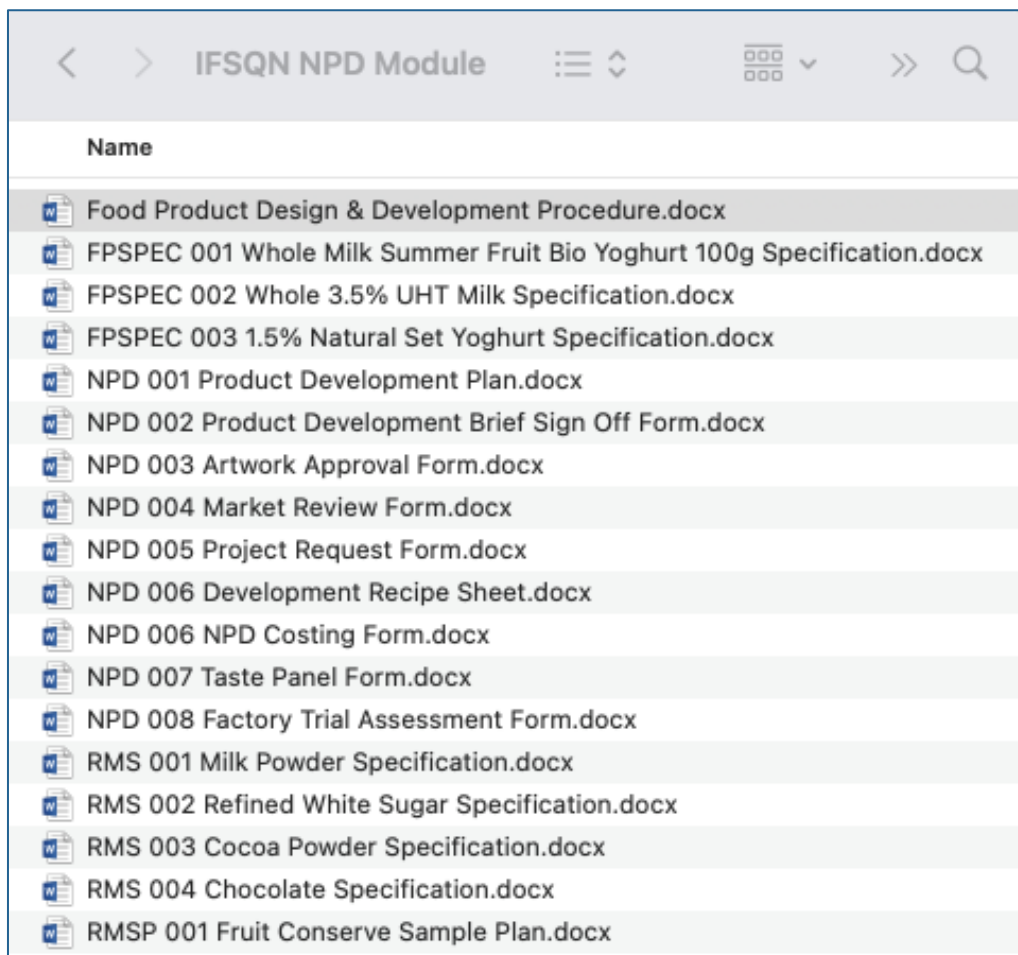


New Product Development Module for Food Operations

Included in the New Product Development for Food Operations:

- ✓ Comprehensive NPD Procedure
- ✓ Product Development Plan Template
- ✓ Example Product Development Forms
- ✓ Finished Product Specification Examples
- ✓ Raw Material Specification Examples
- ✓ Product Assessment Templates



The screenshot shows a file explorer window titled "IFSQN NPD Module". The file list includes:

