

FOOD SAFETY PLAN:
PEPPERS IN BRINE NON THERMAL PROCESS



COMPANY OVERVIEW

Empacadora del Golfo de México has a long history as a canner of vegetables and fruits. The firm’s history began in the fall of 1940, when a group of investors from México City bought a small, family-run cannery and founded Empacadora del Golfo de México. After 77 years of hard work; it has become one of the largest vegetable canners in Mexico. Its brands “FARO”, “JAROCHITA” and “LA COMADRE”, are well known and preferred by the consuming public in most of México, large parts of the United States as well as in several other countries where the company is sending its products. Also, a large percentage of our sales are under our customer’s private label.

We have the capacity to pack canned vegetables in: cans, pet jars, plastic bags, plastic buckets and plastic drums. Since March 2002, Empacadora del Golfo is operating in a new and modern food processing facility that will allow the company to grow over the next few years and adapt to the new demands of the market. Our product line includes green tomatillo, chipotle and serrano peppers, Mexican hot sauces and jalapeño peppers. Our brands have been the standard for flavor and quality in all markets where we compete for many years.



Developed by: Adriana Cruzado Hernández, Food safety specialist PCQI, December 2022
Approved: Mónica Núñez Rechy, Food Safety Manager PCQI, February 2023

Empacadora del Golfo de México, S.A. de C.V. Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx FDA´s FFR 10490143368, D-U-N-S Number 81-062-0575	Code:	AC-SGC-FSP-4
	Issue:	20/11/2021
	Revision:	03/02/2023
	Edition:	3

FOOD SAFETY PLAN:

PEPPERS IN BRINE NON THERMAL PROCESS



PRODUCT DESCRIPTION

Products Names	Sliced Jalapeño Peppers in pouch, Sliced Jalapeño Peppers in pet jar, Banana Peppers in pet jar, Sliced Jalapeño Peppers in pail, Sliced Jalapeño Peppers in drum
Products Descriptions, including important food safety characteristic	<p>Sliced Jalapeño Peppers: It refers to green jalapeño peppers, healthy, ripe and clean, cut transversely into slices nachos 1/4" to 5/16 "thick, firm texture and crunchy. The product is hermetically packaged in food approved material. It is an acidified food with a pH at the final balance of 3.5 or less for drum products and 3.2 form pouch, pails & pet jars, with water activity (aw) greater than 0.85.</p> <p>Banana Peppers: It refers to banana peppers, healthy, ripe and clean, cut in wavy slices from 1/4" to 5/16" thick, with a firm and crunchy texture. The product is hermetically packaged in food approved material. It is an acidified food with a pH at the final balance of 3.5 or less, with water activity (aw) greater than 0.85.</p>
Ingredients	Jalapeño Peppers, Banana Peppers, Water, Salt, Acetic Acid, Citric Acid, Sodium Benzoate, Potassium Sorbate, Calcium Chloride, Sodium Metabisulphite, Curcumin.
Type of Packaging	<p>Pouch: Polyamide and polyethylene bag</p> <p>Pet jar: Plastic PET (Polyethylene Terephthalate) Jar & Polypropylene Plastic, 4-layer induction liner</p> <p>Pails: High density polyethylene</p> <p>Drum: Polyethylene drum with lid, High density polyethylene grill</p>
Indications of use	After opening the container empties the contents in a container and refrigerate, it is consumed indirectly since it is used as an ingredient in the preparation of various foods.
Intended use	It is aimed at industrial customers or the Food Service for use in the production of different food products. Recommended for adults and children over 10 years old. Not recommended for people with medical restriction to irritating foods and with excess of sodium.
Shelf Life	12 to 24 months
Labeling instructions related to food safety	Store in a cool, dry place. Once opened refrigerate. Do not consume the food if the packaging is inflated.
Storage and distribution	Room temperature. Minimum recommendation 7 ° C, maximum 40 ° C in a clean and dry place.

Empacadora del Golfo de México, S.A. de C.V.

