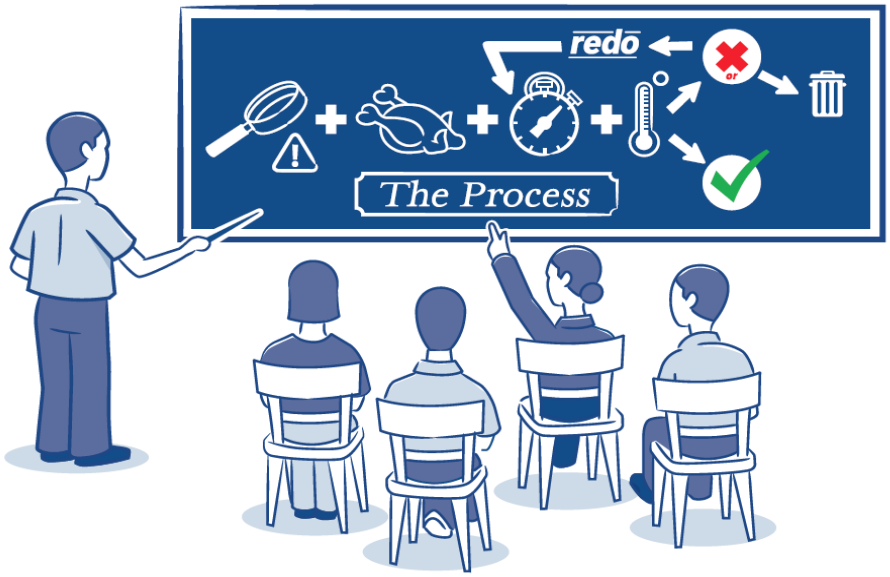
Sample Food Safety Plan

MEETS BC REGULATORY REQUIREMENTS

PEAR JUICE



BRITISH COLUMBIA | Ministry of Health

Product Description

Product Description	
1. What is your product name and weight/volume?	Pear juice (200 mL)
2. What type of product is it (e.g., raw, ready-to-eat, ready-to-cook, or ready for further processing, etc.)?	Ready to drink
3. What are your product's important food safety characteristics (e.g., acidity, A_w, salinity, etc.)?	pH: 4.0 - 4.5
4. What allergens does your product contain?	Sulphite
5. What restricted ingredients (preservatives, additives, etc.) does your product contain, and in what amounts (e.g., grams)?	None
6. What are your food processing steps (e.g., cooking, cooling, pasteurization, etc.)?	Receiving incoming materials, ambient storage, cool refrigerator storage, packaging material storage in a separate location, dumping, washing, inspection, crushing, weighing, mixing, extraction / juicing, filtration, HTST pasteurization, cooling, filtration, metal detecting, aseptic filling, sealing, straw attaching, date coding, case packaging and labeling, palletizing, room temperature storage, shipping.
7. How do you package your product (e.g., vacuum, modified atmosphere, etc.) and what packaging materials do you use?	Pear juice is packaged in sterile tetra pak (plastic-coated paper carton with aluminum inner lining) carton. Packaged cartons are packed in corrugated boxes.
8. How do you store your product (e.g., keep refrigerated, keep frozen, keep dry) in your establishment and when you ship your product?	Room temperature storage. Pear juice packages are shipped at ambient temperatures in a clean truck.
9. What is the shelf-life of your product under proper storage conditions?	Pear juice shelf life is one year at room temperature
10. How is the best before date to be noted on your product? (When product shelf life is more than 3 month, lot code or manufacturing date is to be printed on product label.)	The best before date is printed on the tetra pak carton as YY MM DD. Example: 15 JA 04 (January 04, 2015)

Product Description	
11. Who will consume your product (e.g., the general public, the elderly, the immunocompromised, infants)?	Ready to drink for the general population. **Note:** Pear juice is not suitable for people with sulphite allergies.
12. How might the consumer mishandle your product, and what safety measures will prevent this?	Products that have passed the best before date can cause illness and can have quality defects – the best before date is printed on the tetra pak carton.
13. Where will the product be sold?	Food service, retail, wholesale and distributor.
14. What information is on your product label?	Individual juice carton contains information such as product name, weight, ingredients listing with allergen, nutritional table, storage and handling instructions, best before date, manufacturing company name, address and contact information. Corrugated box label contains information such as product name, best before date, quantity, storage and handling instructions, manufacturing company name, address and contact information.

