

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR FOOD PROCESSING

What are Occupational Standards(OS)?

OS describe what individuals need to do, know and understand in order to carry out a particular job role or function

OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding



Contents

| L. | Introduction and ContactsPage 1 |
|----|---------------------------------|
| 2. | Qualifications PackPage 2 |
| 3. | Glossary of Key TermsPage 3 |
| ŀ. | OS unitsPage 5 |
| 5. | Assessment CriteriaPage 35 |
| | |

Introduction

Qualifications Pack – Pickle Making Technician

SECTOR: FOOD PROCESSING SUB-SECTOR: FRUITS AND VEGETABLES

OCCUPATION: PROCESSING

REFERENCE ID: FIC/Q0102

ALIGNED TO: NCO-2004/7414.54

Brief Job Description: A Pickle Making Technician is responsible for preparation of all types of pickles from various fruits and vegetables through the process of washing, peeling, cutting/slicing, curing/brining, blending, filling, oil topping, packaging and storage.

Personal Attributes: A Pickle Making Technician must have the ability to plan, organize, prioritize, calculate and handle pressure. The individual must possess reading, writing and communication skills. In addition, the individual must have stamina and professional hygiene.

Qualifications Pack For Pickle MakingTechnician



| Qualifications Pack Code | FIC/Q0102 | | |
|--------------------------|-----------------------|-----------------------|----------|
| Job Role | Pick | kle Making Technician | |
| Credits (NSQF) | TBD | Version number | 1.0 |
| Sector | Food Processing | Drafted on | 23/08/15 |
| Sub-sector | Fruits and Vegetables | Last reviewed on | 04/09/18 |
| Occupation | Processing | Next review date | 30/06/19 |

| Job Role | Pickle Making Technician |
|---|---|
| Role Description NSQF level Minimum Educational Qualifications | A Pickle Making Technician is responsible for preparing different types of pickles from various fruits and vegetables. This role is similar for processing all types of pickles in manual and machine operated units. Level 4 Preferably Class 8 |
| Maximum Educational Qualifications Training (Suggested but not mandatory) | Not applicable Food standards for pickle Method of food preservation Food handling, packaging and storage techniques Quality assessment of raw material, packaging materials and finished products Waste management Operation and maintenance of pickle processing machineries and equipments GMP HACCP QMS Computer basics and ERP system followed by the organization Training in Food Safety Standards and Regulations (as per FSSAI) (Mandatory) |
| Minimum Job Entry Age | 18 years |
| Experience | 2-3 years in a pickle making unit |
| Applicable National Occupational Standards (NOS) | Compulsory:1. FIC/N0105 Prepare and maintain work area and process machineries for pickle making2. FIC/N0106 Prepare for pickle making3. FIC/N0107 Pickle making4. FIC/N0108 Complete documentation and record keeping related to pickle making |

Qualifications Pack For Pickle MakingTechnician



Job Details

| | <u>5. FIC/N9001 Food safety, hygiene and sanitation for</u> processing food products |
|----------------------|---|
| Performance Criteria | As described in the relevant OS units |



Definitions

| Keywords /Terms | Description |
|----------------------------------|---|
| Sector | Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests. |
| Sub-sector | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components. |
| Occupation | Occupation is a set of job roles, which perform similar/related set of functions in an industry. |
| Function | Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through analysis and form the basis of OS. |
| Job Role | Job role defines a unique set of functions that together form a unique employment opportunity in an organization. |
| OS | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts. |
| Performance Criteria | Performance Criteria are statements that together specify the standard of performance required when carrying out a task. |
| NOS | NOS are Occupational Standards which apply uniquely in the Indian context. |
| Qualifications Pack Code | Qualifications Pack Code is a unique reference code that identifies a qualifications pack. |
| Qualifications Pack | Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code. |
| Unit Code | Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N' |
| Unit Title | Unit Title gives a clear overall statement about what the incumbent should be able to do. |
| Description | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for. |
| Knowledge and Understanding | Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard. |
| Organizational Context | Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility. |
| Technical Knowledge | Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities. |
| Core Skills or Generic Skills | Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles. |



Acronyms

| Keywords /Terms | Description |
|-----------------|---|
| CIP | Clean In Place |
| СОР | Clean Out Of Place |
| ERP | Enterprise Resource Planning |
| FIFO | First In First Out |
| FEFO | First Expiry First Out |
| FSSAI | Food Safety and Standards Authority of India |
| GMP | Good Manufacturing Practice |
| GHP | Good Hygiene Practices |
| НАССР | Hazard Analysis and Critical Control Point |
| NOS | National Occupational Standard |
| NSQF | National Skill Qualification Framework |
| NVEQF | National Vocational Educational Qualification Framework |
| NVQF | National Vocational Qualification Framework |
| OS | Occupational Standard |
| PC | Performance Criteria |
| QP | Qualification Pack |
| SSC | Sector Skill Council |
| SOP | Standard Operating Procedure |
| QMS | Quality Management System |

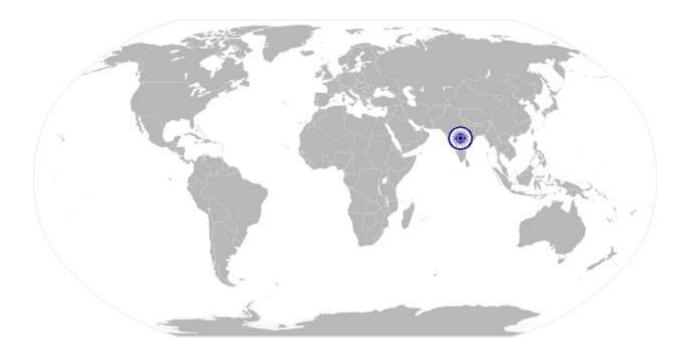




FIC/N0105

5 Prepare and maintain work area and process machineries for pickle making

National Occupational Standard



Overview

This OS unit is about preparing work area for hygiene and safety, and ensuring performance, efficiency and maintenance of process machineries and tools for pickle making, as per the specifications and standards of the organization.





FIC/N0105 Prepare and maintain work area and process machineries for pickle

| 1 | ma | ki | ng |
|---|----|----|----|
| | | | |

| Unit Code | FIC/N0105 | | |
|--|--|--|--|
| Unit Title (Task) | Prepare and maintain work area and process machineries for pickle making | | |
| Description | This unit is about preparing and maintaining work area and process machineries for the pickle making process. | | |
| Scope | This unit/task covers the following: Prepare and maintain work area (for pickle making) Prepare and maintain process machineries and tools (for pickle making) | | |
| Performance Criteria(P | C) w.r.t. the Scope | | |
| Element | Performance Criteria | | |
| Prepare and maintain work area (for pickle making) | PC1. clean and maintain the cleanliness of the work area using approved sanitizers and keep it free from dust, waste, flies and pests PC2. ensure that the work area is safe and hygienic for food processing PC3. dispose waste materials as per defined SOPs and industry requirements | | |
| Prepare and maintain process machineries and tools (for pickle making) | PC4. check the working and performance of all machineries and tools used for the pickle making process such as washer, peeler, vegetable cutter/slicer, blender, packaging machines, etc. PC5. clean the machineries and tools used with approved sanitizers following SOP PC6. place the necessary tools required for process PC7. attend to the minor repairs/ faults of all machines, if required | | |
| Knowledge and Unders | tanding (K) | | |
| A. Organizational Context (Knowledge of the company / organization and its processes) | The user/individual on the job needs to know and understand: KA1. organization standards, process standards and procedures followed in the organisation KA2. types of products produced by the organisation KA3. code of business conduct KA4. dress code to be followed KA5. job responsibilities/duties and standard operating procedures KA6. internal processes like procurement, store management, inventory management, quality management and key contact points for query resolution KA7. provision of wages, working hours and accident compensation as per organisation policy KA8. food safety and hygiene standards followed | | |





