

Biological: Bacteria, viral, or paracetic pathogens. Chemical: chemical residues  
Physical: glass, metal, or rubber fragments, yeast/bacterial sediment

Hazard Analysis

			Brewing	Packaging								
Process Step	Food Safety Hazard	Reasonably Likely to Occur?	Severity & Likelihood	Basis	If yes in column C, what measures could be applied to prevent, eliminate, or reduce hazard to an acceptable level?	Is this a CCP?	Critical Control Point	Critical Limits	Monitoring Procedures and Frequency	HACCP Records	Verification Procedures and Frequency	Corrective Action
Water Supply	Biological-	No	2E_16	We use Bend City water, ran through a charcoal filter and in the instance that Bend City water is not potable the city would contact us	Bi-annual water testing by 3rd party	N		Potable Water	Bi-annual water testing by 3rd party	Filed in HACCP binder, and digital HACCP	Data from 3rd party is archived	Contact Bend Municipal Water
	Physical-	No										
	Chemical-	No										
Brew Tea Concentrate	Biological-	Yes	2C_8	Mold and pathogens may be present in dry tea	vat pasteurize tea when	Y	Temp	Must steep >145 degree F for 30 minutes	Temp recording and signoff on brewing log for each tea batch #	Temp recorded per batch in brewing log	Temp log signoff verified weekly by brew team lead	Always verify proper temp when brewing tea, prior to transport to fermenters
	Physical-	Yes	4C_18	Debris from open lid and/or sugar addition	SOP for adding sugar	N	Prepping sugar for kettle	Sugar packaging is secure and in tact	Visual inspection of sugar packaging			Always filtered prior to entering fermenters with 540 micron
	Chemical-	Yes	3D_17	Teabags washed with soap. Residual chemical from CIP of kettle	SOP for washing of teabags, utilize kettle CIP log to verify cleaning and sanitization	Y	Cleaning/sanitization of teabags, CIP of kettle	No soap used with teabags, no chemical residue	Review teabag cleaning log prior to each use, review kettle CIP log at start of day batch	Teabag cleaning signoff in brewing log, Kettle CIP log	Teabag cleaning in brewing log as teabags are cleaned (twice a week). Daily signoff for CIP of kettle. Verified daily and weekly by brew team	If teabags washed improperly do not use until rewashed using SOP. Review SOP for kettle CIP to ensure proper use of chemicals and sanitizer
Transport to Fermenters	Biological-	N										
	Physical-	No (pump used for this has stainless steel impeller)										
	Chemical-	Yes	2C_8	Residual chemical from CIP	Following SOP for transport to fermenters (prime the line)	Y	Prior to transport to fermenters	Line must be primed		Sign off for tank and equipment cleaning that follows SOP		CIP lines if not documented/unsure. If hosing is used and not proven clean product must be dumped.

Fermentation Maintenance	Biological-	Yes	2D_12	Open fermenters; mold spores, pH not low enough	Measurement of pH	Y	When sweet tea is added to fermenter	Must be under 4.5 pH	Measure pH prior to and post fermentation	Fermenting tea pH log	Measure pH prior to and post fermentation. PH prior and post fermentation is recorded with each batches tracking data	If pH is above 4.5 tea is dumped
	Physical-	Yes	2C_8	Fruit flies	Keeping fermenters covered, utilize traps when fruit flies present	Y	When fermenters are open especially in warmer months	No presence of any adult or larva fruit fly in fermenter allowed	Pre and post harvest visual inspection, also when cleaning tank	Log any contaminated tanks	Review logs weekly to try and identify patterns	Any contaminated product dumped and logged
	Chemical-	No										
Harvest Kombucha to Brites	Biological-	Yes	2C_8	Unsanitized equipment	SOP for all equipment in direct contact with kombucha	Y	Prior to use	Must be sanitized prior to use	Brew team lead constantly enforcing			Do not use any equipment without prior sanitization
	Physical-	Yes	4C_21	Impeller/gasket parts	516 micron filter used, weekly inspection and	Y	Filtering	Visual sign of equipment malfunction	Inspection of impeller in pump, pre and post use	Log for daily inspection of impeller	Pump inspection log verified weekly	Contaminated tea batch is dumped, and logged as dumped
	Chemical-	Yes	2C_8	Residual chemical from CIP	Visual check that brite is clean and all residual liquid evacuated	Y	Prior to harvesting into brite tank	Any chemical residue	Inspect bite tank CIP log prior to filling to verify cleaned and with adequate	Brite tank CIP log	Brite tank ticket verifies that tank has been CIP, weekly review of CIP log	If CIP not logged, CIP tank prior to fill, If brite tank is ever filled dirty dump product
Flavor Blend Creation/Adding Flavor	Biological-	No										
	Physical-	Yes	4C_18	Pump/impeller parts, debris from open lid	516 micron filter used, weekly inspection and maintenance of all pumps	Y	Filtering	Visual sign of equipment malfunction and/or particulate loss	Inspection of impeller in pump, pre and post use	Log for daily inspection of impeller wholeness	Pump inspection log verified weekly	Contaminated tea batch is dumped, and logged as dumped
	Chemical-	Yes	2C_8	Residual chemical from CIP( brite tank and equipment)	Visual check that brite is clean and all residual liquid evacuated, chemical/sanitizer concentration		Prior to harvesting into brite tank	No chemical residue allowed	Inspect bite tank CIP log prior to filling to verify cleaned and with adequate chemical/sanitizer concentration	Brite tank CIP log	Brite tank ticket verifies that tank has been CIP, weekly review of CIP log	If CIP not logged, CIP tank prior to fill, If brite tank is ever filled dirty dump product
Recirculate and Carbonate	Biological-											
	Physical-	Yes	4C_18	Impeller/gasket parts	516 micron filter used, weekly inspection and	Y	Filtering	Visual sign of equipment malfunction	Inspection of impeller in pump, pre and post use	Log for daily inspection of impeller	Weekly verification of impeller inspection log	Contaminated tea batch is dumped, and logged as dumped
	Chemical-											
Label Bottle(Package bottle)	Biological-	No										
	Physical-	No										
	Chemical-	No										
Rinse Bottle (Package bottle)	Biological-	Yes	2C_8	If rinse water is stagnant	Rinse water reservoir is used for sanitization step of Meheen CIP then air dried	Y	sanitization step of Meheen CIP	reservoir not dry from previous days bottling run	Daily signoff that reservoir was dry and fresh water filled	log daily reservoir signoff	Weekly verification of Bottling Line Cleaning/Sanitation log	reservoir is washed and sanitized if found with liquid from previous day

[illegible]

[illegible][illegible][illegible]

Retail Fills	Biological-	Yes	4_18C	Inadequate cleaning could lead to contamination	Follow Taproom Taps, Faucets and Line Cleaning/Sanitation SOP	N				Taproom Log	Log reviewed by Taproom manager weekly	If faucets and lines are discovered not cleaned/ sanitized following SOP
	Physical-	Yes	4_18C	Fill tubes fall into growlers sometimes	Follow SOP for Filling a Growler or Container in Humm Kombucha Taproom	N			Double check every fill when tube is used			Remove tube if within container and restart container filling SOP
	Chemical-	Yes	2_8C									

Food Safety Risk Analysis Matrix

		Common	Known to Occur	Could Occur (pub.)	Not expected to occur	Practically Impossible
Consequence	Frequency	A	B	C	D	E
1. Fatality		1	2	4	7	11
2. Serious illness		3	5	8	12	16
3. Product recall		6	9	13	17	20
4. Customer Complaint		10	14	18	21	23
5. Insignificant		15	19	22	24	25