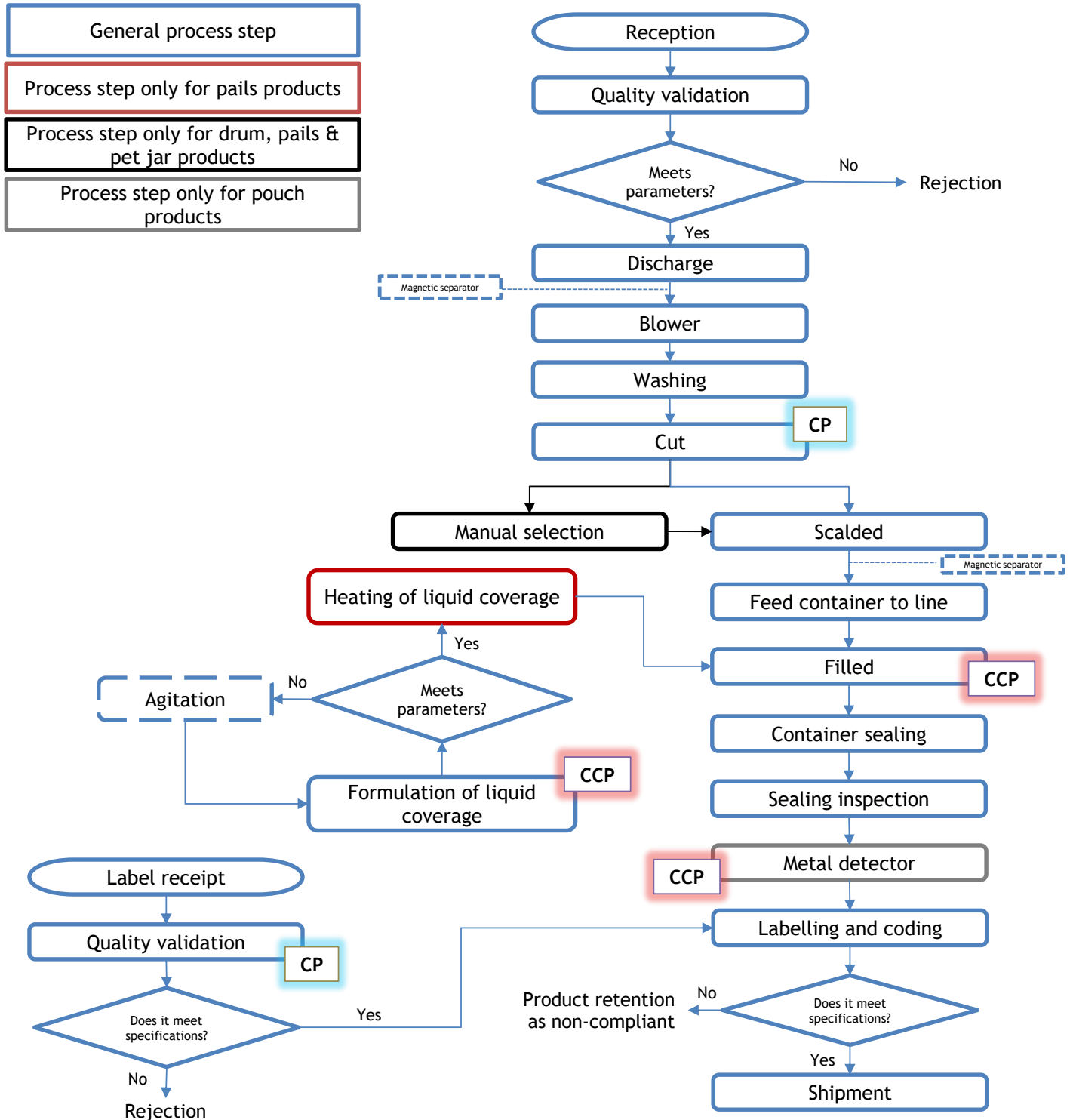
Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico
 Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx
 FDA´s FFR 10490143368, D-U-N-S Number 81-062-0575

Code:	AC-SGC-FSP-4
Issue:	20/11/2021
Revision:	03/02/2023
Edition:	3

FOOD SAFETY PLAN: PEPPERS IN BRINE NON THERMAL PROCESS



PROCESS FLOW CHART



Empacadora del Golfo de México, S.A. de C.V.

Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico

Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx

FDA's FFR 10490143368, D-U-N-S Number 81-062-0575

Code: AC-SGC-FSP-4

Issue: 20/11/2021

Revision: 03/02/2023

Edition: 3

FOOD SAFETY PLAN: PEPPERS IN BRINE NON THERMAL PROCESS



PROCESS NARRATIVE

Raw materials, Ingredients and Packaging Materials

Ingredients and raw materials are purchased from accredited suppliers who comply with international food safety and quality systems. All suppliers are subject to a review process prior to being authorized as reliable suppliers. Ingredients are stored according to the manufacturer's recommendations when these are specified.

Received Raw Materials

Raw materials	Suppliers / Manufacturer	Origin	Description
Jalapeño Pepper (whole)	Guillermo Gómez (GU)	Mexico	Received in plastic grid of 30 kg.
Jalapeño Pepper (whole)	Roberto Gómez (RO)	Mexico	Received in plastic grid of 30 kg.
Jalapeño Pepper (whole)	Alfredo Gómez (AL)	Mexico	Received in plastic grid of 30 kg.
Jalapeño Pepper (whole)	Ignacio Oloarte (JO)	Mexico	Received in plastic grid of 30 kg.
Jalapeño Pepper (whole)	Antonio Pimentel (AP)	Mexico	Received in plastic grid of 30 kg.
Banana Pepper (whole)	Guillermo Gómez (GU)	Mexico	Received in plastic grid of 30 kg.
Banana Pepper (whole)	Roberto Gómez (RO)	Mexico	Received in plastic grid of 30 kg.
Salt (granules)	Industria Salinera de Yucatán (Comercial Salinera Roche, S.A. de C.V.)	Mexico	Received in 110 pound polypropylene resin bags (50 kg) from our distributor. Specifications require food grade salt.
Acetic Acid (liquid)	Industrial Monfel S.A de C. V (INEOS Acetyls America)	United States	Received in 15-20 Ton capacity containers with security seals from our distributor.
Acetic Acid (liquid)	Pochteca Materias Primas, S.A. de C.V. (Celanese Chemical, Sekisui)	United States	Received in 15-20 Ton capacity containers with security seals from our distributor.
Acetic Acid (liquid)	Quimidroga S.A. (INEOS Acetyls UK Ltd)	United Kingdom	Received in 1ton capacity containers with security seals from our distributor.
Citric Acid (powder)	Pochteca Materias Primas, S.A. de C.V. Comercializadora Veyco, S.A. de C.V. (RZBC Juxian CO. LTD)	China	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Citric Acid (powder)	Comercializadora Veyco, S.A. de C.V. Proveedor Int. de Químicos S.A. de C.V. (Weifang Ensign Industry CO. LTD)	China	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Sodium Benzoate (granulated)	Pochteca Materias Primas, S.A. de C.V. Comercializadora Veyco, S.A. de C.V. (Emerald Kalama Chemical LLC)	United States	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Sodium Benzoate (granulated)	Proveedor Int. de Químicos S.A. de C.V. (Tianjin Dongda Chemical Group CO. LTD)	China	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Potassium Sorbate (powder and granulated)	Pochteca Materias Primas, S.A. de C.V. Comercializadora Veyco, S.A. de C.V. Proveedor Int. de Químicos S.A. de C.V. (Ningbo Wanglong Tech CO. LTD)	China	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Sodium Metabisulfite (powder)	Pochteca Materias Primas, S.A. de C.V. (BASF SE)	Germany	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Sodium Metabisulfite (powder)	Pochteca Materias Primas, S.A. de C.V. (ESSECO S.R.L)	Italy	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.
Calcium Chloride (pellets)	Pochteca Materias Primas, S.A. de C.V. (Industrias del Alcalí, S.A. de C.V.)	Mexico	Received in 55 pounds (25 kg) polyethylene bag contained in carton from our distributor.