| FIC/N0105 Prepa | re and maintain work area and process machineries for pickle |
|------------------------|--|
| | making |
| B. Technical | The user/individual on the job needs to know and understand: |
| Knowledge | KB1. types of chemicals, materials and equipment required for the cleaning and |
| | maintenance |
| | KB2. cleaning process to disinfect equipment/ tools |
| | KB3. supplier/manufacturers instructions related to cleaning and maintenance |
| | KB4. knowledge of Food Safety Standards and Regulations (as per FSSAI) |
| | KB5. knowledge on legal regulations pertaining to work place like health and safety, |
| | recommended dosage for use of sanitizers, control of substances hazardous to |
| | health, handling/storage/ disposal/ cautions of use of sanitizers and |
| | disinfectants, fire precautions, occurrences, hygiene practice, disposal of |
| Skills (S) [Optional] | waste, environmental protection, etc. |
| | Writing Skills |
| A. Core Skills/ | Writing Skills |
| Generic Skills | The user/ individual on the job needs to know and understand how to: |
| | SA1. note the information communicated by the supervisor |
| | SA2. note the raw materials used for production and the finished products |
| | produced |
| | SA3. note the readings of the process parameters and provide necessary |
| | information to fill the process chart |
| | SA4. note down observations (if any) related to the process |
| | SA5. write information documents to internal departments/ internal teams |
| | SA6. note down the data for online ERP or as per applicability in the organization Reading Skills |
| | |
| | The user/individual on the job needs to know and understand how to: |
| | SA7. read and interpret the process required for producing various types of |
| | products |
| | SA8. read and interpret and process flowchart for all products produced |
| | SA9. read equipment manuals and process documents to understand the |
| | equipments operation and process requirement |
| | SA10. read internal information documents sent by internal teams |
| | Oral Communication (Listening and Speaking skills) |
| | The user/individual on the job needs to know and understand how to: |
| | SA11. discuss task lists, schedules and activities with the supervisor |
| | SA12. effectively communicate with the team members |
| | SA13. question the supervisor in order to understand the nature of the problem and |
| | to clarify queries |
| | SA14. attentively listen and comprehend the information given by the speaker |
| | SA15. communicate clearly with the supervisor and cross department teams on the |
| D. Drofossional Skills | issues faced during process |
| B. Professional Skills | Decision Making The user/individual on the job needs to know and understand how to: |
| | SB1. analyse critical points in day to day tasks through experience and observation |
| | and identify control measures to solve the issue |
| | SB2. handle issues in case the supervisor is not available (as per the authority |
| | matrix defined by the organization) |
| | |





FIC/N0105 Prepare and maintain work area and process machineries for pickle

making

| такта |
|--|
| Plan and Organize |
| The user/individual on the job needs to know and understand how to: |
| SB3. plan and organize the work order and jobs received from the supervisor |
| SB4. organize raw materials and packaging materials required for all products |
| following the instruction provided by the supervisor |
| SB5. plan and prioritize the work based on the instructions received from the supervisor |
| SB6. plan to utilise time and equipment's effectively |
| SB7. organize all process/ equipment manuals so as to access information easily |
| SB8. support the supervisor in scheduling tasks for helper(s) |
| Customer Centricity |
| The user/individual on the job needs to know and understand how to: |
| SB9. understand customer requirements and their priority and respond as per thei |
| needs |
| Problem Solving |
| SB10. support supervisor in solving problems by detailing out problems |
| SB11. discuss the possible solutions with the supervisor for problem solving |
| Analytical Thinking |
| The user/individual on the job needs to know and understand how to: |
| SB12. apply domain information about maintenance processes and technical |
| knowledge about tools and equipment |
| Critical Thinking |
| The user/individual on the job needs to know and understand how to: |
| SB13. use common sense and make judgments on day to day basis |
| SB14. use reasoning skills to identify and resolve basic problems |
| SB15. use intuition to detect any potential problems which could arise during operations |
| SB16. use acquired knowledge of the process for identifying and handling issues |



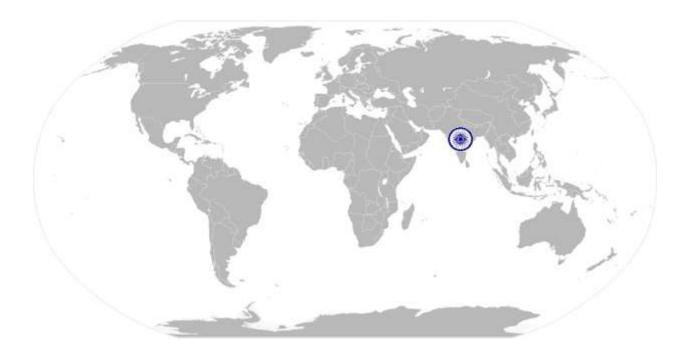


FIC/N0105 Prepare and maintain work area and process machineries for pickle making

NOS Version Control

| NOS Code | FIC/N0105 | | |
|---------------------|-----------------------|------------------|------------|
| Credits (NSQF) | TBD | Version number | 1.0 |
| Industry | Food Processing | Drafted on | 23/08/15 |
| Industry Sub-sector | Fruits and Vegetables | Last reviewed on | 04/09/2018 |
| Occupation | Processing | Next review date | 30/06/2019 |

Back to Top



FIC/N0106





National Occupational Standard



Overview

This OS unit is on preparation for production of various types of pickles through planning production and machinery utilization, organizing raw materials, packaging materials and machineries for production.

Prepare for pickle making



FIC/N0106

National Occupational Standard

| / | Unit Code | FIC/N0106 |
|---|---|--|
| | Unit Title (Task) | Prepare for pickle making |
| | Description | This unit is about preparing for the production of various types of pickles through planning production and machinery utilization, organizing raw materials, packaging materials and machineries for production. |
| | Scope | This unit/task covers the following: Provide support in production planning (for pickle making) Plan equipment utilization (for pickle making) Organize and check equipments and raw material (for pickle making) |
| | Performance Criteria(P | C) w.r.t. the Scope |
| | Element | Performance Criteria |
| | Provide support in production planning (for pickle making) | PC1. read and understand the production order from the supervisor PC2. check the availability of raw materials, packaging materials, equipment availability and manpower |
| | | PC3. support in planning production sequence by grouping products from same variety of raw material grouping products that require same process selecting raw materials that do not impact the quality of the other avoiding CIP after each product using the same equipment and machinery for various products planning maximum capacity utilization of machineries considering the process time for each product planning efficient utilization of resources/manpower prioritizing urgent orders PC4. calculate the batch size based on the production order and machine capacity PC5. calculate the raw material requirement (considering the process loss) to produce the required quantity of finished product(s) PC6. calculate the raw materials, packaging materials and manpower requirement for completing the order |
| | Plan equipment utilization (for pickle making) | PC7. ensure the working and performance of each equipment required for the process PC8. calculate the process time for effective utilization of machineries PC9. plan batch size considering full capacity utilization of machineries PC10. plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and save energy PC11. allot responsibilities/ work to the assistants and helpers |
| | Organize and check equipments and raw material (for pickle making) | PC12. refer to the process chart/ product flow chart/formulation chart for product(s) produced PC13. weigh the raw materials required for the batch PC14. sharpen and change blades of cutting/slicing machine as required for the product produced |



FIC/N0106

Prepare for pickle making

| | PC15. check the conformance of raw material quality to organisation standards, | | |
|-----------------------|---|--|--|
| | through physical analysis and by referring the quality analysis report from the | | |
| | supplier/ internal lab analysis report | | |
| | PC16. ensure working and performance of required machineries and tools | | |
| | PC17. keep the tools accessible to attend repairs/faults in case of breakdown | | |
| | | | |
| Knowledge and Unders | standing (K) | | |
| A. Organizational | The user/individual on the job needs to know and understand: | | |
| Context | KA1. organization standards, process standards and procedures followed in the | | |
| (Knowledge of the | organisation | | |
| company / | KA2. types of products produced by the organisation | | |
| | KA3. code of business conduct | | |
| organization and | KA4. dress code to be followed | | |
| its processes) | KA5. job responsibilities/duties and standard operating procedures | | |
| | KA6. internal processes such as procurement, store management, inventory | | |
| | management, quality management and key contact points for query | | |
| | resolution | | |
| | KA7. provision of wages, working hours as per organisation policy | | |
| | KA8. food safety and hygiene standards followed | | |
| B. Technical | The user/individual on the job needs to know and understand: | | |
| Knowledge | KB1. types of raw materials (varieties of vegetables) and method of processing | | |
| | each raw material to obtain various types of products | | |
| | KB2. types of machineries used in processing and machineries used in the | | |
| | organisation | | |
| | KB3. maintenance of process equipments KB4. supplier/manufacturers instructions related to machineries | | |
| | KB5. process for producing each product | | |
| | KBS. process for producing each product | | |
| | KB7. calculation of raw material for required quantity of finished product | | |
| | KB8. quality parameters, basic food microbiology and quality assessment based on | | |
| | physical parameters | | |
| | KB9. food safety and hygiene | | |
| KB10. GMP | | | |
| | КВ11. НАССР | | |
| Skills (S) [Optional] | | | |
| A. Core Skills/ | Writing Skills | | |
| Generic Skills | | | |
| | The user/ individual on the job needs to know and understand how to: | | |
| | SA1. note the information communicated by the supervisor | | |
| | SA2. note the raw materials used for production and the finished products | | |
| | SA3. note the readings of the process parameters and provide necessary | | |
| | information to fill the process chart | | |
| | SA4. note down observations (if any) related to the process | | |
| | SA5. write information documents to internal departments/ internal teams | | |
| | SA6. note down the data for online ERP or as per applicability in the organization | | |
| | 5. Hote down the data for online LKr of as per applicability in the organization | | |