Incoming Materials

Ingredients	
Pears	Ascorbic acid
Lemon juice	Water
Powdered sugar	
Food contact processing aid materials	
Water	
Food contact packaging materials	
Tetra pak containers (plastic-coated paper carton with aluminium inner lining)	Straws (individually packaged in plastic bags)
Tetra pak container caps	
Non-food contact packaging materials	
Corrugated boxes	Tape
Glue	Shrink wrap
Plain labels	Wooden pallets
Ink	
Chemicals (hand washing, sanitation and maintenance)	
Hand soap	Sanitizer
Hand sanitizer	Lubricant
Degreaser	

Food Safety Plan Table: Meets BC Regulatory Requirements

1. Identifying Hazards (Regulatory Requirement*)	2. Identifying Critical Control Points (Regulatory Requirement*)	3 Establishing Critical Limits (Regulatory Requirement*)	4 Establishing Monitoring Procedures (Regulatory Requirement*)	5 Establishing Corrective Actions (Regulatory Requirement*)	6 Establishing Verification Procedures (Pending Regulatory Requirement)	7 Keeping Records (Pending Regulatory Requirement)
Biological hazard: Pathogen growth due to improper time / temperature application during pasteurization (e.g. *Salmonella* spp.*, Yersinia spp., Listeria monocytogenes, Escherichia coli O157:H7, Shigella spp., Clostridium botulinum, Cryptosporium parvum*) ***Acronyms:*** *CIP:* Cleaning in Place. *HTST:* High temperature short time. *STLR:* Safety Thermal Limit Recorder. ***Definitions:*** *Cut-in temperature:* the	CCP # 1 High Temperature Short Time (HTST) pasteurization	1) Pasteurization temperature must be 90°C (194°F) for a minimum of 10 seconds. Cut-in temperature must be 90°C (194°F) for 10 seconds and cut-out temperature must be at least 89.5°C (193.1°F). 2) The recording thermometer temperature must not read higher than the indicating thermometer temperature. 3) The pressure on the pasteurized juice side of the plates must be 13.79 kPa (2 psi) higher than the pressure on the raw juice side of the plates.	**Monitoring frequency:** 1) Cut-in and cut-out temperatures measured by the STLR at start-up, when a new set point is selected, when the system is shut down and then re-started, and after full CIP or mini CIP washes. If the production run is longer than 12 hours, then a new "HTST Recording Chart" must be used every 12 hours. When the chart is replaced, the cut-in and cut-out temperatures do not need to be checked. 2) The indicating thermometer temperature must be checked at each cut-in and cut-out temperature and once during pasteurization 3) Pressure on each side of the plates (i.e., the pasteurized juice side and the raw juice side) must be checked at start-up, during forward flow, during divert flow and at shutdown.	**A) If the required cut-in and cut-out temperatures cannot be reached;** **B) When the indicating thermometer temperature indicates a temperature lower than the cut-in temperature requirement and the flow diversion valve has not automatically moved to divert flow OR** **When the indicating thermometer temperature indicates a temperature higher than the cut-out temperature requirement and the system has not automatically moved to forward flow; or** **C) When the pressure on the pasteurized juice side of the plates is lower than the pressure on the raw juice side of the plates** For above listed non-conformances	1) Review the "HTST Recording Chart" to ensure that it has been properly completed. 2) Once per week, ensure that the monitoring of the pasteurization follows the written monitoring procedures. 3) If non-conformance is found during the verification procedure, investigate the cause of the non-conformance and take necessary corrective actions to prevent reoccurrence. 4) Record all observations (e.g., cut-in and cut-out temperatures, indicating thermometer temperatures, whether the pasteurizer is operating effectively, non-conformances, and corrective actions) on the "HTST Recording	HTST Recording Chart Corrective Action Record

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temperature set within the STLR at which the STLR sends a signal to the flow diversion device, allowing it to go into and remain in the forward flow position. *Cut-out temperature:* the temperature set within the STLR at which the STLR signal is turned off, causing the flow diversion device to remain in the divert flow position. *Recording thermometer:* the thermometer that automatically records the temperature of the product on a chart that also indicates the time of day, thus providing a record of the process and processing time. *Indicating thermometer:* the thermometer that provides the official processing temperature of the product.			**Monitoring procedure:** **A) Cut-in and cut-out temperatures** 1) At the start of production, ensure that the preprogrammed cut-in and cut-out temperatures in the STLR are set for the correct product or that a set point has been selected. 2) Check the cut-in temperature on the indicating thermometer at the moment the flow diversion valve begins to move to the forward flow position. 3) Check the cut-out temperature on the indicating thermometer at the moment the flow diversion valve begins to move to the divert flow position. 4) Compare the actual recorded cut-in and cut-out temperatures against the preprogrammed temperatures set in the STLR for the particular product or against the set point selected.	(A, B & C): 1) The operator must immediately stop the line and place the affected products on hold. 2) The products put on hold must be pasteurized again to meet the critical limit. If the critical limit cannot be met, the product must be destroyed. 3) Investigate the cause of the non-conformance and take necessary corrective actions to prevent reoccurrence. 4) Record all non-conformances and corrective actions taken on the "Corrective Action Record," including the date, the time, and initials.	Chart," including the date, the time, and initials.	