FOOD SAFETY PLAN: PEPPERS IN BRINE NON THERMAL PROCESS



Raw materials	Suppliers / Manufacturer	Origin	Description
Curcumin (liquid)	Farbe Naturals S.A.P.I. de C.V.	Mexico	Received in containers of 5 Gal from our distributor.
Curcumin (liquid)	Picsa de México Internacional S.A. de C.V.	Mexico	Received in containers of 5 Gal from our distributor.
Water	Veracruz Municipality	Mexico	Received at the storage well, sodium hypochlorite is added in the tank to achieve a free chlorine concentration of - 1.5 ppm in the production lines.

Received Packing

All packing materials are received in pallets and stacked. There are specifications of each product that guarantee that the packages that have direct contact with the product are made with food grade materials. The boxes are checked to verify that they meet the requirements and are free of allergenic ingredients of the product.

Storing Ingredients and Packaging

- Raw materials are processed as soon as they are received at the facility.
- Ingredients are stored according to supplier recommendations in a controlled area for access.
- Packaging is stored according to the supplier's recommendations in an exclusive area for packaging materials.

Steps of the process

Quality validation	The quality of the raw material, the ingredients and the packaging are verified before being downloaded. If they meet the quality parameters, the download is authorized.
Meets the parameters	Yes: if the raw material, the ingredients and the packaging comply with the parameters, the download is authorized No: the load is rejected.
Discharge	The unloading of raw materials takes place in the production area and the unloading of ingredients and packaging materials takes place in the finished product warehouse.
Blower	Blowing is carried out for the removal of foreign matter from the raw material.
Washing	The jalapeños are spray washed with chlorinated water (0.2 - 1.5 ppm).
Cut	At this stage the jalapeño pepper is cut into 1/4" or 5/16" thick slices or diced. The percentage of defects must be according to the specification of each product.
Manual selection	The selection of the sliced on a conveyor belt is performed, to remove the pieces out of specification.
Scalded	Blanching is carried out in a blancher with hot water and steam (T = 145.4°F - 185°F according to the product), to inactivate enzymes, fix the color and soften the product to favor its subsequent packaging.
Feed container to line	The containers are sent by means of a band transporter.
Formulation of liquid coverage	In the formulation area, the liquid is prepared according to the approved formulations manual, each batch of liquid prepared is verified in the quality assurance laboratory, if it complies with the %Ac, %Cl and pH parameters of the batch specification it is approved and if it does not comply with the parameters, it does not approve, perform the adjustment and verify again until the parameters fall within the specification.
Heating of liquid coverage	The cover liquid is heated to a temperature of T =176°F - 179.6°F.
Filled (scalded product and liquid coverage)	The cans are filled with blanched product by a drum filler with a reference weight and then go through the addition of the cover liquid to acidify the product.
Container sealing	Pet Jar: After the stage of filling of liquid of cover, the closing of the containers is carried out in an automatic seamer. Pouches: The sealing of the coil takes place in an automatic sealer, by means of the application of heat, the sealing temperature is established according to the specification of the film and ambient temperature. Drums: After filling with the covering liquid, the grid is placed on the product and the lid is put on. Pails: After the filling stage of the covering liquid, the closing of the containers is carried out with a piston at a closing temperature of 172.4°F-176°F

FOOD SAFETY PLAN: PEPPERS IN BRINE NON THERMAL PROCESS



Sealing inspection	<p>Pet jar: The top seal is visually checked and by applying force on the body of the container to visualize any leakage, the product that does not pass this test is removed.</p> <p>Pouches: The seal of the bag is checked visually and by means of a piston (application of force on the bag), the bags that do not pass this test are removed.</p> <p>Pails: The pails are inverted to visualize liquid leaks and homogenize the product, the pails that do not pass this test are removed.</p> <p>Drums: At the end of the process, safety straps are applied.</p>
Metal detector	At this stage the product passes through the calibrated metal detection equipment (Ferrous 2.5mm, No Ferrous 3.5mm, Stainless steel 5mm).
Quality validation	It refers to the inspection of attributes, variables and review of legal texts of labels against an approved specification.
Labeling and coding	If the final product comply with the parameters of the specification, the labeling and coding of the product is released and continued according to the product identification system and traceability lotification AC-MP-COD-1.
Check finished product parameters	A physicochemical analysis of the finished product is performed 24 hours after production to determine its release or detection; Yes: released for storage, No: retention of the product as nonconforming.
Product detection as non-compliant	Quality management evaluates the nature of the non-conformity to consider the alternatives for the disposition of the units of non-conforming products and to decide what disposition will be taking.