FIC/N0106



Prepare for pickle making

| | Reading Skills |
|---|---|
| | The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement SA10. read internal information documents sent by internal teams Oral Communication (Listening and Speaking skills) The user/individual on the job needs to know and understand how to: |
| | SA11. discuss task lists, schedules and activities with the supervisor SA12. effectively communicate with the team members SA13. question the supervisor in order to understand the nature of the problem and to clarify queries SA14. attentively listen and comprehend the information given by the speaker SA15. communicate clearly with the supervisor and cross department teams on the issues faced during process |
| | Decision Making The user/individual on the job needs to know and understand how to: |
| | SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization) Plan and Organize |
| | The user/individual on the job needs to know and understand how to: |
| | SB3. plan and organize the work order and jobs received from the supervisor SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor SB5. plan and prioritize the work based on the instructions received from the supervisor SB6. plan to utilise time and equipment's effectively SB7. organize all process/ equipment manuals so as to access information easily SB8. support the supervisor in scheduling tasks for helper(s) |
| (| Customer Centricity |
| | The user/individual on the job needs to know and understand how to: SB9. understand customer requirements and their priority and respond as per their needs |
| | Problem Solving |
| The user/individual on the job needs to know and understand how to: SB10. support supervisor in solving problems by detailing out problems SB11. discuss the possible solutions with the supervisor for problem solving | |
| | Analytical Thinking |
| | The user/individual on the job needs to know and understand how to: SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment |





N · S · D · C National Skill Development Corporation

FIC/N0106

| Critical Thinking |
|---|
| The user/individual on the job needs to know and understand how to: |
| SB13. use common sense and make judgments on day to day basis |
| SB14. use reasoning skills to identify and resolve basic problems |
| SB15. use intuition to detect any potential problems which could arise during |
| operations |
| SB16. use acquired knowledge of the process for identifying and handling issues |





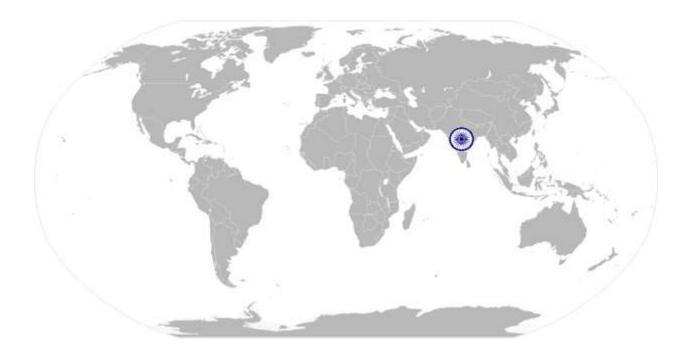


FIC/N0106

NOS Version Control

| NOS Code | FIC/N0106 | | |
|---------------------|-----------------------|------------------|------------|
| Credits (NSQF) | TBD | Version number | 1.0 |
| Industry | Food Processing | Drafted on | 23/08/15 |
| Industry Sub-sector | Fruits and Vegetables | Last reviewed on | 04/09/2018 |
| Occupation | Processing | Next review date | 30/06/2019 |

Back to Top

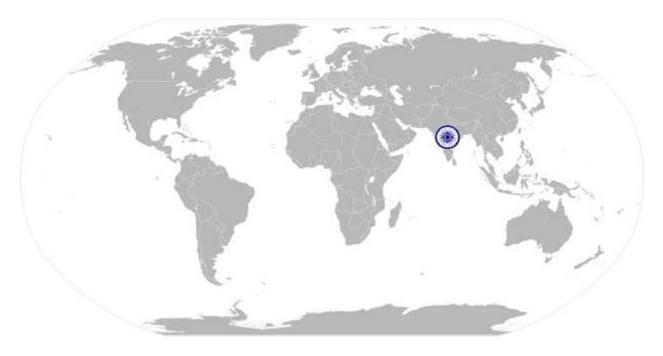


FIC/N0107





National Occupational Standard



Overview

This OS unit is about preparing different types of pickles from fruits and vegetables using various machineries as per the specifications and standards of the organization.

Pickle making



National Occupational Standard

FIC/N0107

| Unit Code | FIC/N0107 | | |
|--------------------------------------|---|--|--|
| Unit Title (Task) | Pickle Making | | |
| Description | This unit is about preparing different types of pickles from fruits and vegetables using various machineries as per the specifications and standards of the organization. | | |
| Scope | This unit/task covers the following: Receive, wash and sort vegetables Peel and slice vegetables Prepare brine solution and cure vegetables Prepare and pack pickle Carry out post production cleaning and regular maintenance of equipments | | |
| Performance Criteria(P | C) w.r.t. the Scope | | |
| Element | Performance Criteria | | |
| Receive, wash and sort vegetables | PC1. receive vegetables from the supplier/vendor, check weight and check quality through physical parameters such as appearance, colour, texture, maturity, etc. PC2. pump water into the washing tank and control water level, dump vegetables into the washing tank for washing or wash and rinse the vegetables manually PC3. start the ladder conveyor to lift the vegetables from the washing tank and to transfer to the conveyor PC4. open valves of the high pressure spraying system for fresh water and adjust pressure to spray water on vegetables for rinsing PC5. control speed of drying line conveyor, control air temperature and fan speed/air flow and start conveyor to dry vegetables or start roller conveyor with rolling brushes for wiping and transfer vegetables to sorting line PC6. start and adjust speed of sorting/inspecting line conveyor to remove damaged, blemished and rotten vegetables | | |
| Peel and slice vegetables | PC7. dump the sorted vegetables in the peeling machine (depending on the type of vegetable), start the peeler machine and adjust the speed to remove the peel, pump water or open valve/spraying system to wash the peeled vegetables (or) PC8. prepare lye solution by adding measured quantity of lye chemical and water into lye tank, turn valves to admit steam to heat lye solution, start conveyor and adjust speed to carry manually/mechanically into the lye tank, and pull out the basket after specified time following SOP (lye peeling) PC9. observe vegetable emerging from lye peeling machine /lye tank to ensure removal of peel andopen valves to drain the excess lye solution | | |





FIC/N0107

Pickle making

| | PC10. load the vegetables in the cutter/slicer machine, adjust controls to cut vegetables to required size, start machine, collect sliced vegetables from the discharge chute PC11. start inspection line conveyor and control speed, transfer cut/sliced vegetable on the conveyor belt, visually inspect sliced vegetables for conformance to organisation standards and remove non-conforming materials from the line |
|--|--|
| Prepare brine solution and cure vegetables | PC12. open valve to admit measured quantity of water into steam jacketed kettle/tank, observe water gauge or designated mark for filled quantity, weigh required quantity of salt as per formulation and add into tank to prepare brine solution PC13. start and control speed of the agitator of the steam jacketed kettle/tank, turn valves to set required pressure and open valve to admit steam to heat the solution following sop PC14. observe pressure and temperature gauge, and regulate steam to maintain temperature, check brine solution using salinometer equipment to ensure conformance of its specifications to standards PC15. open valve or start pump to transfer brine solution from mixing tank to storage or holding tanks for later use PC16. start pump to transfer measured quantity of brine solution from storage tank/kettle to the curing drums/barrels, add measured quantity of cut/whole vegetables, close with lid and allow to stand for specified time (few weeks) for curing/natural fermentation following SOP PC17. mix the vegetables periodically either mechanically/manually for salt equilibrium, sample and check for acidity to ensure completion of fermentation PC18. store cured vegetable following SOP until further process |
| Prepare and pack pickle | PC19. refer to the work order and formulation for the product/batch PC20. organize required raw material (cured vegetable), ingredients, spices, packaging material, etc. from store and check its conformance to standards, through physical parameters PC21. remove cured vegetables from drums/barrels/tank and transfer into the washing tank, pump water into tank to wash vegetables to remove excess salt, open valve to drain water or dump on the washing line and start the conveyor, open valves of the high pressure spraying system for fresh water and adjust pressure to spray water on vegetables to remove excess salt PC22. transfer washed vegetables to the pickle mixing machine, prepare spice mix as per formulation, add measured quantity of spice mixture and oil into the vegetables, adjust controls to set mixing speed and start machine to mix all |



