



Australian Government

Department of Education, Employment and Workplace Relations

PMAOPS105C Select and prepare materials

Revision Number: 1

PMAOPS105C Select and prepare materials

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This competency covers the selection and preparation of materials for use in production processes. The focus of this unit is finding and delivering the right materials to the process in the right condition. Along the way, some minor preparation may be required.
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Application of the Unit

Application of the unit	<p>A typical application of this competency could be an operator preparing a range of chemicals or other substances for use in a batch process. The operator would visually inspect each item for deterioration or damage, and follow procedures to prepare materials. Once prepared, the operator would then assemble the materials for supply to production areas.</p> <p>This unit only covers those situations where mixing, grinding, testing, etc, are an incidental part of the process of preparing materials for use in production. It does not cover those situations where the primary function is mixing, grinding, testing, etc. Instead see:</p> <ul style="list-style-type: none"> • <i>PMAOPS202A Operate fluid mixing equipment</i> • <i>PMCOPS203A Operate grinding equipment</i> <p>The operator requires a knowledge of classes of compatible and incompatible chemicals, as well as an understanding of HAZCHEM symbols and codes, and hazardous substances regulations. This includes the procedures for safe handling and storage of chemicals and hazardous substances. The operator also needs to be able to follow procedures for disposal of chemicals and other hazardous substances, and for dealing with spills or other containment issues.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		
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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. Identify and locate materials.	1.1. Identify material requirements correctly from documentation 1.2. Identify type, quantity and quality of materials 1.3. Identify material hazards and handling procedures 1.4. Locate and check materials to procedures 1.5. Confirm availability of required quantity of materials 1.6. Record and report material shortages.
2. Contribute to controlling hazards.	2.1. Identify other hazards in work area 2.2. Take action to control material hazards as per documentation 2.3. Take appropriate action to control other hazards in the workplace.
3. Measure quantity of materials	3.1. Identify types of measuring equipment and their purpose, and select according to requirements 3.2. Measure and assemble required quantities 3.3. Check material quantities against documentation 3.4. Document and label materials 3.5. Deliver materials to correct location.
4. Prepare materials as required.	4.1. Check that hoppers, bins and holding tanks are free from contamination 4.2. Identify classes of compatible and incompatible chemicals 4.3. Prepare materials to procedures.
5. Store assembled materials.	5.1. Identify the storage conditions required for the main classes of chemicals 5.2. Identify materials that have special storage requirements 5.3. Store and supply materials.
6. Dispose of waste materials.	6.1. Correctly identify waste materials 6.2. Dispose of materials to procedures and OHS and environmental requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills

- efficient and effective operation of plant/equipment
- hazard analysis
- completing plant records
- communication
- problem solving.

Required knowledge

- classes of compatible and incompatible chemicals
- types of materials in plant and their storage requirements
- other special storage requirements
- basic measurement procedures
- routes of entry of chemicals to the body (basic only)
- procedures for safe handling and storage of chemicals and hazardous substances
- correct selection, use and maintenance of required PPE
- labeling requirements (dangerous goods codes, classification numbers, packaging group numbers)
- HAZCHEM symbols and codes
- hazardous substances regulations
- spill containment and disposal procedures
- workplace Standard Operating Procedures (SOPs) related to this competency
- environmental requirements related to waste disposal
- workplace processes sufficient to recognise non-standard situations
- workplace hazards and methods of controlling hazards according to procedures
- procedures for reporting or dealing with non-standard or hazardous situations
- materials safety data sheets (MSDSs).

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, the Range Statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	<p>Assessment of this unit should include demonstrated competence on actual plant and equipment in a work environment. The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations which could include disruptions to normal, smooth operation.</p>
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Consistent performance should be demonstrated. In particular look to see that:</p> <ul style="list-style-type: none"> • all operations are performed to procedures and OHS and environmental requirements • signs of problems or potential problems with the equipment/processes are recognised • appropriate action is taken in a timely manner • hazards are recognised and appropriate action is taken to control risks arising from such hazards. <p>These aspects may be best assessed using a range of scenarios/case studies/what-ifs as the stimulus, with a walk-through forming part of the response. The assessment activities should include responding to a range of problems.</p>
Context of and specific resources for assessment	<p>Assessment will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations. A bank of scenarios/case studies/what-ifs will be required as will a bank of questions which will be used to probe the reasoning behind the observable actions.</p>
Method of assessment	<p>In all plants it may be appropriate to assess this unit concurrently with relevant teamwork and communication units.</p> <p>It may be appropriate to assess this unit concurrently with HSE units.</p>
Guidance information for	<p>Assessment processes and techniques must be</p>

EVIDENCE GUIDE**assessment**

culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

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. Add any 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.</p>	
Codes of practice/ standards	Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.
Tasks	<p>This competency is typically performed by operators, weighers, mixers or stores personnel, and includes the following tasks (select relevant items):</p> <ul style="list-style-type: none"> • handling raw chemicals • storing raw chemicals • pre-production assembling and labelling of materials • pre-production inspection of materials, usually involving visual inspections only for identification of deterioration or damage • pre-production measuring of materials, by weight, volume or density • disposal of waste materials • identifying and reporting hazards, safety and other issues that could affect the operation of the plant.
Materials preparation	<p>Typical examples of preparation required might include (select relevant items):</p> <ul style="list-style-type: none"> • warming to melt waxy materials • breaking up solid materials into pieces or smaller lumps • passing materials through an in-line delumper • blending a powder or liquid into a solution prior to use in the process • blending powders prior to production • dilution of solutions • preparation of a solution for dosing into a process.
Equipment	<p>Equipment may include:</p> <ul style="list-style-type: none"> • buckets • stirring paddle • propeller or drum mixers • delumpers • hammers or axes • measuring equipment including scales, flow meters and graduated

RANGE STATEMENT	
	vessels <ul style="list-style-type: none"> personal protective equipment
Documentation	Documentation may include: <ul style="list-style-type: none"> materials safety data sheets (MSDSs) enterprise procedures labelling requirements (dangerous goods codes, classification numbers, packaging group numbers) HAZCHEM symbols and codes spill containment and disposal procedures.
Materials	Materials may include: <ul style="list-style-type: none"> raw materials packaging materials consumables.
Problems	<ul style="list-style-type: none"> Typical problems are restricted to responding in a routine, predetermined manner as specified in the procedures. All operations are performed to procedures.
Procedures	Procedures may be written, verbal, computer-based or in some other form. They include: <ul style="list-style-type: none"> all work instructions standard operating procedures formulas/recipes batch sheets temporary instructions any similar instructions provided for the smooth running of the plant. For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Responsible Care) and government regulations.
MSDS	An operator is expected to be aware of an MSDS, its general structure and where to find the methods of use, cautions and actions in an emergency. They are not expected to understand the full text of an MSDS.
Material hazards and handling procedures	Material hazards and handling procedures may be identified from label <ul style="list-style-type: none"> HAZCHEM symbol MSDS other relevant source.

RANGE STATEMENT**Health, safety and environment (HSE)**

All operations to which this unit applies are subject to stringent health, safety and environment requirements, which may be imposed through State or Federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between Performance Criteria and HSE requirements, the HSE requirements take precedence.

Unit Sector(s)

Unit sector	Operational/technical
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		
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