Empacadora del Golfo de México, S.A. de C.V.

Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico
Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx
FDA's FFR 10490143368, D-U-N-S Number 81-062-0575

Code: AC-SGC-FSP-4

Issue: 20/11/2021

Revision: 03/02/2023

Edition: 3

HAZARD ANALYSIS (INGREDIENTS AND PACKING MATERIAL)

Ingredient, packing material	Identify potential food safety hazards introduced, controlled or enhanced at this step		Risk evaluation (Is it a potential food safety hazard?)			Requires a preventive control?	Justify your decision for risk evaluation	What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard?
			Impact	Likelihood	Impact x Likelihood			
Jalapeño Pepper	B	Presence of pathogenic bacteria : Salmonella, ECEH, Listeria Monocytogenes, C. Botulinum, Bacillus cereus, Presence of viruses : Norovirus, Hepatitis A, Presence of parasites : Cryptosporidium parvum, Cyclospora cayetanensis, Lamblia, Toxoplasma gondii, Trichinella spp.	Catastrophic	Likely	High	Yes	Catastrophic : Diseases caused by bacteria, viruses and parasites in food affect millions of people every year, sometimes with serious or fatal consequences. <i>Reference: WHO.</i> Likely : According to the FSPCA standardized curriculum, these microorganisms are the biological hazards of concern in fresh vegetables due to the history of food contamination found in the United States. <i>Reference: FSPCA.</i> According to the chemical characteristics of the product, the pathogenic bacteria that have growth at pH close to the product are Salmonella (3.7) and E. Coli (4.0). <i>Reference: FSPCA Ap4 Supplemental Information on Foodborne Pathogens.</i>	1. Supply chain: Supplier development. 2. Process Control (washing of the vegetable with chlorinated water, cooking, acidification of the product). 3. CCP2: Commercial sterilization.
Jalapeño Pepper	C	Presence of Heavy metals above legal limits: Lead, Cadmium	Critical	Seldom	Medium High	Yes	Critical : If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom : Lead and cadmium are chemicals that can be found in plants and crop soils as a result of treatments with pesticides based on these substances. In 2022, there is a food safety alert for red chili from Vietnam with concentrations greater than 0.02 mg/kg. There is a 5-year history of results for heavy metals in raw materials with results within legal limits. <i>Reference: RASFF Database.</i>	1. Supply chain: Supplier development 2. Verification of raw material by accredited laboratory analysts
Jalapeño Pepper	C	Presence of Pesticides residues above legal limits	Critical	Frecuent	High	Yes	Critical : Pesticide residues in high concentrations may have adverse health effects, e.g., cancer, reproductive, immune or nervous system consequences. <i>Reference: Health consequences of pesticide use in agriculture, WHO 1992.</i> Frecuent : According to databases, pesticide residues are one of the main food safety hazards in vegetables, in 2018 carbendazim residue was detected in canned Jalapeño peppers from Cuautitlan Izcalli, Mexico. In 2022, several food safety alerts were issued due to the presence of pesticides outside legal limits. <i>Reference: Red List FDA, RASFF Database.</i>	1. Supply chain: Supplier development. 2. Verification of raw material by accredited laboratory analysts
