Modification history

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| Release | Comments |
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package version 2.0. |

| FBPTEC4005 | Apply an understanding of food additives to products |
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| Application | This unit of competency describes the skills and knowledge required to recognise the characteristics and functions of food additives, preservatives, colours and flavours used in food products.  The unit applies to individuals who work with food additives in a food production environment. It is designed to provide an overview of food additives. It is not designed to meet the competency requirements of the person who specifies additives, preservatives, colours or flavours to be used in food. Analysis of the properties of food additives may also be done by a specialist.  No occupational licensing or certification requirements apply to this unit at the time of publication. However, legislative and regulatory requirements for food processing exist so local requirements must be checked. All work must comply with Australian food safety standards and relevant codes of practice.  NOTE: The terms 'occupational health and safety' (OHS) and 'work health and safety' (WHS) generally have the same meaning in the workplace. In jurisdictions where the national model WHS legislation has not been implemented, RTOs must contextualise the unit of competency by referring to current OHS legislative requirements. |
| Prerequisite Unit | Nil |
| Unit Sector | Technical (TEC) |

| 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. Investigate the use of additives in food | 1.1 Identify types and groupings of food additives used in food products  1.2 Explain functions of food additives  1.3 Research legal requirements relating to use of food additives  1.4 Explain legal and quality consequences of incorrect additive addition |
| 2. Manage use of additives in a production process | 2.1 Identify additives types and groupings used in workplace product range  2.2 Determine and apply suitable methods of application of food additives to meet production requirements  2.3 Establish or review procedures for safe handling and application of food additives  2.4 Conduct handling, use and disposal of additives in accordance with safety and environmental standards |

| 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 | * Critically analyses documentation regarding food additive and legal implications from a variety of sources * Reads, reviews and evaluates policies and procedures relating to food additives |
| Writing | * Records outcomes of research work and reviews and modifies documentation using industry relevant terminology |
| Numeracy | * Performs mathematical calculations for analysing food additive application rates |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FBPTEC4005 Apply an understanding of food additives to products | FDFTEC4005A Apply an understanding of food additives | Updated to meet Standards for Training Packages  Updated title  Minor changes to Element and Performance Criteria for clarity | 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 FBPTEC4005 Apply an understanding of food additives to products |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that the individual has applied an understanding of food additives on at least one occasion, including:   * researched food additives and their legal and quality implications * identified main additives and their groupings used in the workplace product range * used suitable methods to apply food additives and record their usage in workplace product range * developed procedures for safely storing, handling and applying additives to products to ensure product safety and quality standards are achieved. | |

| 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:   * how common food additives are grouped according to their function * range of additives under each grouping including: * texture modifying agents * organoleptic and nutritional modifying agents * shelf-life enhancing agents * technological aid * range of additives used in workplace products * coding system(s) for describing additives * legal requirements relating to additives as established by relevant food safety legislation * typical quantities of additives used and related units of measurement * preparation requirements, including forming and breaking emulsions and preparation of solutions * systems and equipment for applying additives * work health and safety (WHS) issues related to handling of additives * consequences of incorrect additive addition, including quality and food safety hazards related to incorrect addition * handling and processing conditions that affect the characteristics of products * requirements for recording use of additives |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * workplace or an environment that accurately represents workplace conditions * resources, equipment and materials: * product range related to production process * additives used in the workplace product range, including preservatives, colours and/or flavours * specifications: * relevant food safety legislation * information about current workplace requirements and procedures for additive use.   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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