

PRP	Control infrastructure/ activities	Monitoring	Record keeping required (yes/no)	Corrective action
				frequency and method of disinfection.
PRP 3: Pest control: focus on prevention	Pest control activities.	Weekly check	No	Revise and/or renew pest control activities.
PRP 4: technical maintenance and calibration	Maintain all equipment. Calibrate measuring devices (e.g. thermometer, balance, etc.).	On-going monitoring of equipment. Periodic (daily/weekly) calibration status with records.	No Yes, status of calibration	Repair or replace equipment as necessary. Review maintenance and calibration programme.
PRP 5: Physical and chemical contamination from production environment	Ensure all materials are stored correctly. Ensure all surfaces are properly rinsed after disinfection.	Visual check during processing. Monthly check based on checklist of infrastructure (hygiene and condition).	Yes, but only when there is remedial work required.	Review storage, cleaning and disinfection procedures, etc.
PRP 6: Allergens	Ensure the absence of allergens in raw materials Keep an up-to-date inventory of potential allergens including sources (e.g. raw material, cross-contamination, etc.) Potential sources of cross-contamination identified and controlled.	Raw material specifications from to suppliers. Activities to prevent cross-contamination are implemented on a continuous basis	No	Stop using potentially 'contaminated' raw materials. Review suppliers/supplier requirements. Revise acceptance criteria. Review and correct activities designed to prevent cross-contamination.
PRP 7: Waste management	Complete separation of waste from raw materials or foods. Specific requirements of legislation are in place in case of waste of foods of animal origin (animal by-products).	Routine visual check to ensure the food business's policy on waste management is being fully complied with.	No	Remove waste directly Review and revise current waste management activities. Retrain staff as required.

Table 2:

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
Receiving	Y	Y	Y	Y	<p>Failure to ensure the microbiological quality of incoming raw materials</p> <p>Presence of chemical or physical hazards or allergens in incoming raw materials</p>	<p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 6: Allergens</p> <p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 12: Working methodology</p>
Refrigerated storage	Y	Y	Y	Y	<p>Microbial growth due to failure to chill properly</p> <p>Cross-contamination due to a failure to separate raw from cooked/RTE products</p> <p>Contamination with chemical or physical hazards from the environment, personnel, etc.</p> <p>Contamination with allergens</p>	<p>PRP 4: Technical maintenance and calibration</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 6: Allergens</p>
Non-refrigerated (ambient) storage	Y	Y	Y	Y	<p>Microbial growth due to failure to store in dry conditions</p> <p>Contamination with chemical or physical hazards from the environment, personnel, etc.</p> <p>Contamination with allergens</p>	<p>PRP 1: Infrastructure (building and equipment)</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 1: Infrastructure (building and equipment)</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 6: Allergens</p>
Cutting and portioning	Y	Y	Y	N	Contamination with biological, chemical or physical hazards due	<p>PRP 2: Cleaning and disinfection</p> <p>PRP 4: Technical maintenance and calibration</p>

					to a failure to clean and disinfect equipment properly, lack of personal hygiene, knives and equipment	PRP 5: Physical and chemical contamination from production environment PRP 9: Personnel (hygiene, health status)
Mincing	Y	Y	N	Y	Cross-contamination with biological hazards due to a failure to clean and disinfect equipment properly or lack of personal hygiene Contamination with chemical hazards Contamination with allergens	PRP 2: Cleaning and disinfection PRP 9: Personnel (hygiene, health status) PRP 2: Cleaning and disinfection PRP 6 : Allergens
Processing	Y	Y	Y	Y	Contamination with biological, chemical or physical hazards due to a failure to clean and disinfect equipment properly, lack of personal hygiene, environment, higher concentration of additives than allowed Contamination with allergens	PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 9: Personnel (hygiene, health status) PRP 12 : Working methodology PRP 6 : Allergens
Display in counter	Y	Y	N	Y	Microbial growth due to failure to chill properly Cross-contamination with biological hazards due to a failure to separate raw from cooked/RTE products Contamination with chemical hazards	PRP 4: Technical maintenance and calibration PRP 11: Temperature control of storage environment PRP 12 : Working methodology PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment

					Contamination with allergens	PRP 6 : Allergens
Refrigerated storage	Y	Y	Y	Y	Microbial growth due to failure to chill properly Cross-contamination due to a failure to separate raw from cooked/RTE products Contamination with chemical or physical hazards from the environment, personnel, etc. Contamination with allergens	PRP 4: Technical maintenance and calibration PRP 11: Temperature control of storage environment PRP 12: Working methodology PRP 2: Cleaning and disinfection PRP 3: Pest control: focus on prevention PRP 5: Physical and chemical contamination from production environment PRP 6: Allergens
Slicing, serving and packing	Y	Y	Y	Y	Contamination with biological, chemical or physical hazards or allergens due to failure in working methodology and lack of personal hygiene. Failure to inform the consumer of potential allergens and storage mode, time etc.	PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 6: Allergens PRP 9: Personnel (hygiene, health status) PRP 12: Working methodology PRP 6 : Allergens PRP 13: Product information and consumer awareness