FIC/N0107

Pickle making

| | - |
|---------------------|--|
| | the ingredients, check the quality of pickle, and open valve to transfer pickle into container (for pickle in oil) |
| | |
| | PC23. start conveyor and control speed to load cured and washed vegetable into |
| | the hopper of the filling machine (for prickle in brine) |
| | PC24. set pickle and oil filling machine (for pickle in oil) and vegetable and brine |
| | filling machine (for pickle in brine) for filling quantity and volume, start |
| | packaging line conveyor and control speed to ensure containers are |
| | positioned under the filling nozzles of pickle/vegetable and oil/brine |
| | |
| | PC25. load lids and labels in automatic packaging machine, set date code (batch |
| | number, date of manufacture, date of expiry, etc.) start machine, control |
| | speed of conveyor and observe filling of pickle and oil, vegetable and brine, |
| | ensure proper sealing and labeling of containers |
| | PC26. check weight of the filled containers periodically for quantity of vegetable |
| | filled and volume of liquid filled to ensure its conformance to standards |
| | PC27. observe filled container leaving machines to detect defects, check the weight |
| | of the finished product, sample and transfer to quality lab for analysis |
| | |
| | PC28. pack the finished product into cartons and transfer to storage area manually |
| | or mechanically and store following organisation standards |
| | PC29. report discrepancies/concerns to department supervisor for immediate |
| | action |
| | |
| Carry out post | PC30. clean work area, machineries, equipment and tools using approved cleaning |
| production cleaning | agents and sanitizers |
| and regular | PC31. attend minor repairs/faults of all machines (if any) |
| maintenance of | PC32. ensure periodic (daily/weekly/monthly/quarterly/half yearly/annual) |
| equipments | maintenance of all machines and equipment following the SOP or following |
| | suppliers instructions/manuals |
| | |
| Knowledge and Under | standing (K) |
| A. Organizational | The user/individual on the job needs to know and understand: |
| Context | KA1. organization standards, process standards and procedures followed in the |
| (Knowledge of | organisation |
| the company / | KA2. types of products produced by the organisation |
| organization and | KA3. code of business conduct |
| Ũ | KA4. dress code to be followed |
| its processes) | KA5. job responsibilities/duties and standard operating procedures |
| | KA6. internal processes like procurement, store management, inventory |
| | management, quality management and key contact points for query |
| | resolution |
| | KA7. provision of wages, working hours as per organisation policy |
| | KA8. food safety and hygiene standards followed |



Pickle making

| B. Technical | | | |
|-----------------------|--|--|--|
| B. Technical | The user/individual on the job needs to know and understand: | | |
| Knowledge | KB1. types of raw materials (various vegetables) and products prepared from each | | |
| | raw materials | | |
| | KB2. production process, process parameters and product formulation for various | | |
| | products produced | | |
| | KB3. types of machineries used in processing and machineries used in the | | |
| | organisation | | |
| | KB4. handling all machineries | | |
| | KB5. maintenance of machineries, equipments and tools | | |
| | KB6. procedures to handle rejects | | |
| | KB7. quality parameters, basic food microbiology and quality assessment based on physical parameters | | |
| | KB8. types and category of packaging materials, packaging machineries | | |
| | KB9. storage procedures for raw materials, packaging materials and finished goods | | |
| | KB9. storage procedures for raw materials, packaging materials and mismed goods KB10. cleaning procedures such as CIP and COP | | |
| | KB11. knowledge of sanitizers and disinfectants and its handling and storing methods | | |
| | KB12. food laws and regulations on product, packaging and labelling | | |
| | KB13. food safety and hygiene | | |
| | KB14. GMP | | |
| | KB15. HACCP | | |
| Skills (S) [Optional] | | | |
| A. Core Skills/ | / Writing Skills | | |
| Generic Skills | | | |
| Generic Skills | The user/ individual on the job needs to know and understand how to: | | |
| | SA1. note the information communicated by the supervisor | | |
| | | | |
| | SA2. note the raw materials used for production and the finished products | | |
| | SA2. note the raw materials used for production and the finished products produced | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement SA10. read internal information documents sent by internal teams | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement SA10. read internal information documents sent by internal teams Oral Communication (Listening and Speaking skills) | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement SA10. read internal information documents sent by internal teams Oral Communication (Listening and Speaking skills) The user/individual on the job needs to know and understand how to: | | |
| | SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization Reading Skills The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement SA10. read internal information documents sent by internal teams Oral Communication (Listening and Speaking skills) | | |





Pickle making

FIC/N0107

| | CA12 supplies the supervise size and at a state of the set of the set | | |
|------------------------|--|--|--|
| | SA13. question the supervisor in order to understand the nature of the problem and | | |
| | to clarify queries SA14. attentively listen and comprehend the information given by the speaker | | |
| | | | |
| | SA15. communicate clearly with the supervisor and cross department teams on the | | |
| | issues faced during process | | |
| B. Professional Skills | Decision Making | | |
| | The user/individual on the job needs to know and understand how to: | | |
| | SB1. analyse critical points in day to day tasks through experience and observation | | |
| | and identify control measures to solve the issue | | |
| | SB2. handle issues in case the supervisor is not available (as per the authority | | |
| | matrix defined by the organization) | | |
| | Plan and Organize | | |
| | The user/individual on the job needs to know and understand how to: | | |
| | SB3. plan and organize the work order and jobs received from the supervisor | | |
| | SB4. organize raw materials and packaging materials required for all products | | |
| | following the instruction provided by the supervisor | | |
| | SB5. plan and prioritize the work based on the instructions received from the | | |
| | supervisor | | |
| | SB6. plan to utilise time and equipment's effectively | | |
| | SB7. organize all process/ equipment manuals so as to access information easily | | |
| | SB8. support the supervisor in scheduling tasks for helper(s) | | |
| | Customer Centricity | | |
| | The user/individual on the job needs to know and understand how to: | | |
| | SB9. understand customer requirements and their priority and respond as per their | | |
| | needs | | |
| | Problem Solving | | |
| | The user/individual on the job needs to know and understand how to: | | |
| | SB10. support supervisor in solving problems by detailing out problems | | |
| | SB11. discuss the possible solutions with the supervisor for problem solving | | |
| | Analytical Thinking | | |
| | The user/individual on the job needs to know and understand how to: | | |
| | SB12. apply domain information about maintenance processes and technical | | |
| | knowledge about tools and equipment | | |
| | | | |
| | Critical Thinking | | |
| | The user/individual on the job needs to know and understand how to: | | |
| | SB13. use common sense and make judgments on day to day basis | | |
| | SB14. use reasoning skills to identify and resolve basic problems | | |
| | SB15. use intuition to detect any potential problems which could arise during | | |
| | operations | | |
| | SB16. use acquired knowledge of the process for identifying and handling issues | | |



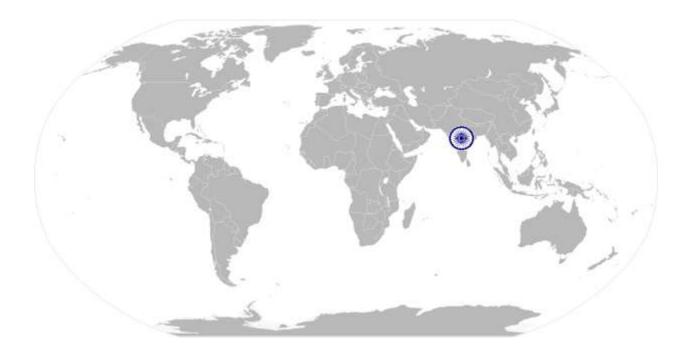




NOS Version Control

| NOS Code | FIC/N0107 | | |
|---------------------|-----------------------|------------------|------------|
| Credits (NSQF) | TBD | Version number | 1.0 |
| Industry | Food Processing | Drafted on | 23/08/15 |
| Industry Sub-sector | Fruits and Vegetables | Last reviewed on | 04/09/2018 |
| Occupation | Processing | Next review date | 30/06/2019 |

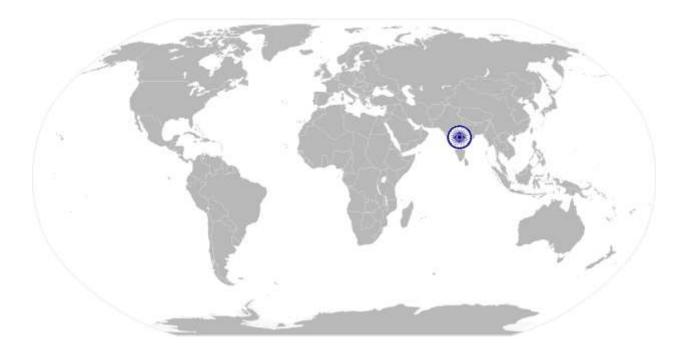
Back to Top







National Occupational Standard



Overview

This OS unit is about documenting and maintaining records of raw materials, process and finished products related to pickle making.