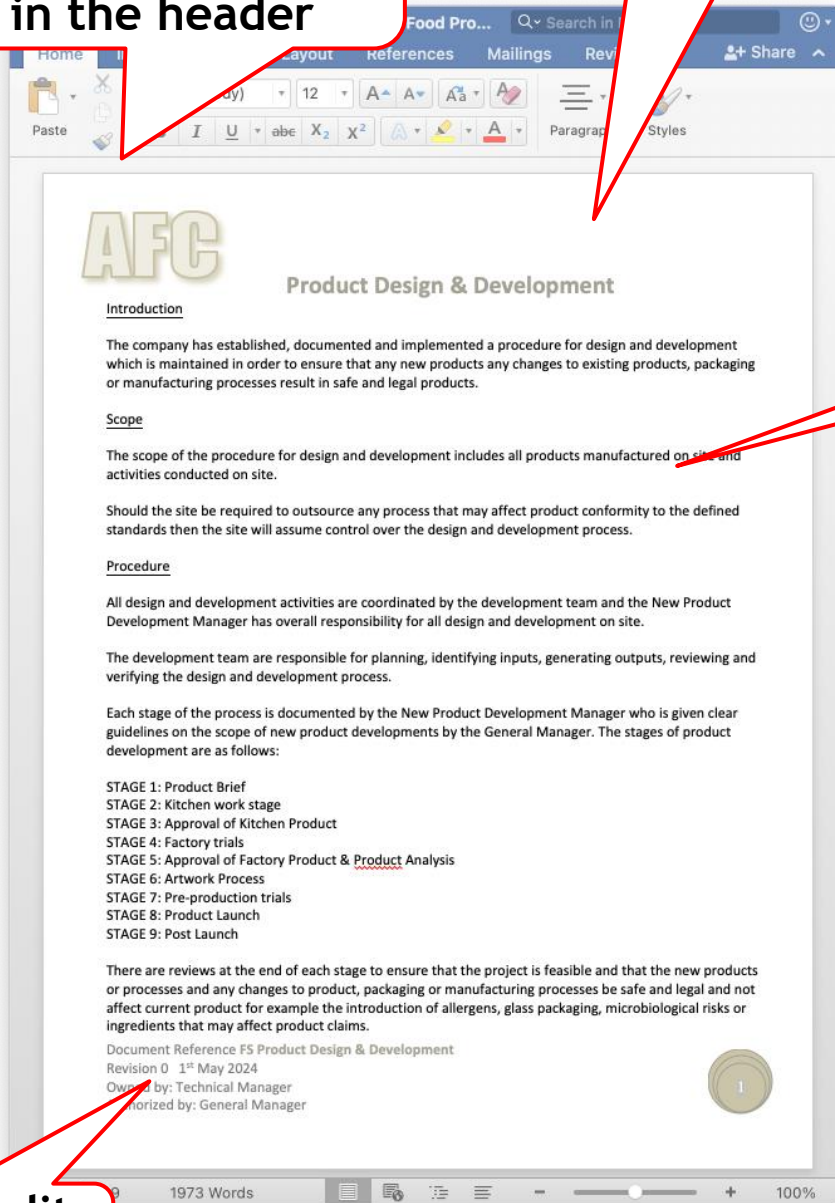
Name
Food Product Design & Development Procedure.docx
FPSPEC 001 Whole Milk Summer Fruit Bio Yoghurt 100g Specification.docx
FPSPEC 002 Whole 3.5% UHT Milk Specification.docx
FPSPEC 003 1.5% Natural Set Yoghurt Specification.docx
NPD 001 Product Development Plan.docx
NPD 002 Product Development Brief Sign Off Form.docx
NPD 003 Artwork Approval Form.docx
NPD 004 Market Review Form.docx
NPD 005 Project Request Form.docx
NPD 006 Development Recipe Sheet.docx
NPD 006 NPD Costing Form.docx
NPD 007 Taste Panel Form.docx
NPD 008 Factory Trial Assessment Form.docx
RMS 001 Milk Powder Specification.docx
RMS 002 Refined White Sugar Specification.docx
RMS 003 Cocoa Powder Specification.docx
RMS 004 Chocolate Specification.docx
RMSP 001 Fruit Conserve Sample Plan.docx

Editable NPD Procedures and Records in Microsoft Word format

For example put your company logo or name and address in the header

You can edit the header

You can edit the main text



You can edit the footer

These New Product Development Templates give you the foundations to develop your NPD documentation, saving you time and money getting your NPD department up to speed.

Comprehensive Food Product Design & Development Procedure plus other supplementary documentation

Food Pro... Search in Document

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AFC Product Design & Development

Introduction

The company has established, documented and implemented a procedure for design and development which is maintained in order to ensure that any new products any changes to existing products, packaging or manufacturing processes result in safe and legal products.

Scope

The scope of the procedure for design and development includes all products manufactured on site and activities conducted on site.

