



Australian Government

PMBPREP206 Prepare materials to formulae

Release: 1

PMBPREP206 Prepare materials to formulae

Modification History

Release 1. Supersedes and is equivalent to PMBPREP206C Prepare materials to formulae

Application

This unit of competency covers the skills and knowledge required to prepare materials to formulae for production or product finishing.

This unit of competency applies to production support operators or those in similar roles who are required to plan the work sequence, measure and combine ingredients according to formulae, minimise/eliminate contamination risk, and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Preparation

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Identify requirements to handle materials	1.1	Read and interpret specifications for materials and identify materials
		1.2	Identify units of measurement and matching measuring equipment
		1.3	Know the tolerances of measuring equipment and relate them to the impact of over/under measurement of

- ingredients on production process and quality
- 1.4 Follow procedures to identify and control hazards
 - 1.5 Read workplace procedures and use them to plan work sequence
- 2 **Prepare for assembly of ingredients**
- 2.1 Calibrate or zero equipment for measurement and/or identify appropriate measurement scales
 - 2.2 Set up and fit required personal protective equipment (PPE) and engineering controls
 - 2.3 Assemble equipment for dealing with emergencies
 - 2.4 Check work area for cleanliness
 - 2.5 Identify sources of potential contamination and take steps to minimise/eliminate contamination risk
- 3 **Assemble ingredients**
- 3.1 Collect ingredients
 - 3.2 Weigh/measure ingredients according to procedure
 - 3.3 Follow appropriate workplace approved sequence for combination of materials
 - 3.4 Follow standard operating procedures (SOPs) and observe appropriate safety measures when conducting work
 - 3.5 Check for correctness of colour to standard
 - 3.6 Take action specified in procedures if materials/assembled ingredients do not appear to meet requirements
 - 3.7 Complete workplace records
 - 3.8 Store unused ingredients, and clean and store equipment
- 4 **Respond to routine problems**
- 4.1 Recognise known problems that occur during the operation

- to procedures**
- 4.2 Identify and take action on causes of routine problems
 - 4.3 Log problems as required
 - 4.4 Identify non-routine process and quality problems and take appropriate action

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.
- All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures. Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- SOPs
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment

Tools and equipment include:

- measurement equipment.

Additional tools and equipment will be selected as required from:

- knives and other bag opening equipment
- hoists/lifting equipment not requiring any special permits or licences
- basic hand tools required for opening of material packaging
- relevant PPE.

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- heat, smoke, dust, vapours or other atmospheric hazards
- high temperatures
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- incorrect raw materials being used
- contamination of raw materials
- incorrect formulae being selected
- incorrect mixing techniques and/or order of adding ingredients
- cleanliness of the mixing area and/or utensils
- combining inappropriate materials
- variations in materials
- variations in quality of mixture.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

Assessment Requirements for PMBPREP206 Prepare materials to formulae

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- read and interpret procedures, job specifications, material labels and safety data sheets (SDS)
- select and use materials, tools and equipment to meet job specifications
- weigh/measure, combine and mix ingredients according to procedures
- check the work and identify conformance and/or non-conformance to specifications
- identify hazards and apply relevant hazard controls
- apply safety procedures
- apply housekeeping procedures
- apply waste management procedures
- recognise routine and non-routine problems
- identify when the operator is able to rectify problems, when assistance is required and who is the appropriate source for assistance
- take action to resolve faults or report problems to appropriate personnel
- distinguish between possible causes of routine problems, including:
 - characteristics of materials
 - contamination
 - atmospheric conditions
 - process/procedural problems
 - mechanical abnormalities
- communicate effectively with team/work group and supervisors
- complete workplace records
- use measuring systems, scales and calculating devices
- do basic arithmetical manipulations, including additions, subtractions, divisions, fractions and percentages.

Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job sufficient to operate under routine only supervision and to solve routine problems, including knowledge of:

- types, applications and compositions of materials commonly used in formulae

- tolerances of measuring equipment and the impact of over/under measurement of ingredients on production process and quality
- sources of contamination that may affect formulae and how to eliminate them
- routine and non-routine problems that may arise, the range of possible causes and appropriate actions
- impact of incorrect or faulty materials on formulae
- organisation procedures relevant to the work environment/job role
- hierarchy of control
- hazards that may arise in the job/work environment and:
 - their possible causes
 - potential consequences
 - appropriate risk controls.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- In all plants it may be appropriate to assess this unit concurrently with units such as:
 - teamwork
 - communication.
- The collection of performance evidence:
 - should occur over a range of situations which include typical disruptions to normal, smooth operations and provide for demonstration of responding to problems
 - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
 - must include the use of industry appropriate materials, tools, equipment, data and documentation
 - may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from demonstration of skills and one or more of:
 - walk-throughs
 - pilot plant operation
 - industry-based case studies/scenarios
 - ‘what ifs’.

- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
 - relevant VET or other qualification/Statement of Attainment
 - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
 - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
 - being currently employed undertaking the type of work being assessed
 - being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation's policies and procedures
 - having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
 - conducting on the job training/assessments of the type of work being assessed
 - being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

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