| / | Unit Code | FIC/N0108 | |
|---|---|---|--|
| | Unit Title (Task) | Complete documentation and record keeping related to pickle making | |
| | Description | This unit is about documenting and maintaining records of raw materials, process and finished products related to pickle making. | |
| | Scope | This unit/task covers the following: Document and maintain records of raw materials (related to pickle making) Document and maintai records of production schedule and process parameters (related to pickle making) Document and maintain records of finished products (related to pickle making) | |
| | Performance Criteria(P | C) w.r.t. the Scope | |
| | Element | Performance Criteria | |
| | Document and maintain records of raw materials (related to pickle making) | PC1. document and maintain record of details of raw materials and packaging materials (name of raw materials, type and variety, vendor/supplier details, season, grown area, quantity, receiving date, supplier details, receiving date/ date of manufacture, expiry date, supplier quality document, quality parameters of all raw materials, internal quality analysis report, etc.) as per organisation standards PC2. document and maintain record on observations (if any) related to raw materials and packaging materials PC3. load the raw materials details in ERP for future reference PC4. verify the documents and track from finished product to raw materials, in case of quality concerns and during quality management system audits | |
| | Document and maintain records of production schedule and process parameters (related to pickle making) | PC5. document and maintain records of production plan with details (product details, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment) PC6. document and maintain records of process details (type or raw material used, process parameters such as temperature, time, pressure, etc. as applicable) for entire production in process chart or production log for all products produced PC7. document and maintain records of batch size, production yield, wastage of raw materials, energy utilization and final products produced PC8. document and maintain record of observations (if any) or deviations related to process and production PC9. load the production plan and process details in ERP for future reference PC10. verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits | |
| | Document and maintain records of the finished products | PC11. document and maintain records of the types of finished products produced PC12. document and maintain records of the finished products details (batch number, time of packing, date of manufacture, date of expiry, other label | |





| (related to pickle making) | details, primary, secondary and tertiary packaging materials, storage conditions, etc.) as per organisation standards PC13. document and mmaintain record on observations or deviations (if any) related to finished products PC14. load the finished product details in ERP for future reference PC15. verify the documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits |
|--|---|
| Knowledge and Unders | |
| A. Organizational Context (Knowledge of the company / organization and its processes) | The user/individual on the job needs to know and understand: KA1. organization standards, process standards and procedures followed in the organisation KA2. types of products produced by the organisation KA3. code of business conduct KA4. dress code to be followed KA5. job responsibilities/duties and standard operating procedures KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution KA7. provision of wages, working hours and accident compensation as per organisation policy |
| D. Taskaisal | KA8. food safety and hygiene standards followed |
| B. Technical Knowledge Skills (S) [Optional] | The user/individual on the job needs to know and understand: KB1. documentation system followed in the organization such as production chart, process chart and finished goods chart KB2. details to be recorded on raw materials and finished products KB3. details to be recorded and maintained on production plan and process parameters KB4. methods to docuemnt and maintain records on observations (if any) related to raw materials, process and finished products KB5. methods to track back the record from finished product to raw material KB6. basic computer knowledge KB7. entering details in the ERP system followed by the organisation |
| | |
| A. Core Skills/ Generic Skills | Writing Skills The user/ individual on the job needs to know and understand how to: SA1. note the information communicated by the supervisor SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization |





| | Reading Skills |
|------------------------|--|
| | The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced SA9. read equipment manuals and process documents to understand the equipments operation and process requirement SA10. read internal information documents sent by internal teams Oral Communication (Listening and Speaking skills) |
| | The user/individual on the job needs to know and understand how to: SA11. discuss task lists, schedules and activities with the supervisor SA12. effectively communicate with the team members SA13. question the supervisor in order to understand the nature of the problem and to clarify queries SA14. attentively listen and comprehend the information given by the speaker SA15. communicate clearly with the supervisor and cross department teams on the issues faced during process |
| B. Professional Skills | Decision Making The user/individual on the job needs to know and understand how to: SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization) |
| | Plan and Organize The user/individual on the job needs to know and understand how to: SB3. plan and organize the work order and jobs received from the supervisor SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor SB5. plan and prioritize the work based on the instructions received from the supervisor SB6. plan to utilise time and equipment's effectively SB7. organize all process/ equipment manuals so as to access information easily SB8. support the supervisor in scheduling tasks for helper(s) |
| | Customer Centricity The user/individual on the job needs to know and understand how to: SB9. understand customer requirements and their priority and respond as per their needs Problem Solving The user/individual on the job needs to know and understand how to: SB10. support supervisor in solving problems by detailing out problems SB11. discuss the possible solutions with the supervisor for problem solving Analytical Thinking The user/individual on the job needs to know and understand how to: SB12. apply domain information about maintenance processes and technical knowledge about tools and equipment |





| Critical Thinking |
|---|
| The user/individual on the job needs to know and understand how to: |
| SB13. use common sense and make judgments on day to day basis |
| SB14. use reasoning skills to identify and resolve basic problems |
| SB15. use intuition to detect any potential problems which could arise during |
| operations |
| SB16. use acquired knowledge of the process for identifying and handling issues |



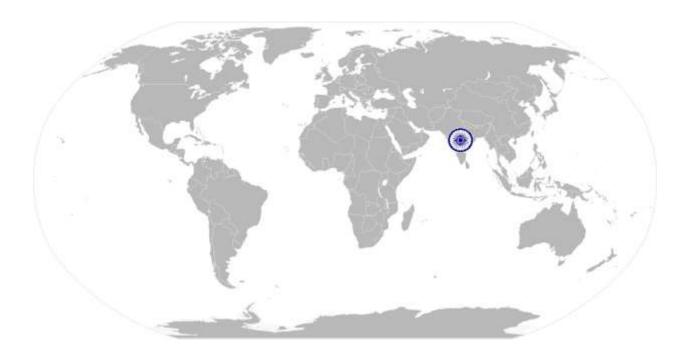




NOS Version Control

| NOS Code | FIC/N0108 | | | | |
|---------------------|------------------------|------------------|------------|--|--|
| Credits (NSQF) | TBD Version number 1.0 | | | | |
| Industry | Food Processing | Drafted on | 23/08/15 | | |
| Industry Sub-sector | Fruits and Vegetables | Last reviewed on | 04/09/2018 | | |
| Occupation | Processing | Next review date | 30/06/2019 | | |

Back to Top



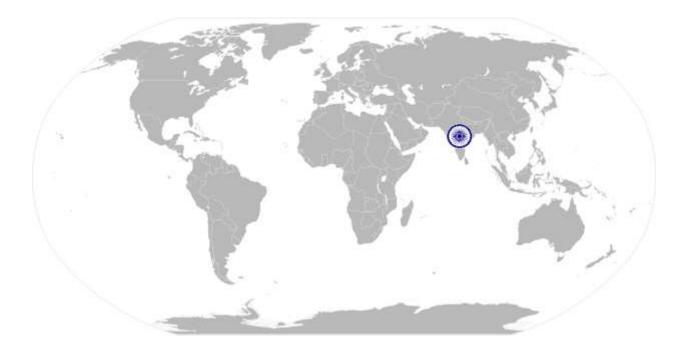




FIC/N9001

Food safety, hygiene and sanitation for processing food products

National Occupational Standard



Overview

This OS unit is about maintaining food safety, hygiene and sanitation in work area and processing unit while processing food products.



FIC/N9001

| Unit Code | FIC/N9001 | | |
|--|---|--|--|
| Unit Title (Task) | Food safety, hygiene and sanitation for processing food products | | |
| Description | This unit is about maintaining food safety, hygiene and sanitation in work area and processing unit for processing food products. | | |
| Scope | The scope of this role will include: Perform safety and sanitation related functions (for processing food products) Apply food safety practices (for processing food products) | | |
| Performance Criteria(P | C) w.r.t. the Scope | | |
| Element | Performance Criteria | | |
| Perform safety and sanitation related functions (for processing food products) | PC1. comply with food safety and hygiene procedures followed in the organisation PC2. ensure personal hygiene by use of gloves, hairnets, masks, ear plugs, goggles, shoes, etc. PC3. ensure hygienic production of food by inspecting raw materials, ingredients, finished products, etc. for compliance to physical, chemical and microbiological parameters PC4. pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations PC5. clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose PC6. use safety equipment such as fire extinguisher, first aid kit and eye-wash station when required PC7. follow housekeeping practices by having designated area for materials/tools PC8. follow industry standards like GMP and HACCP and product recall process PC9. attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them PC10. identify, document and report problems such as rodents and pests to management PC11. conduct workplace checklist audits before and after work to ensure safety and hygiene PC12. document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system | | |
| Apply food safety practices (for processing food products) | PC13. determine the quality of food using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage PC14. store raw materials, finished products, allergens separately to prevent cross-contamination PC15. label raw materials and finished products and store them in designated storage areas according to safe food practices | | |