Objectives

Should the site be required to outsource any process that may affect product conformity to the defined standards then the site will ensure control over the design and development process.

Procedure

All design and development activities are coordinated by the development team and the New Product Development Manager has overall responsibility for all design and development on site.

The development team are responsible for planning, identifying inputs, generating outputs, reviewing and verifying the design and development process.

Each stage of the process is documented by the New Product Development Manager who is given clear guidelines on the scope of new product developments by the General Manager. The stages of product development are as follows:

- STAGE 1: Product Brief
- STAGE 2: Market work stage
- STAGE 3: Approval of Kitchen Product
- STAGE 4: Factory trials
- STAGE 5: Approval of Factory Product & Recipe Analysis
- STAGE 6: Artwork Process
- STAGE 7: Pre production trials
- STAGE 8: Product Launch
- STAGE 9: Post Launch

There are reviews at the end of each stage to ensure that the project is feasible and that the new products or processes and any changes to product, packaging or manufacturing processes be safe and legal and not affect current product for example the introduction of allergens, glass packaging, microbiological risks or ingredients that may affect product safety.

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
Owned by: Technical Manager
Author led by: General Manager

AFC Product Design & Development

Introduction

All the product brief stage the development team will carry out a risk assessment to ensure that the intended product does not pose any safety hazards. Clear guidelines on any restrictions to the scope of new product developments to control the introduction of hazards which would be unacceptable to the company or customers are based by the Senior Management team.

The Development team take into consideration product allergens and cross contamination, recall, contamination of regular products with cross products and preservation of products and how these materials will be handled to ensure food quality, safety and legality are maintained. For all preserved products including organic, SOG, and certified origin, the product development team carry out a risk assessment of the raw material to identify nature of contamination and confirm compliance with specification throughout the purchasing and supply chain. The appropriate procedures are then applied to handling raw material, intermediate product and end product to prevent cross contamination and preserve the identity status of the product.

When packaging materials pose a product safety risk, special handling procedures are introduced to prevent product contamination or spoilage. When special procedures are introduced, near production records are developed, established and maintained to log failures and corrective actions taken. The result of this review is recorded and actions included in the design and development plan.

New Products, Plant and Equipment

New Plant and Equipment requirements are authorized by the Managing Director. The Engineering Manager is responsible for sourcing new Plant and Equipment and the Senior Management Team including the New Product Development Manager and Technical Manager approved the equipment meets quality, food safety and hygiene requirements. It is company policy that all new plant and equipment meets relevant legislation and also in the European Union bears a CE marking.

The Engineering Manager ensures that all plant and equipment is supplied with a Certificate of Conformity certifying it is fit for purpose (suitable for use in a Food Environment). The Engineering Manager is responsible for the installation and commissioning of new plant and equipment in a hygienic and controlled manner such that it does not represent a risk to product. The Technical Manager is responsible for approving the release of new Plant and Equipment for shelf life trials and other production.

The Development team on a regular production proving trials and confirms acceptable quality, shelf life and transit stability of the product. Correct operation of processing and packing equipment is confirmed. Shelf life is established, taking into account product formulation, packaging, factors of environment and subsequent storage conditions.

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
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AFC Product Design & Development

Introduction

Initial shelf life trials are documented protocols as per customer codes of practice for when not specified as per standard company that define conditions required during manufacture, storage, transport, distribution, use and handling to determine product shelf life. Trial results documented and retained and confirm compliance with the agreed microbiological, chemical and organoleptic or sensory analysis.

For long life products where shelf life trials prior to production are impractical accelerated shelf life tests are conducted and the QC Manager produces a documented justification for the assigned shelf life.

When cooling instructions are provided to ensure product safety, the instructions are fully validated by the lab's team to ensure that, when the product is cooked according to the instructions, it will be ready to eat product is sufficiently produced.

The Development team carry out design and development verifications and maintain a record of design and development verifications. At this stage, the Technical Manager also verifies that design requirements can be met.

Following completion of a new design of product or process the Technical team perform design and development updates to affirm continued compliance with the input requirements and maintain a record of these verifications.

The development team perform systematic design and development reviews throughout the design and development process and maintain a record of the reviews. The reviews are held prior to agreement for full production to confirm that the site can meet design inputs agreed with the customer. The need for FIDM and HACCP system updating is also addressed with the Food Safety team at this time. The approximate FIDM review is conducted by the Food Safety team taking into account verification and calibration data from the development trials.

