and specific resources for assessment</p>	<p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • personal protective clothing and equipment • work procedures, including advice on safe work practices, food safety, quality and environmental requirements • information on equipment capacity and operating parameters • production schedule/batch instructions • specifications and inspection or control points • washing equipment and services, including water and chemicals • raw materials to be processed • sampling schedules and test procedures and equipment as required

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • documentation and recording requirements and procedures • cleaning procedures, materials and equipment as required.
Method of assessment	<p>This unit should be assessed together with core units and other units of competency relevant to the function or work role. Examples could be:</p> <ul style="list-style-type: none"> • FDFOP2003A Clean equipment in place • FDFOP2004A Clean and sanitise equipment • FDFOP2011A Conduct routine maintenance • FDFOP2013A Apply sampling procedures • FDFOP2030A Operate a process control interface • MSL973001A Perform basic tests.
Guidance information for assessment	<p>To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	Work is carried out according to company policies and procedures, regulatory and licensing requirements, legislative requirements, and industrial awards and agreements
Legislative requirements	<p>Legislative requirements are typically reflected in procedures and specifications. Legislation relevant to this industry includes:</p> <ul style="list-style-type: none"> • the Food Standards Code, including labelling, weights and measures legislation • legislation covering food safety, environmental management, OHS, anti-discrimination and equal opportunity
Workplace information	<p>Workplace information may include:</p> <ul style="list-style-type: none"> • standard operating procedures (SOPs) • specifications • production schedules and instructions • manufacturers' advice • standard forms and reports
Washing equipment	<p>Washing equipment may include:</p> <ul style="list-style-type: none"> • wash baths • tanks • flumes • pumps • hoses
Operation of equipment and processes	<p>Operation of equipment and processes may require:</p> <ul style="list-style-type: none"> • the use of process control panels and systems
Shutdown procedures	<p>Shutdown procedures may include:</p> <ul style="list-style-type: none"> • cleaning (in some cases cleaning may be carried out by a dedicated cleaning crew)

RANGE STATEMENT	
Services	<p>Services may need to be confirmed. These depend on the nature of the process. Typical examples include:</p> <ul style="list-style-type: none"> • power • water • compressed and instrumentation air

Unit Sector(s)

Unit sector	Fruit and vegetables
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		