FIC/N9001

| | PC16. follow stock rotation based on FEFO/ FIFO |
|--|---|
| Knowledge and Unders | standing (K) |
| A. Organizational Context (Knowledge of the company / organization and its processes) | The user/individual on the job needs to know and understand: KA1. organization standards, process standards and procedures followed in the organisation KA2. types of products produced by the organisation KA3. code of business conduct KA4. dress code to be followed KA5. job responsibilities/duties and standard operating procedures KA6. internal processes such as procurement, store management, inventory management, quality management and key contact points for query resolution KA7. provision of wages, working hours as per organisation policy KA8. food safety and hygiene standards followed |
| B. Technical Knowledge | The user/individual on the job needs to know and understand: KB1. possible physical, chemical and biological hazards and methods of prevention of various hazards KB2. personal hygiene requirement KB3. different types of sanitizers used for process area, equipment and the procedure to use them KB4. knowledge on Food Safety Standards and Regulations (as per FSSAI) KB5. quality parameters and quality assessment based on physical parameters, basic food microbiology KB6. labelling/marking requirements for raw materials, finished goods, stored materials, packaging materials and their designated storage area KB7. cleaning and sanitation of equipment and work area KB8. CIP and COP methods and procedures KB9. storage norms for raw materials, packaging material and finished products KB10. stock rotation of ingredients and finished products based on FEFO/FIFO KB11. method of maintaining safety check lists for all machineries KB12. GHP KB13.GMP KB14.HACCP |
| Skills (S) [Optional] | Writing Skills |
| A. Core Skills/ Generic Skills | The user/ individual on the job needs to know and understand how to: SA1. note the information communicated by the supervisor SA2. note the raw materials used for production and the finished products produced SA3. note the readings of the process parameters and provide necessary information to fill the process chart SA4. note down observations (if any) related to the process SA5. write information documents to internal departments/ internal teams SA6. note down the data for online ERP or as per applicability in the organization |





FIC/N9001

| | Reading Skills | | | | |
|------------------------|--|--|--|--|--|
| | The user/individual on the job needs to know and understand how to: SA7. read and interpret the process required for producing various types of products SA8. read and interpret and process flowchart for all products produced | | | | |
| | SA9. read equipment manuals and process documents to understand the equipments operation and process requirement | | | | |
| | SA10. read internal information documents sent by internal teams | | | | |
| | Oral Communication (Listening and Speaking skills) | | | | |
| | The user/individual on the job needs to know and understand how to: | | | | |
| | SA11. discuss task lists, schedules and activities with the supervisor | | | | |
| | SA12. effectively communicate with the team members | | | | |
| | SA13. question the supervisor in order to understand the nature of the problem and to clarify queries | | | | |
| | SA14. attentively listen and comprehend the information given by the speaker | | | | |
| | SA15. communicate clearly with the supervisor and cross department teams on the | | | | |
| | issues faced during process | | | | |
| B. Professional Skills | Decision Making | | | | |
| | The user/individual on the job needs to know and understand how to: | | | | |
| | SB1. analyse critical points in day to day tasks through experience and observation and identify control measures to solve the issue | | | | |
| | SB2. handle issues in case the supervisor is not available (as per the authority matrix defined by the organization) | | | | |
| | Plan and Organize | | | | |
| | The user/individual on the job needs to know and understand how to: | | | | |
| | SB3. plan and organize the work order and jobs received from the supervisor | | | | |
| | SB4. organize raw materials and packaging materials required for all products following the instruction provided by the supervisor | | | | |
| | SB5. plan and prioritize the work based on the instructions received from the | | | | |
| | supervisor | | | | |
| | SB6. plan to utilise time and equipment's effectively | | | | |
| | SB7. organize all process/ equipment manuals so as to access information easily | | | | |
| | SB8. support the supervisor in scheduling tasks for helper(s) | | | | |
| | Customer Centricity | | | | |
| | The user/individual on the job needs to know and understand how to: | | | | |
| | SB9. understand customer requirements and their priority and respond as per their needs | | | | |
| | Problem Solving | | | | |
| | The user/individual on the job needs to know and understand how to: | | | | |
| | SB10. support supervisor in solving problems by detailing out problems | | | | |
| | SB11. discuss the possible solutions with the supervisor for problem solving | | | | |
| | Analytical Thinking | | | | |
| | The user/individual on the job needs to know and understand how to: | | | | |
| | SB12. apply domain information about maintenance processes and technical | | | | |
| | knowledge about tools and equipment | | | | |





FIC/N9001

| Critical Thinking |
|---|
| The user/individual on the job needs to know and understand how to: |
| SB13. use common sense and make judgments on day to day basis |
| SB14. use reasoning skills to identify and resolve basic problems |
| SB15. use intuition to detect any potential problems which could arise during |
| operations |
| SB16. use acquired knowledge of the process for identifying and handling issues |



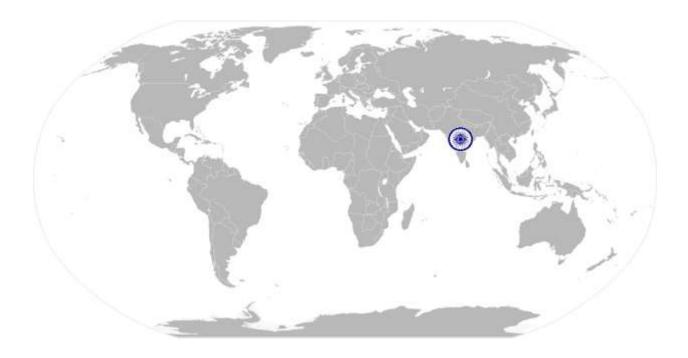


FIC/N9001 Food safety, hygiene and sanitation for processing food products

NOS Version Control

| NOS Code | FIC/N9001 | | | | |
|---------------------|------------------------|------------------|------------|--|--|
| Credits (NSQF) | TBD Version number 1.0 | | | | |
| Industry | Food Processing | Drafted on | 23/08/15 | | |
| Industry Sub-sector | Fruits and Vegetables | Last reviewed on | 04/09/2018 | | |
| Occupation | Processing | Next review date | 30/06/2019 | | |

Back to Top





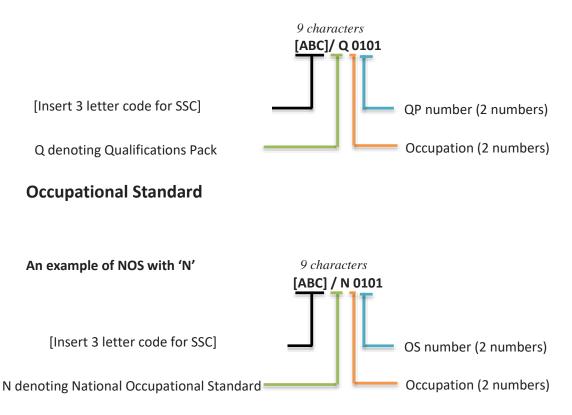


Qualifications Pack for Pickle Making Technician

Annexure

Nomenclature for QP and NOS

Qualifications Pack



Back to top...





Qualifications Pack for Pickle Making Technician

The following acronyms/codes have been used in the nomenclature above:

| Sub-sector | Range of Occupation numbers | |
|---|--------------------------------|--|
| Fruit and Vegetable | 01 – 09 | |
| Food Grain Milling (including Oilseeds) | 10 - 19 | |
| Dairy products | 20 - 30 | |
| Meat and Poultry | 30 – 40 | |
| Fish and Sea Food | 40 - 49 | |
| Bread and Bakery | 50 - 59 | |
| Alcoholic Beverages | 60.60 | |
| Aerated water/ soft drinks | 60 - 69 | |
| Quality Analysis (involving physical and chemical lab analysis) | 76 – 79 | |
| Packaging, Refrigeration and Procurement | 70 – 75 | |
| Miscellaneous | 80 - 84 | |
| Packaged Foods | 85 - 90 | |
| Soya Food Processing | 90 - 95 | |

| Sequence | Description | Example |
|------------------|-------------------|---------|
| Three letters | Industry name | FIC |
| Slash | / | / |
| Next letter | Whether QP or NOS | Q or N |
| Next two numbers | Occupation code | 01 |
| Next two numbers | OS number | 01 |

Note:

• The range of occupation numbers have been decided based on the number of existing and future occupations in a segment





Job Role Pickle Making Technician Qualification Pack FIC/Q0102

Sector Skill Council Food Processing

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC

2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

3. Assessment will be conducted for all compulsory NOS, as well as the selected elective NOS/set of NOS. OR

4. Assessment will be conducted for all compulsory NOS, as well as the selected optional NOS/set of NOS.

5. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)