The HACCP system is reviewed when there are significant changes such as new raw materials or new material supplier, new ingredients or recipe, process conditions or equipment and new products. Changes to the HACCP system are fully validated and documented.

After each design or redesign of the HACCP Plan the Food Safety Team update and amend as necessary all the information that was used prior to the Hazard Analysis including:

- Product Description
- Intended Use
- Raw Material
- Process Steps
- Control Measures

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AFC Product Design & Development

Introduction

This may result in changes to what has previously applied such as control measures may have been changed or deleted or their stringency changed. This could have an impact on control measure conditions and means that further amendments may be required. The Food Safety team review the changes to this information and if necessary amend the:

HACCP Plan
PRPs
Infrastructure and Maintenance Programs (MPs)

All changes are recorded by the Food Safety Team.

All new products and changes to product formulation, packaging or methods of processing are formally approved by the Technical Manager. This approval is passed before products are introduced into the factory environment. Following the HACCP system review and approval by the Technical Manager, the Operations Manager authorizes the process changes and a completed Process Change Approval form is held on file.

The Technical Manager and Operations Manager are responsible for ensuring that the site is capable of accommodating the new process or product and maintaining acceptable levels of quality and food safety.

If new specification will be created, defining raw materials, packaging and suppliers, HACCP Plan, PRPs, in process and End-use product specifications and artwork, labelling and coding details.

The New Product Development Manager confirms that the packaging complies with specifications, relevant food safety legislation and is fit for purpose. For all product claims the New Product Development Manager validates the product formulation and product process are capable of meeting the product claim prior to launch and verifies that ingredients and allergen labelling is correct based on the product recipe.

Finished product specifications are agreed and authorized by the Development Manager and Technical Manager.

The New Product Development Manager manages design and development changes by:

- Identifying changes in design and development
- Recording changes in design and development
- Reviewing changes in design and development
- Verifying changes in design and development
- Validating changes in design and development
- Approving changes in design and development before they are implemented

Document Reference: F3-Product Design & Development
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Author led by: General Manager

AFC Product Design & Development

Introduction

The Technical Manager is responsible for ensuring that product labelling complies with legal requirements and contains information to enable the safe handling, display, storage and preparation of the product within the food supply chain or by the customer. The Technical Manager verifies that the labelling information is correct including:

- Ingredients and allergen labelling based on the product recipe and ingredient specifications
- nutritional content
- storage
- preparation and serving instructions
- customer information-meets legislation for the destination country

Labelling information is reviewed whenever there are changes to:

- the product recipe
- raw materials/supplier of raw materials
- legislation
- country of origin

References

Supplementary Product Development Documents

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
Owned by: Technical Manager
Author led by: General Manager

AFC Product Design & Development

Appendix 1: SRP Overview

STAGE 1: Product Brief
Product Brief supplied to RPD
Critical path-generation
STAGE 2: Kitchen work stage
Specification sent for New Ingredients
Primary Specification Checked and signed off
Raw Material excluded by Technical against the Spec
Initial Product costing done
All recipes documented
STAGE 3: Approval of Kitchen Product
Product Approved by Customer
Reference sample saved
Full raw material specification & supplier questionnaire or audit, checked, completed and to be signed by both parties.
Asset schedule updated
Handover to process development
STAGE 4: Factory trials
Sign off/ approval of any new equipment
Potentially release ingredients for factory trial

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
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AFC Product Design & Development

Final approval form/ report completed
Final Analysis
Statistical Analysis
Set Points Established
Process capability study completed
Initial Standards Toleration set
Scale up to production level
Initial Packaging Trial undertaken
Transit trials to store
Hygiene completed
STAGE 5: Approval of Factory Product & Recipe Analysis
Customer panel if required
Product Approved by Customer
Reference sample saved
Samples sent for Microbial
Microbial Results received
HACCP drawn up & verified
Verification of the cooking instructions
Samples sent for more shelf life from 3 factory trial runs