(a): =biological, C=chemical, P=physical, A=allergen

Table 4: SFR-FSMS for the bakery shop

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
Receiving	Y	Y	Y	Y	<p>Failure to ensure the microbiological quality of incoming raw materials</p> <p>Presence of chemical or physical hazards or allergens in incoming raw materials</p>	<p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 6: Allergens</p> <p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 12: Working methodology</p>
Non-refrigerated (ambient) storage	Y	Y	Y	Y	<p>Microbial growth due to failure to store in dry conditions</p> <p>Contamination with chemical or physical hazards from the environment, personnel, etc.</p> <p>Contamination with allergens</p>	<p>PRP 1: Infrastructure (building and equipment)</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 1: Infrastructure (building and equipment)</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 6: Allergens</p>
Refrigerated storage	Y	Y	Y	Y	<p>Microbial growth due to failure to chill properly</p> <p>Cross-contamination due to a failure to separate raw from cooked/RTE products</p> <p>Contamination with chemical or physical hazards from the environment, personnel, etc.</p> <p>Contamination with allergens</p>	<p>PRP 4: Technical maintenance and calibration</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 6: Allergens</p>
Weighing,	N	Y	Y	Y	Contamination with chemical or	PRP 4: Technical maintenance and calibration

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
mixing and kneading					physical hazards and allergens from the environment, personnel, higher levels of additives than allowed, etc.	PRP 5: Physical and chemical contamination from the production environment PRP 6: Allergens PRP 12: Working methodology
Proofing	N	Y	Y	Y	Contamination with chemical or physical hazards from the environment, personnel, etc. Contamination with allergens	PRP 5: Physical and chemical contamination from the production environment PRP 12: Working methodology PRP 6: Allergens
Baking	Y	Y	N	N	Failure to achieve sufficiently high temperatures to ensure that microbial hazards are killed Over-cooking resulting in the formation of acrylamide.	PRP 4: Technical maintenance and calibration PRP 12: Working methodology PRP 12: Working methodology
Cooling	Y	Y	N	N	Failure to chill quickly Contamination with chemical hazards	PRP 4: Technical maintenance and calibration PRP 12: Working methodology PRP 5: Physical and chemical contamination from the production environment
Display	Y	Y	Y	Y	Contamination with biological, chemical or physical hazards or allergens from the environment, personnel, etc.	PRP 1: Infrastructure (building and equipment) PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 6: Allergens PRP 7: Waste management
Serving, cutting and packing	Y	Y	Y	Y	Contamination with biological, chemical or physical hazards or allergens due to a failure to clean and disinfect equipment properly. Failure to inform the consumer of	PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 6: Allergens PRP 9: Personnel (hygiene, health status) PRP 12: Working methodology PRP 6: Allergens

Table 5: SFR-FSMS for the fish shop

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
Receiving	Y	Y	Y	Y	<p>Failure to ensure the microbiological quality of incoming raw materials</p> <p>Presence of chemical or physical hazards or allergens in incoming raw materials</p>	<p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 6: Allergens</p> <p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 12: Working methodology</p>
Ice making	Y	Y	Y	N	<p>Failure to ensure the quality of the water used</p> <p>Failure to maintain, clean and disinfect equipment</p>	<p>PRP 5: Physical and chemical contamination from the production environment</p> <p>PRP 8: Water and air control</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 4: Technical maintenance and calibration</p>
Storage on ice	Y	Y	N	N	<p>Microbial growth due to failure to chill properly</p> <p>Failure to prevent microbial growth and the production of histidine (time restriction)</p> <p>Contamination with chemical hazards</p>	<p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 12: Working methodology</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 5: Physical and chemical contamination from the production environment</p> <p>PRP 8: Water and air control</p>
Refrigerated storage	Y	Y	Y	Y	<p>Microbial growth due to failure to chill properly</p> <p>Contamination with biological, chemical or physical hazards from the environment, personnel, etc.</p>	<p>PRP 4: Technical maintenance and calibration</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 12: Working methodology</p>

