

Modification history

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 5.0

FBPOPR2028X	Operate a mixing or blending process
Application	<p>This unit of competency describes the skills and knowledge required to combine ingredients and additives in the correct quantities and sequence, and to operate and shut down mixing and blending equipment to achieve the required mix characteristics.</p> <p>This unit applies to individuals who work under general supervision and in the food processing industry. Mixes may include concentrated pre-mixes or bulk blends. The output of this process may be a product requiring further processing or for external use.</p> <p>All work must be carried out to comply with workplace procedures, in accordance with State/Territory food safety, and work health and safety, regulations and legislation that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Operational (OPR)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work in processing area	1.1 Confirm materials are available to meet production requirements 1.2 Wear appropriate personal protective clothing and ensure correct fit according to health, safety and food safety requirements 1.3 Prepare pre-mixes according to food safety and job requirements 1.4 Identify and confirm equipment is clean and not locked out
2. Prepare the mixing or blending equipment and process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing or operating parameters to meet production requirements 2.3 Perform pre-start checks according to operator instructions
3. Operate and monitor equipment	3.1 Deliver ingredients and additives to the mixer in the required quantities and sequence to meet recipe specifications 3.2 Start, operate and monitor the process to ensure optimal operations 3.3 Monitor the mixing process to confirm that product meets specifications 3.4 Identify, adjust and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Transfer mix to required production or storage location according to food safety and workplace procedures 3.6 Apply workplace cleaning procedures and environmental requirements
4. Shut down the mixing or blending process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process safely according to operating procedures 4.3 Identify and report maintenance requirements according safe work procedures 4.4 Maintain workplace records in required format

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Interpret workplace and standard operating procedures relevant to work task Interpret production requirements
Writing	<ul style="list-style-type: none"> Record processing data using electronic, digital and/or paper-based formats Accurately labelling mixes
Numeracy	<ul style="list-style-type: none"> Weigh (mg, g, kg) and measure (ml, L) ingredients Monitor and interpret production and process control indicators and data Monitor supply and flow of materials to and from the process

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2028X Operate a mixing or blending process	FBPOPR2028 Operate a mixing or blending process	Minor changes to Performance Criteria to clarify task Foundation skills refined Performance Evidence clarified Minor changes to Knowledge Evidence to clarify requirements and Assessment Conditions	Equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4
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TITLE	Assessment requirements for FBPOPR2028 Operate a mixing or blending process
Performance Evidence	
<p>An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.</p> <p>There must be evidence that the individual has operated a mixing or blending process to produce at least one blended product to meet specifications, including:</p> <ul style="list-style-type: none"> • conducting pre-start checks, including: <ul style="list-style-type: none"> • inspecting equipment condition to identify any signs of wear • selecting appropriate settings and/or related parameters • cancelling isolation or lock-outs as required • confirming that equipment is clean and correctly configured for processing requirements • positioning sensors and controls correctly • ensuring any scheduled maintenance has been carried out • confirming that all safety guards are in place and operational • adding/loading materials in correct quantities and sequence, including monitoring automatic ingredient addition and/or manual addition • applying food safety practices • following safe work procedures • addressing routine processing issues. 	
Knowledge Evidence	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> • purpose and basic principles of preparing mixes and blends, including the characteristics and basic function of ingredients and additives used, method and sequence of ingredient addition required to achieve required blend characteristics and, where relevant, the purpose of conditioning, maturation or holding stages required prior to further processing of the mix • specific gravity and bulk density as appropriate for ingredients used • basic operating principles of mixing/blending equipment, including: <ul style="list-style-type: none"> • main equipment components • status and purpose of guards • equipment operating capacities and applications • the purpose and location of sensors and related feedback instrumentation • awareness of calibration schedules for scales and related weighing/measuring equipment • services required and action to take if services are not available • the flow of the mixing process and the effect of mix preparation on downstream processes • procedures for requisitioning, receiving and returning ingredients from stores • ingredient-handling requirements and shelf-life or coding • quality characteristics required of ingredients and additives and their effect on mixing process performance, including methods used to condition or prepare ingredients prior to addition • methods used to monitor the blending or mixing process, including inspecting, measuring and testing, by the process • inspection or test points (control points) in the process and the related procedures and recording requirements, including: <ul style="list-style-type: none"> • flow rates • ingredient/additive addition sequence • times/temperatures and agitator speeds • required characteristics of blend, including viscosity, appearance and temperature • required attributes of the mixed or blended output, including chemical, texture and flavour profiles as required • the effect of the mixing or blending parameters, including temperature and length of mix time on mixing outcome 	

Knowledge Evidence
<ul style="list-style-type: none"> • contamination/cross contamination and food safety risks associated with the process and related control measures, including product compatibility and cross-contamination risks and associated cleaning requirements, as well as common allergens used in mixes prepared • operating requirements and parameters, and corrective action required when 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 • common causes of variation and corrective action required • health and safety hazards and controls relevant to the mixing and blending process • requirements of different shutdowns as appropriate to the blending or mixing 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 relevant to the mixing and blending process • procedures and responsibility for reporting production and performance information • environmental issues and controls relevant to the mixing or blending process, including waste or 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 • characteristics of solutions, suspensions and emulsions for the mixing and blending process • product labelling and storage requirements for the mixing and blending process • cleaning and sanitation procedures for mixing or blending equipment • recording procedures to ensure traceability of product.

Assessment Conditions
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • a workplace or an environment that accurately represents workplace conditions • resources, equipment and materials: <ul style="list-style-type: none"> • mixing/blending process equipment and related services • personal protective clothing and equipment • ingredients and additives required for the mixing/blending process • cleaning materials and equipment • specifications: <ul style="list-style-type: none"> • work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, batch/recipe instructions • information on equipment capacity and operating parameters • production schedule/batch/recipe specifications, control points and processing parameters. <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>

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