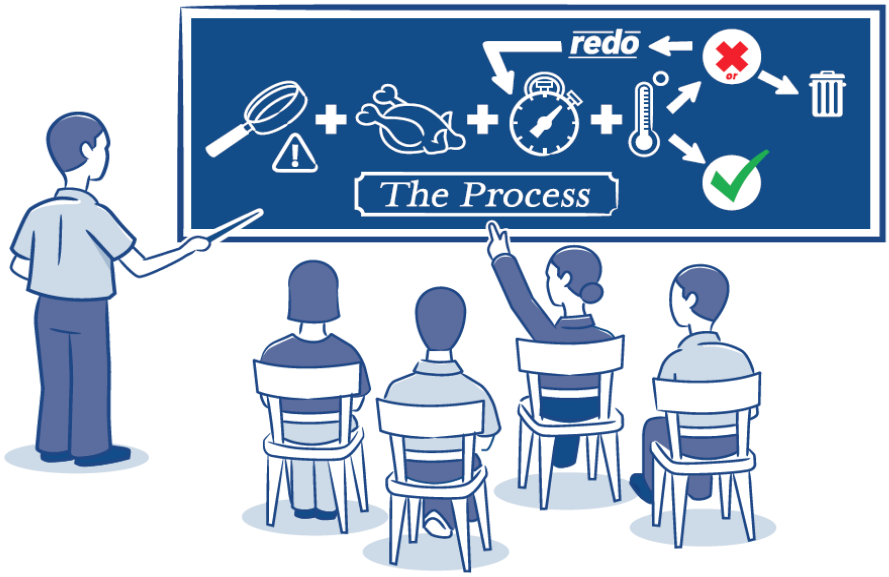
Sample Food Safety Plan

MEETS BC REGULATORY REQUIREMENTS

BEER



BRITISH COLUMBIA | Ministry of Health

Product Description

Product Description	
1. What is your product name and weight/volume?	Beer (350 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: 5.0 - 5.5 Alcohol: 4% - 5% per volume
4. What allergens does your product contain?	Wheat
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, grinding, water filtering, weighing, mashing and heating, lautering, cooking, filtering, cooling, fermentation, cooling, filtering, storage in tank, aging tank, final filtering, batch pasteurization, cooling, empty bottle inspection, bottle filling, bottle capping, bottle rinsing, bottle drying, filled bottle inspection, labeling and 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?	Beer is packaged in glass bottles. Glass bottles 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 in a dry and cool area. Beers are shipped at ambient temperatures in a clean truck.
9. What is the shelf-life of your product under proper storage conditions?	Beer shelf life is six months at room temperature. Refrigerate after opening and use within 48 hours.

Product Description	
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 production lot number is printed on the label.
11. Who will consume your product (e.g., the general public, the elderly, the immunocompromised, infants)?	Government regulations apply - ready to drink for the general population (19 years old or older).
12. How might the consumer mishandle your product, and what safety measures will prevent this?	Storage of the product at high temperatures or humidity can cause quality defects - storage and handling instructions are on the label.
13. Where will the product be sold?	Government sales provisions apply - licensed retailers and restaurants.
14. What information is on your product label?	Individual beer label contains information such as product name, volume, production lot number, alcohol content, manufacturing company name, address and contact information. Corrugated box label contains information such as product name, quantity, production lot number, alcohol content, manufacturing company name, address and contact information.