6. Individual assessment agencies will create unique evaulations for skill practical for every student at each examination/training center based on this criteria

7. To pass the Qualification Pack , every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.

8. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

| 1 | | | Marks A | llocation | |
|--|---|----------------------------|---------|-----------|---------------------|
| | | Total Marks | Out Of | Theory | Skills Practical |
| 1. FIC/N0105 (Prepare and maintain work area and process machineries for pickle making) | PC1. Clean and maintain the clean the work area using approved sanitizers and keep it free from waste, flies and pests | 10.9 | 25 | 10 | 15 |
| X | PC2. Ensure that the work area is s hygienic for food processing | afe and | 10 | 3 | 7 |
| | PC3. Dispose waste materials as pe defined sops and industry requirements | r | 15 | 5 | 10 |
| | PC4. Check the working and perfor of all machineries and tools u the pickle making process suc washer, peeler, vegetable cutter/slicer, blender, packag machines, etc. | sed for h as 100 | 15 | 5 | 10 |
| | PC5. Clean the machineries and too with approved sanitizers follo SOP | | 15 | 5 | 10 |
| | PC6. Place the necessary tools requ process | ired for | 5 | 2 | 3 |
| | PC7. Attend to the minor repairs/ f all machines, if required | aults of | 15 | 5 | 10 |





| | | | 100 | 35 | 65 |
|---|--|----------|-----|----|----|
| 2. FIC/N0106 (Prepare for pickle making) | PC1. Read and understand the production order from the supervisor | | 10 | 4 | 6 |
| | PC2. Check the availability of raw materials, packaging materials, equipment availability and manpower | | 5 | 2 | 3 |
| | PC3. Support in planning production sequence by | | | | |
| | Grouping products from same variety of raw material | | | | |
| | Grouping products that require same process | | | | |
| | Selecting raw materials that do not impact the quality of the other | - | | | |
| | Avoiding CIP after each product | Sec. The | 15 | 5 | 10 |
| | Using the same equipment and machinery for various products | | 55 | 2 | |
| | Planning maximum capacity utilization of machineries | 100 | 14 | | |
| | Considering the process time for each product | 1.6 | A | 5 | |
| | Planning efficient utilization of resources/manpower | | 1 | 1 | |
| | Prioritizing urgent orders | 1 | 1 | 1 | |
| | PC4. Calculate the batch size based on the production order and machine capacity | | 5 | 2 | 3 |
| | PC5. Calculate the raw material | | | | |
| | requirement (considering the process loss) to produce the required quantity of finished product(s) | | 5 | 2 | 3 |
| | PC6. Calculate the raw materials, packaging materials and manpower requirement for completing the order | | 5 | 2 | 3 |
| | PC7. Ensure the working and performance of each equipment required for the process | | 7 | 2 | 5 |

National Occupational Standards



| | | |] | | | |
|------------------------------|-------|--|-----|-----|-----|-----|
| | PC8. | Calculate the process time for effective utilization of machineries | | 7 | 2 | 5 |
| | PC9. | Plan batch size considering full capacity utilization of machineries | | 3 | 1 | 2 |
| | PC10. | Plan to utilize machineries for multiple products without affecting the quality of the finished products, and to optimize production and save energy | | 3 | 1 | 2 |
| | PC11. | Allot responsibilities/ work to the assistants and helpers | | 5 | 1.5 | 3.5 |
| | PC12. | Refer to the process chart/ product flow chart/formulation chart for product(s) produced | | 3 | 1 | 2 |
| | PC13. | Weigh the raw materials required for the batch | | 5 | 1 | 4 |
| | PC14. | Sharpen and change blades of cutting/slicing machine as required for the product produced | | 3 | 1 | 2 |
| | PC15. | Check the conformance of raw material quality to organisation standards, through physical analysis and by referring the quality analysis report from the supplier/ internal lab analysis report | • | 10 | 4 | 6 |
| | PC16. | Ensure working and performance of required machineries and tools | 1 | K 7 | 3 | 4 |
| | PC17. | Keep the tools accessible to attend repairs/faults in case of breakdown | 1 | 2 | 0.5 | 1.5 |
| N | 1 | 11 | | 100 | 35 | 65 |
| 3. FIC/N0107 (Pickle making) | PC1. | Receive vegetables from the supplier/vendor, check weight and check quality through physical parameters such as appearance, colour, texture, maturity, etc. | 2 | 3 | 1.5 | 1.5 |
| | PC2. | Pump water into the washing tank and control water level, dump vegetables into the washing tank for washing or wash and rinse the vegetables manually | 100 | 2 | 0.5 | 1.5 |
| | PC3. | Start the ladder conveyor to lift the vegetables from the washing tank and to transfer to the conveyor | | 2 | 0.5 | 1.5 |
| | PC4. | Open valves of the high pressure spraying system for fresh water and | | 2 | 0.5 | 1.5 |

National Occupational Standards

N·S·D·C National Skill Development Corporation

| | | Assessment citteria | | | | |
|-----|---------|---|---------------|---------|----------|-----|
| | | adjust pressure to spray water on vegetables for rinsing | | | | |
| | PC5. | | | | | |
| | PC5. | Control speed of drying line | | | | |
| | | conveyor, control air temperature | | | | |
| | | and fan speed/air flow and start | | 2 | 4.5 | 4 5 |
| | | conveyor to dry vegetables or start | | 3 | 1.5 | 1.5 |
| | | roller conveyor with rolling brushes | | | | |
| | | for wiping and transfer vegetables to | | | | |
| | | sorting line | | | | |
| | PC6. | Start and adjust speed of | | | | |
| | | sorting/inspecting line conveyor to | | 3 | 1.5 | 1.5 |
| | | remove damaged, blemished and | | | | |
| | | rotten vegetables | | | | |
| | PC7. | Dump the sorted vegetables in the | | | | |
| | | peeling machine (depending on the | | | | |
| | | type of vegetable), start the peeler | | | | |
| | | machine and adjust the speed to | | 3 | 1.5 | 1.5 |
| | | remove the peel, pump water or | | | | |
| | | open valve/spraying system to wash | | | | |
| | | the peeled vegetables (or) | | | | |
| | PC8. | Prepare lye solution by adding | | | | |
| | A State | measured quantity of lye chemical | Contra Theory | | | |
| 2 2 | | and water into lye tank, turn valves | | 1111 | - | |
| ~ | 1.0 | to admit steam to heat lye solution, | | - P | | |
| | 3. 3 | start conveyor and adjust speed to | 1000 | 3 | 1 | 2 |
| | 100 | carry manually/mechanically into the | | 6.2 | - No. | |
| 1 | | lye tank, and pull out the basket after | San 30 | 1 | | |
| | 1 | specified time following sop (lye | | P () | | |
| - | 8 | peeling) | Y .76 | 30 | | |
| | PC9. | Observe vegetable emerging from | 2 1 | 120 | 1. C | |
| | 2 | lye peeling machine /lye tank to | Sec. 9 | 5 3 | 0.5 | 1.5 |
| | 15 and | ensure removal of peel and open | | A Ref L | 0.5 | 1.5 |
| | | valves to drain the excess lye solution | | | 1. 1. 1. | |
| | PC10. | Load the vegetables in the | | | | |
| | | cutter/slicer machine, adjust controls | | - A. | - 1 V | |
| | 1 2 | to cut vegetables to required size, | | 4 | 1 | 3 |
| | 1 | start machine, collect sliced | | | ~ | |
| | | vegetables from the discharge chute | | | 1 | |
| | PC11. | Start inspection line conveyor and | 8 | | | |
| | 2 | control speed, transfer cut/sliced | | - | | |
| | | vegetable on the conveyor belt, | | | | |
| | | visually inspect sliced vegetables for | | 3 | 1 | 2 |
| | | conformance to organisation | | | | |
| | | standards and remove non- | | | | |
| | | conforming materials from the line | | | | |
| | PC12. | Open valve to admit measured | | | | |
| | | quantity of water into steam | | | | |
| | | jacketed kettle/tank, observe water | | | | |
| | | gauge or designated mark for filled | | 2 | 0.5 | 1.5 |
| | | quantity, weigh required quantity of | | | | |
| | | salt as per formulation and add into | | | | |
| | | tank to prepare brine solution | | | | |
| | L | | J | l | | |