Jalapeño Pepper	P	Presence of foreign materia (stones, wood, plastic, metal, glass)	Moderate	Seldom	Medium Low	No	Moderate : Depending on the size and shape of the object, it may cause choking, mouth injury or other adverse health effects. <i>Reference: FSPCA.</i> Seldom : The raw material comes from agricultural activities, so the presence of foreign matter such as stones or wood is possible, so there have been no complaints from customers about foreign matter coming from the fields.	1. Supply chain: Supplier development 2. Foreign matter removal equipment: Blower, magnetic separators 3. Step process: selection band
Banana Pepper	B	Presence of pathogenic bacteria : Salmonella, ECEH, Listeria Monocytogenes, C. Botulinum, Bacillus cereus, Presence of viruses : Norovirus, Hepatitis A, Presence of parasites : Cryptosporidium parvum, Cyclospora cayetanensis, Lamblia, Toxoplasma gondii, Trichinella spp.	Catastrophic	Likely	High	Yes	Catastrophic : Diseases caused by bacteria, viruses and parasites in food affect millions of people every year, sometimes with serious or fatal consequences. <i>Reference: WHO.</i> Likely : According to the FSPCA standardized curriculum, these microorganisms are the biological hazards of concern in fresh vegetables due to the history of food contamination found in the United States. <i>Reference: FSPCA.</i> According to the chemical characteristics of the product, the pathogenic bacteria that have growth at pH close to the product are Salmonella (3.7) and E. Coli (4.0). <i>Reference: FSPCA Ap4 Supplemental Information on Foodborne Pathogens.</i>	1. Supply chain: Supplier development. 2. Process Control (washing of the vegetable with chlorinated water, cooking, acidification of the product). 3. CCP2: Commercial sterilization.
Banana Pepper	C	Presence of Heavy metals above legal limits: Lead, Cadmium	Critical	Seldom	Medium High	Yes	Critical : If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom : Lead and cadmium are chemicals that can be found in plants and crop soils as a result of treatments with pesticides based on these substances. There is a 5-year history of results for heavy metals in raw materials with results within legal limits. <i>Reference: RASFF Database.</i>	1. Supply chain: Supplier development 2. Verification of raw material by accredited laboratory analysts
Banana Pepper	C	Presence of Pesticides residues above legal limits	Critical	Frecuent	High	Yes	Critical : Pesticide residues in high concentrations may have adverse health effects, e.g., cancer, reproductive, immune or nervous system consequences. <i>Reference: Health consequences of pesticide use in agriculture, WHO 1992.</i> Frecuent : According to databases, pesticide residues are one of the main food safety hazards in vegetables, in 2015 pirimicarb residue was detected in yellow pepper peppers from Belgium. The company is currently in the process of being removed from the Red list due to the presence of pesticides in the raw material. <i>Reference: Red List FDA, RASFF Database.</i>	1. Supply chain: Supplier development 2. Verification of raw material by accredited laboratory analysts
Banana Pepper	P	Presence of foreign materia (stones, wood, plastic, metal, glass)	Moderate	Seldom	Medium Low	No	Moderate : Depending on the size and shape of the object, it may cause choking, mouth injury or other adverse health effects. <i>Reference: FSPCA.</i> Seldom : The raw material comes from agricultural activities, so the presence of foreign matter such as stones or wood is possible, so there have been no complaints from customers about foreign matter coming from the fields.	1. Supply chain: Supplier development 2. Foreign matter removal equipment: Blower, magnetic separators 3. Step process: selection band