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
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Initial shelf life results forwarded to Technical Manager
Organoleptic shelf life started from 3 factory trial runs
Micro & Organoleptic shelf life Results forwarded to Technical Manager
Customer Taster, Cooling Instructions / recipe suggestions, raw list form submitted to the Technical Manager
Product specification forwarded to legal
Any Special Analysis Samples sent for Tests
Special Analysis Results received
Process control documentation quality systems updated
STAGE Complete & Authority to Move to Next Stage
New Product Development Manager
STAGE 6: Artwork Process
Customer Spec updated to incorporate any legal / TTM comments
Artwork evaluated & checked - please refer to the Artwork sign off checklist
New packaging circulated for approval
Clear label given used and approved
STAGE Complete & Authority to Move to Next Stage
New Product Development Manager
STAGE 7: Pre-production trials
Handover to Production

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
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AFC Product Design & Development

Training of Operators
Pre-launch meeting
Agreeing an allocation and ordering raw materials
Build delivery of raw material to be approved against reference sample
Pre-production Trial
Any new packaging trial
Taster Panel/ trial run
Agree product standards including photos where necessary
Check to see if customer systems are set up to receive the product
STAGE Complete & Authority to Move to Next Stage
New Product Development Manager
STAGE 8: Product Launch
Confirmation of the sign-off date
Product Launch
Specifications to be signed off by supplier & Customer
STAGE 9: Post Launch
Taster Panel/ item 3 production runs
Post-launch recipe meeting
Store verification & audits to ensure store status Action by the New Product Development Manager

Document Reference: F3-Product Design & Development
Revision 9: 2nd May 2024
Owned by: Technical Manager
Author led by: General Manager

Page 1 of 9 1973 Words

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Sample Finished Product and Raw Material Specifications

AFC Whole Milk Summer Fruit Bio Yoghurt 100g

Manufacturing Site	
Contact Details	
Telephone	
Fax	

Product Description	
A whole milk stirred fruited bio yoghurt with a creamy mixed berry flavor	
Organoleptic	
Appearance	Mauve in color, smooth, shiny yoghurt with blackberry & raspberry pieces
Aroma	A fresh fruity mixed berry aroma
Flavor	Sweet creamy fresh mixed berry flavor with a slight lactic note

Ingredients	
Potable Water, Whole Milk Powder, Sugar, Blackberries (3.75%), Raspberries (3.75%) Summer Fruit Syrup [(water, glucose syrup, thickeners (modified starch, carrageenan), black carrot juice concentrate, <u>woodberry</u> flavor, sodium citrate, potassium sorbate)], Milk Protein, Skim Milk Powder, Stabilizer (acetylated <u>distarch adipate</u> , gelatin, guar gum, <u>pectins</u>), Yoghurt Culture, Bifidobacterium, Lactobacillus acidophilus	
Allergens	
Milk	

Processing, Manufacturing + Packing Parameters	
1. Mix and standardize the base	Butterfat = 3.5 – 3.7% Total Solids = 20.0 – 21.0
2. Homogenize:	200 Bar
3. Pasteurize at:	90°C - 95°C for 300 Sec

Document Reference Whole Milk Summer Fruit Bio Yoghurt 100g Specification FPSPEC 001
Revision 0 1st May 2024
Owned by: Technical Manager
Authorized by: General Manager

AFC Whole Milk Summer Fruit Bio Yoghurt 100g

4. Cool to give an incubation temperature of:	Short Set = 42°C ± 2°C
5. Incubate	pH = 4.3 ± 0.1
6. Filter	<1mm
7. Cool	10 – 20 °C
8. Dose Summer Fruit Conserve	15% +/- 1%
9. Fill	10 – 20 °C
10. Coding	D.O.P + 21 Days
11. Cool the yogurt	1°C – 5°C
12. QA Release – Start of Run & End each Pallet	1°C – 5°C
	pH < 4.5 Enter < 10/g

Weight Control					
Packed as a 4 pack on an XYZ filling machine but individually bar coded and snap into 4 pots					
Declared Weight (g)	Target Average Weight (g)	Lower weight limit (g)	Upper weight limit (g)	Approximate Weight of Packaging (g)	Frequency
100	100	95	105	6	Start and end of run plus half hourly

Coding			
Use By	DOP + 21	Minimum Life for dispatch	DOP + 7

Code	Item	Supplier
F 001	Fruit Pulp Summer Fruits	
P 001	Lid Summer Fruits (Adult Yoghurt)	
P 002	Base Web for Fruit Yoghurt 100	

Document Reference Whole Milk Summer Fruit Bio Yoghurt 100g Specification FPSPEC 001
Revision 0 1st May 2024
Owned by: Technical Manager
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Page 1 of 3 384 Words English (US)
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AFC Cocoa Powder Specification

Trade name: Cocoa Powder
Description: Fat reduced cocoa powder, alkalized, fat content 10-12%. Free from GMO

Origin: Cocoa Beans

Criteria for Acceptance of Material

For acceptance, a delivery must comply with all the requirements given in this specification on receipt.