National Occupational Standards



| | Assessment Criteria | | | | |
|-------|--|-----|-----|----------|-----|
| PC13. | Start and control speed of the agitator of the steam jacketed kettle/tank, turn valves to set required pressure and open valve to admit steam to heat the solution following sop | | 4 | 1 | 3 |
| PC14. | Observe pressure and temperature gauge, and regulate steam to maintain temperature, check brine solution using salinometer equipment to ensure conformance of its specifications to standards | | 4 | 1 | 3 |
| PC15. | Open valve or start pump to transfer brine solution from mixing tank to storage or holding tanks for later use | | 1 | 0.5 | 0.5 |
| PC16. | Start pump to transfer measured quantity of brine solution from storage tank/kettle to the curing drums/barrels, add measured quantity of cut/whole vegetables, close with lid and allow to stand for specified time (few weeks) for curing/natural fermentation following sop | | 4 | 1 | 3 |
| PC17. | Mix the vegetables periodically either mechanically/manually for salt equilibrium, sample and check for acidity to ensure completion of fermentation | • | 3 | 1 | 2 |
| PC18. | Store cured vegetable following sop | 1 1 | - 2 | 1 | 1 |
| PC19. | until further process Refer to the work order and | | 2 | 1 | 1 |
| PC20. | formulation for the product/batch Organize required raw material (cured vegetable), ingredients, spices, packaging material, etc. From store and check its conformance to standards, through physical parameters | 1 | 3 | 1 | 2 |
| PC21. | Remove cured vegetables from drums/barrels/tank and transfer into the washing tank, pump water into tank to wash vegetables to remove excess salt, open valve to drain water or dump on the washing line and start the conveyor, open valves of the high pressure spraying system for fresh water and adjust pressure to spray water on vegetables to remove excess salt | | 6 | 2 | 4 |
| PC22. | Transfer washed vegetables to the pickle mixing machine, prepare spice | | 6 | 2 | 4 |
| | mix as per formulation, add | J | | Page / | 12 |

National Occupational Standards



| measured quantity of spice mixture | |
|---|-----|
| and oil into the vegetables, adjust | |
| controls to set mixing speed and | |
| start machine to mix all the | |
| ingredients, check the quality of | |
| pickle, and open valve to transfer | |
| pickle into container (for pickle in oil) | |
| PC23. Start conveyor and control speed to | |
| load cured and washed vegetable | |
| into the hopper of the filling 3 1.5 | 1.5 |
| machine (for pickle in brine) | |
| PC24. Set pickle and oil filling machine (for | |
| pickle in oil) and vegetable and brine | |
| filling machine (for pickle in brine) for | |
| filling quantity and volume, start | |
| packaging line conveyor and control 6 2 | 4 |
| | |
| speed to ensure containers are | |
| positioned under the filling nozzles of | |
| pickle/vegetable and oil/brine | |
| PC25. Load lids and labels in automatic | |
| packaging machine, set date code | |
| (batch number, date of manufacture, | |
| date of expiry, etc.) Start machine, 4 2 | 2 |
| control speed of conveyor and | - |
| observe filling of pickle and oil, | |
| vegetable and brine, ensure proper | |
| sealing and labeling of containers | |
| PC26. Check weight of the filled containers | |
| periodically for quantity of vegetable 3 1 | 2 |
| filled and volume of liquid filled to | 2 |
| ensure its conformance to standards | |
| PC27. Observe filled container leaving | |
| machines to detect defects, check | 1 |
| the weight of the finished product, 3 1 | 2 |
| sample and transfer to quality lab for | |
| analysis | |
| PC28. Pack the finished product into | |
| cartons and transfer to storage area | |
| manually or mechanically and store 2 0.5 | 1.5 |
| following organisation standards | |
| PC29. Report discrepancies/concerns to | |
| department supervisor for 2 1 | 1 |
| immediate action | - |
| PC30. Clean work area, machineries, | |
| | 3 |
| | 5 |
| cleaning agents and sanitizers | |
| PC31. Attend minor repairs/faults of all 4 1 | 3 |
| machines (if any) | |
| PC32. Ensure periodic | |
| (daily/weekly/monthly/quarterly/half 2 1 | 1 |
| yearly/annual) maintenance of all | |
| machines and equipment following | |





| | | the sop or following suppliers instructions/manuals | | | | |
|---|-------|--|-----|-----|----|----|
| | | | | 100 | 35 | 65 |
| 4. FIC/N0108 | PC1. | Document and maintain record of | | 100 | 35 | 05 |
| (Complete documentation and record keeping related to pickle making) | | details of raw materials and packaging materials (name of raw materials, type and variety, vendor/supplier details, season, grown area, quantity, receiving date, supplier details, receiving date/ date of manufacture, expiry date, supplier | 100 | 10 | 6 | 4 |
| | PC2. | quality document, quality parameters of all raw materials, internal quality analysis report, etc.) as per organisation standards Document and maintain record on | - | | | |
| | | observations (if any) related to raw materials and packaging materials | | 5 | 3 | 2 |
| | PC3. | Load the raw materials details in ERP for future reference | | 5 | 3 | 2 |
| | PC4. | Verify the documents and track from finished product to raw materials, in case of quality concerns and during quality management system audits | | 5 | 3 | 2 |
| | PC5. | Document and maintain records of production plan with details (product details, production sequence, equipments and machinery details, efficiency and capacity utilization of equipment) | • | 10 | 6 | 4 |
| | PC6. | Document and maintain records of process details (type or raw material used, process parameters such as temperature, time, pressure, etc. as applicable) for entire production in process chart or production log for all products produced | | 15 | 9 | 6 |
| | PC7. | Document and maintain records of batch size, production yield, wastage of raw materials, energy utilization and final products produced | 2 | 10 | 6 | 4 |
| | PC8. | Document and maintain record of observations (if any) or deviations related to process and production | | 5 | 3 | 2 |
| | PC9. | Load the production plan and process details in ERP for future reference | - | 5 | 3 | 2 |
| | PC10. | Verify documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits | | 5 | 3 | 2 |

National Occupational Standards



| | PC11. | Document and maintain records of the types of finished products produced | | 3 | 2 | 1 |
|--|-------|--|-----|-----|----|----|
| | PC12. | Document and maintain records of the finished products details (batch number, time of packing, date of manufacture, date of expiry, other label details, primary,secondary and tertiary packaging materials, storage conditions, etc.)as per organisation standards | | 7 | 4 | 3 |
| | PC13. | Document and mmaintain record on observations or deviations (if any) related to finished products | | 5 | 3 | 2 |
| | PC14. | Load the finished product details in ERP for future reference | | 5 | 3 | 2 |
| | PC15. | Verify the documents and track from finished product to ingredients, in case of quality concerns and for quality management system audits | | 5 | 3 | 2 |
| | | | | 100 | 60 | 40 |
| 5. FIC/N9001 (Food safety, hygiene and sanitation for processing | PC1. | Comply with food safety and hygiene procedures followed in the organisation | | 5 | 2 | 3 |
| food products) | PC2. | Ensure personal hygiene by use of gloves, hairnets, masks, ear plugs, goggles, shoes, etc. | | 6 | 1 | 5 |
| | PC3. | Ensure hygienic production of food by inspecting raw materials, ingredients, finished products, etc. for compliance to physical, chemical and microbiological parameters | | 5 | 2 | 3 |
| | PC4. | Pack products in appropriate packaging materials, label and store them in designated area, free from pests, flies and infestations | J | 10 | 4 | 6 |
| | PC5. | Clean, maintain and monitor food processing equipment periodically, using it only for the specified purpose | 100 | 5 | 2 | 3 |
| | PC6. | Use safety equipment such as fire extinguisher, first aid kit and eye- wash station when required | | 10 | 4 | 6 |
| | PC7. | Follow housekeeping practices by having designated area for materials/tools | | 5 | 2 | 3 |
| | PC8. | Follow industry standards like GMP and HACCP and product recall process | | 10 | 4 | 6 |
| | PC9. | Attend training on hazard management to understand types of | | 5 | 1 | 4 |

National Occupational Standards



| S | | | (•) | 100 | 35 | 65 |
|---|-------|---|-----|-----|----|----|
| | PC16. | Follow stock rotation based on FEFO/ FIFO | | 10 | 4 | 6 |
| | PC15. | Label raw materials and finished products and store them in designated storage areas according to safe food practices | | 5 | 2 | 3 |
| | PC14. | Store raw materials, finished products, allergens separately to prevent cross-contamination | | 5 | 2 | 3 |
| | PC13. | Determine the quality of food using criteria such as odour, appearance, taste and best before date, and take immediate measures to prevent spoilage | | 5 | 2 | 3 |
| | PC12. | Document and maintain raw material, packaging material, process and finished products for the credibility and effectiveness of the food safety control system | | 4 | 1 | 3 |
| | PC11. | Conduct workplace checklist audits before and after work to ensure safety and hygiene | | 5 | 1 | 4 |
| | PC10. | Identify, document and report problems such as rodents and pests to management | | 5 | 1 | 4 |
| | | and biological hazards and measures to control and prevent them | | | | |