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			B) Indicating thermometer temperature 1) Ensure that the indicating thermometer temperature meets the critical limits for the type of product being processed or the set point selected at each cut-in and cut-out, and at least once during pasteurization. 2) Ensure that the recording thermometer temperature (in the STLR) does not read higher than the indicating thermometer temperature. **C) Pressure on each side of the plates (i.e., the pasteurized juice side and the raw juice side)** 1) Check the pressure levels on the pasteurized and raw juice sides of the plates at the start of the pasteurization process, during forward flow, during divert flow, and at shutdown. For above listed monitoring procedure (A, B			

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			& C) Record temperatures (cut-in and cut-out), the time that the flow diversion valve begins to move to the forward position and divert flow position, the indicating thermometer temperature, and the pressure reading on the "HTST Recording Chart" including the date, the time, and initials.			
Physical hazard: Presence of hazardous extraneous metallic material in the finished product due to the failure of the metal detector to detect metal and reject the product when metal is detected.	CCP # 2 Metal detecting	Metal detector must detect 3.0 mm ferrous, 3.0 mm non-ferrous and 3.5 mm stainless steel test samples when the test samples are passed through the detector with the product. The metal detector must reject the product.	1. Test the metal detector at the start, every hour during packaging, and at the end of each packaging run. 2. Test the metal detector by passing a sample piece of metal through the detector to ensure that it is operating effectively and able to detect metal present in the product. 3. Check metal samples of 3.0 mm ferrous, 3.0 mm non-ferrous and 3.5 mm stainless steel, one at a time. Each check must include all three sample tests.	**A. When the metal detector fails to detect a metal test sample** 1. Immediately stop the line and place all products processed since the last successful check on hold. 2. All products processed while the metal detector was not functional must be held until they can be passed through a functional metal detector. **B. When a product is rejected by the metal detector** 1. Inspect the product for the metal	1. At the end of each production day, review the "Daily Metal Detector Check Record" to ensure that it has been properly completed. 2. Once per week, ensure that the monitoring of the metal detector follows the written monitoring procedure. 3. If non-conformance is found during the verification procedure, investigate the cause of the non-conformance	Daily Metal Detector Check Record

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			4. Insert the metal sample into the middle of the product and then pass the product package through the metal detector. A properly operating metal detector must detect the metal sample in the product. 5. Each time a metal contaminant is detected, the metal detector belt must retract and the rejected product must drop into the rejection box. 6. Record the metal sample check as acceptable (“✓”) (i.e., the metal detector is operating correctly) or not acceptable (“X”) (i.e., the metal detector is not operating correctly) on the “Daily Metal Detector Check Record,” including the date, the time, and initials.	piece. For above listed non-conformances (A & B) investigate the cause of the non-conformance and take necessary corrective actions to prevent reoccurrence. Record all non-conformances and corrective actions taken on the “Daily Metal Detector Check Record," including the date, the time, and initials.	and take necessary corrective actions to prevent reoccurrence. 4. Record all observations (e.g., whether or not the detector is operating effectively, non-conformances, and corrective actions taken) on the “Daily Metal Detector Check Record,” including the date, the time, and initials.	

HTST Recording Chart

Critical Control Point # 1 (Biological)

HTST Recording Chart must contain the information listed below:

1. Establishment name and registration number.

2. Date, shift and batch number.

3. Product type and amount of product processed.

4. Identification of cleaning in place (CIP) cleaning cycles, "mini-wash" cycles (if used).

5.Safety thermal limit recorder (STLR) identification when more than one is used.

6.Product cut-in and cut-out temperatures in STLR at start up, when new set point is selected, when the system is restarted after shutdown, after full CIP or "mini-wash" cycles.

7. Indicating thermometer temperature readings at cut-in, cut-out and at least once during processing. These readings must not be lower than the recording thermometer reading.

8. The times when the flow diversion device is in the forward and divert flow positions.

9. The pressure on the pasteurized and raw juice sides of the plates at the start, during forward and divert flows, and shutdown.

10. Signature or initials of the operator.

11. Daily and weekly verification with date, time and initials.

Corrective Action Record

Corrective action number:
Corrective action date:
Non-conformance listed by:
Describe non-conformance:
Immediate corrective action:
Root cause analysis:
Corrective action due date:
Corrective action :
Corrective action completed by:
Corrective action completion date:
Verification by:
Verification date:

Daily Metal Detector Check Record

Critical Control Point # 2 (Physical)

Critical Limits: Metal detector must detect 3.0 mm ferrous, 3.0 mm non-ferrous, and 3.5 mm stainless steel test samples when the test samples are passed through the detector with the product. The metal detector must reject the product.

Record the metal sample check as acceptable ("✓") (i.e., the metal detector is operating correctly) or not acceptable ("X") (i.e., the metal detector is not operating correctly)

Date	Time	Batch Number	Product Name	3.0 mm Ferrous	3.0 mm Non-ferrous	3.5 mm Stainless Steel	Initials
2015/11/02	12:00 (start)	1	Pear juice	✓	✓	✓	SM
	13:05	1	Pear juice	✓	✓	✓	SM
	14:07	1	Pear juice	✓	✓	✓	SM
	15:37	1	Pear juice	✓	✓	✓	SM
	16:04	1	Pear juice	✓	✓	✓	SM
	17:05	1	Pear juice	✓	✓	✓	SM
	17:44 (finish)	1	Pear juice	✓	✓	✓	SM
Record non-conformance and corrective actions here:							
Daily verification:		MN			Date: 2015/11/02		
Weekly verification:		ML			Date: 2015/11/09		