Incoming Materials

Ingredients	
Barley	Preservative (ascorbic acid)
Wheat	Stabilizing agent (calcium alginate)
Hops	Fining agent (gelatin)
Yeast	Water
Food contact processing aid materials	
Water	Oxygen gas
Compressed air	Air
Carbon dioxide gas	Hot water
Food contact packaging materials	
Sterile glass bottles and metal caps	Reused glass bottles
Non-food contact packaging materials	
Corrugated boxes	Tape
Pre-printed labels	Shrink wrap
Ink	Wooden pallets
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: Presence of yeast and lactic acid bacteria due to improper time / temperature applications, resulting in reduced shelf life of the product. ***Acronyms:*** *CIP:* Cleaning in Place. *STLR:* Safety Thermal Limit Recorder ***Definitions:*** *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. *Air space thermometer*: the	CCP # 1 Batch pasteurization	The product must be pasteurized at 65°C for a minimum of 30 minutes. 1) The holding period (30 minutes) must start after the indicating thermometer reads 65°C and the air space thermometer reads 68°C (or at least 3°C higher than the indicating thermometer temperature). 2) The indicating thermometer temperature must remain at 65°C and the air space thermometer temperature must remain at 68°C during the holding period.	For each batch being pasteurized: **A. Prior to starting pasteurization, ensure that** 1) The vat outlet valve is disconnected from the pasteurized line prior to filling the vat, and is not reconnected until the product is fully pasteurized. 2) The filling inlet line is disconnected before beginning the pasteurization process. 3) The new recording chart is in place in a STLR. 4) The indicating thermometer and the air space thermometer are properly situated in the pasteurizer unit. 5) Record the date, the product name, the amount of product, the vat number, the operator name, and the time (at filling and at empty vat) on the "Batch Pasteurizer	**A) If the vat outlet valve and/or filling inlet line are not disconnected prior to the start of pasteurization;** **B) When the indicating thermometer temperature check indicates a temperature lower than the recording thermometer temperature and the holding period has started OR the indicating thermometer temperature shows a temperature of lower than 65°C during the holding period; or** **C) When the air space thermometer temperature check indicates a temperature lower than 68°C and the holding period has started OR the air space thermometer temperature shows a temperature lower than 68°C during the holding period**	1) Review the "Batch Pasteurizer 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. These actions may include employee retraining, repair of the equipment, and holding the product etc. 4) Record all observations (e.g., indicating thermometer temperatures, air space thermometer temperatures, holding	Batch Pasteurizer Recording Chart Corrective Action Record

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thermometer that measures the temperature of the air space above the product. Throughout the pasteurization process, this air space must be at least 3°C (5°F) higher than the required minimum pasteurization temperature. This will ensure that the entire product, including the surface, receives the necessary heat treatment. *Indicating thermometer*: the thermometer that provides the official processing temperature of the product.			Recording Chart" and the operator's initials. **B. During the pasteurization process – indicating thermometer temperature reading** 1) Check the temperature on the indicating thermometer at the moment the beer reaches the pasteurization temperature (65°C). 2) Ensure that the holding period starts after the indicating thermometer temperature has reached the pasteurization temperature (65°C). 3) Ensure that the indicating thermometer temperature does not drop below the critical limit (65°C) throughout the holding period. 4) Ensure that the recording thermometer temperature on the STLR never reads higher than the indicating thermometer temperature.	For above listed non-conformances (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.	period, whether the equipment is operating effectively, non-conformances, and corrective actions) on the "Batch Pasteurizer Recording Chart," including the date, the time, and initials.	

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			5) Compare the indicating thermometer temperature reading, the holding start time, and the holding finish time against the recorded time and temperature in the STLR. 6) Record the indicating thermometer temperatures at the start and at the finish of the holding period and at least once during pasteurization on the "Batch Pasteurizer Recording Chart". The operator must also record the time, the date, and initials. **C. During the pasteurization process – air space thermometer temperature reading** 1) Ensure that the holding period starts after the air space thermometer temperature reads 68°C. 2) Ensure that the air space thermometer temperature remains at 68°C during pasteurization. 3) Ensure that the recording thermometer			

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			temperature on the STLR never reads higher than the air space thermometer temperature. 4) Record the air space thermometer temperature at the start and at the finish of the holding period and at least once during pasteurization on the "Batch Pasteurizer Recording Chart". The operator must also record the date, the time, and initials.			
Physical hazard: Presence of hazardous extraneous metallic and non-metallic materials in the finished product due to the failure of the empty glass bottle inspection (EGBI) analyzer to detect foreign materials and glass bottle defects in the empty glass bottle and/or to function as intended when these defects or foreign materials are detected.	CCP # 2 Empty glass bottle inspection (EGBI)	1) The EGBI analyzer must detect 3.0 mm metal, 3.5 mm wood, 3.5mm plastic, and 2.5 mm stone test samples when the test samples are passed through the EGBI analyzer with the bottled product. The EGBI analyzer must reject the bottle. 2) The EGBI analyzer must detect glass bottle defects test samples (blisters, cracks, body marks, colour, baffle marks)	1) Test the EGBI analyzer every hour during packaging and at the end of each packaging run. 2) Test the EGBI analyzer by passing a test samples (foreign materials, glass bottle defects) through it to ensure that the EGBI analyzer is operating effectively and able to detect test samples when they are present in the bottle. 3) Check foreign material samples (3.0 mm metal, 3.5 mm wood, 3.5 mm plastic, and 2.5 mm stone), one at a time. Each check	**When the EGBI analyzer fails to detect a test sample (foreign material or glass bottle defect)** 1) Immediately stop the line and place all products processed since the last successful check on hold. 2) All products processed while the EGBI analyzer was not functional must be held until they can be passed through a functional EGBI analyzer. 3) Investigate the cause of the non-conformance and take necessary	1) Review the "Daily EGBI Analyzer Check Record" to ensure that it has been properly completed. 2) Once per week, ensure that the monitoring of the EGBI analyzer follows the written monitoring procedure. 3) If non-conformance is found during the verification procedure, investigate the cause of the non-conformance and take necessary corrective actions to prevent	Daily EGBI Analyzer Check Record