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
					Contamination with allergens Failure to prevent microbial growth and the production of histidine (time restriction)	PRP 7: Waste management PRP 6: Allergens PRP 11: Temperature control of storage environment PRP 12: Working methodology
Serving and packing	Y	Y	Y	Y	Contamination with biological, chemical or physical hazards or allergens from the environment, personnel, etc. Failure to inform the consumer of potential allergens and storage mode, time etc.	PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 6: Allergens PRP 9: Personnel (hygiene, health status) PRP 12: Working methodology PRP 6: Allergens PRP 13: Product information and consumer awareness

(a): B=biological, C=chemical, P=physical, A=allergen

Table 6: SFR-FSMS for the ice cream shop

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
Receiving	Y	Y	Y	Y	<p>Failure to ensure the microbiological quality of incoming raw materials</p> <p>Presence of chemical or physical hazards or allergens in incoming raw materials</p>	<p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 6: Allergens</p> <p>PRP 10: Raw materials (supplier selection, specifications)</p> <p>PRP 12: Working methodology</p>
Ambient Storage	Y	Y	Y	Y	<p>Microbial growth due to failure to store in dry conditions</p> <p>Contamination with chemical or physical hazards from the environment, personnel, etc.</p> <p>Contamination with allergens</p>	<p>PRP 1: Infrastructure (building and equipment)</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 1: Infrastructure (building and equipment)</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 6: Allergens</p>
Refrigerated storage	Y	Y	Y	Y	<p>Microbial growth due to failure to chill properly</p> <p>Cross-contamination due to a failure to separate raw from cooked/RTE products</p> <p>Contamination with chemical or physical hazards from the environment, personnel, etc.</p> <p>Contamination with allergens</p>	<p>PRP 4: Technical maintenance and calibration</p> <p>PRP 11: Temperature control of storage environment</p> <p>PRP 12: Working methodology</p> <p>PRP 2: Cleaning and disinfection</p> <p>PRP 3: Pest control: focus on prevention</p> <p>PRP 5: Physical and chemical contamination from production environment</p> <p>PRP 6: Allergens</p>
Frozen storage	Y	Y	Y	N	<p>Microbial growth due to failure in freezing temperature</p>	<p>PRP 4: Technical maintenance and calibration</p> <p>PRP 11: Temperature control of storage environment</p>

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
					Contamination with chemical or physical hazards from the environment, etc.	PRP 5: Physical and chemical contamination from production environment
Weighing and mixing	Y	Y	Y	Y	Microbial growth due to long period of weighing and mixing Contamination with chemical or physical hazards and allergens from the environment, personnel, etc.	PRP 12: Working methodology PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 6 : Allergens PRP 9: Personnel (hygiene, health status) PRP 12: Working methodology
Cooking	Y	Y	N	N	Failure to achieve sufficiently high temperatures Contamination with chemical hazards	PRP 4: Technical maintenance and calibration PRP 12: Working methodology PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment
Cooling	Y	Y	N	N	Failure to chill quickly Contamination with chemical hazards	PRP 4: Technical maintenance and calibration PRP 12: Working methodology PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment
Ageing	Y	N	N	N	Microbial growth due to failure to chill properly	PRP 4: technical maintenance and calibration PRP 11: Temperature control of storage environment
Air incorporation /whipping	Y	Y	Y	N	Microbial growth due to failure to chill properly Contamination with chemical or physical hazards from the environment, personnel, etc.	PRP 4: Technical maintenance and calibration PRP 11: Temperature control of storage environment PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 8: Air and water control

Stage	Hazard identification ^(a)				Activities contributing to increased/decreased occurrence of the hazard	Control activities
	B	C	P	A		
						PRP 12: Working methodology
Packaging	Y	Y	Y	N	Contamination with microbial, chemical or physical hazards from the packaging materials, environment, personnel, etc.	PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 9 : Personnel (hygiene, health status) PRP 12: Working methodology
Hardening	Y	Y	N	N	Microbial growth due to failure in freezing temperature Contamination with chemical hazards	PRP 4: Technical maintenance and calibration PRP 11: Temperature control of storage environment PRP 5: Physical and chemical contamination from the production environment
Frozen storage	Y	Y	N	N	Microbial growth due to failure in freezing temperature Contamination with chemical hazards	PRP 4: Technical maintenance and calibration PRP 11: Temperature control of storage environment PRP 5: Physical and chemical contamination from the production environment
Portioning and serving	Y	Y	Y	Y	Contamination with biological, chemical or physical hazards or allergens due to a failure to clean and disinfect equipment properly. Failure to inform the consumer of potential allergens and storage mode, time etc.	PRP 2: Cleaning and disinfection PRP 5: Physical and chemical contamination from the production environment PRP 6: Allergens PRP 9: Personnel (hygiene, health status) PRP 12: Working methodology PRP 6: Allergens PRP 13: Product information and consumer awareness

(a): B=biological, C=chemical, P=physical, A=allergen