Legal requirements for Edible Materials: The specified material, its packaging and all the ingredients used in the preparation, storage and distribution of this material must conform in every respect with the requirements of the legislation in force in the European Union and relevant national legislation.

Packaging, Transport, Storage	
General Packaging for Edible Materials	
The storage conditions defined below are valid for unopened / sealed packaging only	
Packaging must not be assembled using either metal rivets, metal staples, metal wire or metal thread	
Palletized deliveries must be stacked neatly with no overhang. Pallets must be stable and protected with an impermeable wrap covering the entire pallet load.	
The material must be transported in clean, hygienic, physically sound conditions. Upon receipt at the receiving company all packaging must be intact and undamaged.	
Packaging material : Plastic bag of 25 kg	

Storage/Distribution Conditions	
Storage Temperature	15 - 20 °C
Relative Humidity	50% RH
Shelf Life Total	24 month(s)
Shelf Life on Delivery	12 month(s)
Storage in the original and hermetically closed packaging screened from the air and the light. To be stored in a cool and dried area.	

Document Reference Cocoa Powder Specification RMS 003
Revision 0 1st May 2024
Owned by: Technical Manager
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AFC Cocoa Powder Specification

Coding and Labelling Requirements	
Pallets and packets delivered to the receiving company must have the following information:	
Name of the product	
Supplier name and manufacturing plant	
Date of production and the batch number	
Total shelf life and unit quantity	

Sensory Examination	
Appearance / Color	Compares favorably with previous sample. Dark brown powder
Odor	Compares favorably with previous sample. Typical of cocoa
Taste	Compares favorably with previous sample. Typical of cocoa
Texture / Consistency	Compares favorably with previous sample. Powder. Shell content: max. 1,75% Fineness: 99.7 ± 0,2% (wet, pass through 200 mesh – 0,074mmø sieve)

Chemical Physical Analysis				
Property	Target	Min	Max	UOM
pH	7	6.5	8	
Water	5			%
Ash	11			%
Carbohydrate	50.9			%
Protein	20.5			%
Fat	11	10	12	%
Density	0.37			g/cm3

Document Reference Cocoa Powder Specification RMS 003
Revision 0 1st May 2024
Owned by: Technical Manager
Authorized by: General Manager

Page 1 of 3 402 Words English (US)
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Editable Product Development Plan Template



Product Development Plan

Stage	Responsibility	Date	Signed
STAGE 1: Product Brief			
- Product Brief supplied to NPD			
- Critical path generation			
STAGE Complete & Authority to Move to Next Stage	<u>Yes/No</u>	<u>Date</u>	<u>Signed</u>
New Product Development Manager			

Stage 2	Responsibility	Date	Signed
STAGE 2: Kitchen work stage			
- Specification sent for New Ingredients			
- Preliminary Specification Checked and signed off			
- Raw Material evaluated by Technical against the Spec			
- Initial Product costing done			

Document Reference Product Development Plan NPD 001
 Revision 0_1st May 2024
 Owned by: Product Development Manager
 Authorized by: General Manager



Product Development Plan

- All recipes documented			
STAGE Complete & Authority to Move to Next Stage	<u>Yes/No</u>	<u>Date</u>	<u>Signed</u>
New Product Development Manager			



Stage	Responsibility	Date	Signed
STAGE 3: Approval of Kitchen Product			
- Product Approval by Customer			
- Reference sample saved			
- Full raw material Specification & Supplier Questionnaire or audit, checked, completed and to be signed by both parties			
- Audit Schedule updated			
- Handover to process development			
STAGE Complete & Authority to Move to Next Stage	<u>Yes/No</u>	<u>Date</u>	<u>Signed</u>
New Product Development Manager			

Document Reference Product Development Plan NPD 001
 Revision 0_1st May 2024
 Owned by: Product Development Manager
 Authorized by: General Manager



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