Modification history

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| Release | Comments |
| Release 1 | This version released with FBP Food, Beverage and Pharmaceuticals Training Package Version 2.0 and meets the Standards for Training Packages 2012. |

| FDFPH3MXXX | Operate a concentration process |
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| Application | This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a concentration process.  The unit applies to individuals who work in the pharmaceutical sector and apply basic operating principles to the operation and monitoring of a concentration process.  No occupational licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Pharmaceutical (PHM) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare the concentration equipment and process for operation | 1.1 Confirm materials and services meet production requirements  1.2 Identify and follow workplace documentation relevant to work area activities  1.3 Ensure availability of required facilities, storage, equipment and personnel  1.4 Use appropriate personal protective clothing and equipment  1.5 Carry out line clearance procedures  1.6 Follow procedures to eliminate or control the risk of cross-contamination  1.7 Set up and start up concentration process according to workplace procedures |
| 2. Operate and monitor the concentration process | 2.1 Monitor concentration process to confirm that specifications are within required limits  2.2 Identify, rectify or report out-of-specification products or processes to maintain process within specifications  2.3 Maintain work area according to workplace housekeeping standards  2.4 Conduct work according to environmental standards  2.5 Maintain workplace documentation |
| 3. Shut down the concentration process | 3.1 Shut down process according to workplace procedures and practices  3.2 Identify and report maintenance requirements |

| Foundation Skills  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. | |
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| Skill | Description |
| Reading | * Read and interpret standard operating procedures for the concentration process |
| Writing | * Complete records according to workplace procedures using paper based and/or electronic media |
| Numeracy | * Confirm process remains within specifications for product and machine temperature |
| Navigate the world of work | * Apply workplace procedures to own role and responsibilities * Understand main tasks, responsibilities and boundaries of own role, including use of personal protective clothing and equipment, housekeeping standards and environmental care requirements * Maintain a clean and hazard free work area |
| Interact with others | * Report operational and safety information to relevant personnel using required communication method |
| Get the work done | * Solve routine problems according to workplace procedures and using experience of past solutions |

| Range Of Conditions  This section specifies 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. | |
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| Personal protective clothing and equipment must include: | * protective gown or scrubs * surgical masks * surgical gloves * disposable overshoes * hair net. |
| Start up concentration process must include: | * inspecting equipment condition to identify signs of wear * confirming that equipment is clean and correctly configured for processing requirements * positioning sensors and controls correctly * ensuring scheduled maintenance has been carried out * turning on oil pumps to the evaporator * pre-running equipment in line with operating temperature requirements where required. |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FDFPHM3XXX Operate a concentration process | FDFPH2002A Operate a concentration process | Updated to meet Standards for Training Packages. Code changed to reflect AQF alignment. | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4> |

| TITLE | Assessment requirements for FDFPHM3XXX |
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| Performance Evidence | |
| An individual demonstrating competency in this unit must satisfy all the elements and performance criteria of this unit.  There must be evidence that, on at least one occasion, the individual has operated a concentration process, including:   * selected, fitted and used personal protective clothing and equipment * conducted pre-start checks required for safe operation of the concentration process * started, operated, monitored and adjusted a process to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including: * product and machine temperature * vacuum * distillate colour * viscosity of concentrate * taken corrective action in response to out-of-specification results * responded to and reported equipment failure according to workplace procedures * cleaned and sanitised equipment as required * sorted, collected, treated, recycled or disposed of waste * completed workplace records in required format * maintained work area to meet housekeeping standards * followed work health and safety procedures. | |

| Knowledge Evidence |
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| 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:   * the purpose and principles of each stage of the concentration process, including the effect of heat and vacuum on distillate volume * basic operating principles of the equipment, including main equipment components and equipment operating capacities and applications * services required and actions to take if services are unavailable * quality requirements of materials and the effect of variations on the concentration process * process specifications, procedures and operating parameters for different products and materials * operating requirements and parameters and corrective actions 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 concentration process, including inspecting, measuring and testing, and the ability to calculate yields and determine the number of passes required to ensure concentration is within specification * contamination or food safety risks associated with the concentration process * common causes of variation and corrective actions required * work health and safety hazards and controls, including the risks involved with using solvents and the limitations of protective clothing and equipment * concentration process shutdown procedures and responsibilities * line clearance procedures, including procedures for cleaning feed lines * environmental issues and controls relevant to the concentration process, including waste collection and handling procedures * cleaning and sanitation procedures * workplace documentation and authorisation procedures. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * a workplace setting or an environment that accurately represents workplace conditions * resources, equipment and materials: * personal protective clothing and equipment * liquid extracts to be concentrated * concentration equipment and services * cleaning materials and equipment associated with a concentration process * specifications: * specifications, control points and processing parameters * recording requirements and procedures * cleaning procedures associated with a concentration process * relationships: * interactions with team members and supervisors or realistic scenarios or roleplays.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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