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		when the test samples are passed through the EGBI analyzer. The EGBI analyzer must reject the bottle.	must include all four sample tests. 4) Place the foreign material sample inside the empty glass bottle and pass the bottle through the EGBI analyzer. A properly operating EGBI analyzer must detect the foreign material sample in the bottle. Each time a foreign material contaminant is detected, the bottle must be rejected by EGBI analyzer and dumped into the rejection bin attached to the EGBI analyzer. 5) Check the glass bottle defect samples (blisters, cracks, body marks, colour, baffle marks) one at a time. Each check must include all five sample tests. 6) Place the glass bottle sample (containing the defect) through the EGBI analyzer. A properly operating EGBI analyzer must detect the defect in the bottle. Each time a defect is detected, the bottle must be rejected by EGBI analyzer and dumped into the rejection bin attached to the EGBI	corrective actions to prevent reoccurrence. 4) Record all non-conformances and corrective actions taken on the "Daily EGBI Analyzer Check Record," including the date, the time, and initials.	reoccurrence. 4) Record all observations (e.g., whether the machine is operating effectively, non-conformances, and corrective actions) on the "Daily EGBI Analyzer Check Record," including the date, the time, and initials.	

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			analyzer. 7) Record each test as acceptable (“✓”) (i.e. EGBI analyzer is functioning properly) or unacceptable (“X”) (i.e. EGBI analyzer is not functioning properly) on the “Daily EGBI Analyzer Check Record,” including the date, the time, and initials.			

Batch Pasteurizer Recording Chart

Critical Control Point # 1 (Biological)

Batch pasteurizer recording chart must contain the information listed below:

1. Establishment name and address.
2. Date, shift and batch/vat number.
3. The times the vat was filled and emptied.
4. Product type and amount of product processed.
5. Safety thermal limit recorder (STLR) identification when more than one is used.
6. Identification of cleaning in place (CIP) cleaning cycles, or "mini-wash" cycles (if used).
7. Indicator thermometer readings at the start and during the holding period.
8. Air space thermometer temperature readings at that start and during the holding period.
9. The holding period start time and finish time.
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 EGBI Analyzer Check Record

Critical Control Point # 2 (Physical)

Critical Limits:

1) The EGBI analyzer must detect 3.0 mm metal, 3.5 mm wood and 3.5 mm plastic and 2.5 mm stone test samples when the test samples are passed through the EGBI analyzer with the bottled product. The EGBI analyzer must reject the bottle.

2) The EGBI analyzer must detect glass bottle defects test samples (blisters, cracks, body marks, colour, baffle marks) when the test samples are passed through the EGBI analyzer. The EGBI analyzer must reject the bottle.

Record each test as acceptable ("✓") (i.e. EGBI analyzer is functioning properly) or not acceptable ("X") (i.e. EGBI analyzer is not functioning properly)

Date: 2015/11/02 **Product Name:** Beer **Batch Number:** 1

Test Sample	Time					
	12:20	13:04	16:02	17:06	18:06	18:24
3.0 mm metal	✓	✓	✓	✓	✓	✓
3.5 mm wood	✓	✓	✓	✓	✓	✓
3.5 mm plastic	✓	✓	✓	✓	✓	✓
2.5 mm stone	✓	✓	✓	✓	✓	✓
Glass defect sample # 1 (blisters)	✓	✓	✓	✓	✓	✓
Glass defect sample # 2 (cracks)	✓	✓	✓	✓	✓	✓
Glass defect sample # 3 (body marks)	✓	✓	✓	✓	✓	✓
Glass defect sample # 4 (colour)	✓	✓	✓	✓	✓	✓
Glass defect sample # 5 (baffle marks)	✓	✓	✓	✓	✓	✓
Initials	CC	CC	CC	CC	CC	CC
Record non-conformance and corrective actions here:						
Daily verification:			MN	Date: 2015/11/05		
Weekly verification:			ML	Date: 2015/11/09		