HAZARD ANALYSIS (INGREDIENTS AND PACKING MATERIAL)

Ingredient, packing material		Identify potential food safety hazards introduced, controlled or enhanced at this step	Risk evaluation (Is it a potential food safety hazard?)			Requires a preventive control?	Justify your decision for risk evaluation	What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard?
			Impact	Likelihood	Impact x Likelihood			
Salt	B	No significant food safety risk requiring preventive control is detected.						
Salt	C	Presence of heavy metals above legal limits: Lead, Mercury, Arsenic and Cadmium	Critical	Seldom	Medium High	Yes	Critical: If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom: According to the databases, there is no frequent evidence of heavy metal contamination, however, due to its origin, there is a possibility of contamination, in 2011 there was a finding in Germany of mercury droplets in table salt. <i>Reference: RASFF Database.</i>	1. Supply chain: Supplier development 2. Verification of ingredient by accredited laboratory analysis
Salt	P	Presence of foreign materia (wood, glass, plastic, sea shells, metal)	Moderate	Seldom	Medium Low	No	Moderate: Depending on the size and shape of the object, it may cause choking, mouth injury or other adverse health effects. Seldom: According to food safety risk databases, there are 2 events due to the presence of foreign matter in the ingredient; 11/03/2021 Spain: plastic particles, 24/09/2020 United Kingdom: foreign body (wood pieces). <i>Reference: RASFF Database.</i>	1. Supply chain: Supplier development
Acetic acid	B	No significant food safety risk requiring preventive control is detected.						
Acetic acid	C	Presence of heavy metals above legal limits: Lead	Critical	Seldom	Medium High	Yes	Critical: If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom: According to the databases, there is no frequent evidence of heavy metal contamination, however, due to its origin, there is a possibility of contamination. <i>Reference: FAO JECFA Monographs, INS No. 260.</i>	1. Supply chain: Supplier development 2. Verification of ingredient by accredited laboratory analysis
Acetic Acid	P	Presence of foreign materia (metal residues)	Moderate	Seldom	Medium Low	No	Moderate: Depending on the size and shape of the object, it may cause choking, mouth injury or other adverse health effects. <i>Reference: FSPCA.</i> Seldom: There has been only one event in 5 years of service due to the presence of metallic particles from poorly conditioned transport valves.The size of the detached particles is not a food safety hazard.	1. Supply chain: Supplier development
Acetic Acid	F	Food Fraud: Substance dilution, adulteration	Critical	Seldom	Medium High	Yes	Critical: Dilution may cause a change in the performance of the ingredient and will have direct consequences for the operation. Seldom: According to the food safety risk databases, only 1 event of acetic acid adulteration has been reported; 05/07/2010 Italy: adulteration (synthetic acetic acid) of white vinegar from Pakistan. <i>Reference: RASFF Database.</i>	1. Supply chain: Supplier development 2. Verification of concentration before the reception 3. Verification of ingredient by accredited laboratory analysis according to program
Citric acid	B	No significant food safety risk requiring preventive control is detected.						
Citric acid	C	Presence of Heavy metals above legal limits: Lead	Critical	Seldom	Medium High	Yes	Critical: If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom: According to the databases, there is no frequent evidence of heavy metal contamination, however, due to its origin, there is a possibility of contamination. <i>Reference: FAO JECFA Monographs, INS No. 330.</i>	1. Supply chain: Supplier development 2. Verification of ingredient by accredited laboratory analysis
Citric acid	P	No significant food safety risk requiring preventive control is detected.						
Calcium Chloride	B	No significant food safety risk requiring preventive control is detected.						
Calcium Chloride	C	Presence of heavy metals above legal limits: Magnesium, Fluoride, Lead	Critical	Seldom	Medium High	Yes	Critical: If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom: According to the databases, there is no frequent evidence of heavy metal contamination, however, due to its origin, there is a possibility of contamination. <i>Reference: FAO JECFA Monographs, INS No. 509.</i>	1. Supply chain: Supplier development 2. Verification of ingredient by accredited laboratory analysis
Calcium Chloride	C	Contamination with environmental pollutants: dioxins	Moderate	Seldom	Medium Low	No	Moderate: Dioxins are highly toxic and can cause reproductive and developmental problems, affect the immune system, interfere with hormones and thus cause cancer at high concentrations and constant exposure. <i>Reference: WHO.</i> Seldom: According to the food safety risk databases, only 1 event of dioxins contamination has been reported; 02/11/2018 Netherlands: dioxins in coated calcium chloride from Belgium, with raw material from China. <i>Reference: RASFF Database</i>	1. Supply chain: Supplier development
Calcium Chloride	P	No significant food safety risk requiring preventive control is detected.						
Sodium Benzoate	B	No significant food safety risk requiring preventive control is detected.						
Sodium Benzoate	C	Presence of heavy metals above legal limits: Lead	Critical	Seldom	Medium High	Yes	Critical: If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom: According to the databases, there is no frequent evidence of heavy metal contamination, however, due to its origin, there is a possibility of contamination. <i>Reference: FAO JECFA Monographs, INS No. 202.</i>	1. Supply chain: Supplier development 2. Verification of ingredient by accredited laboratory analysis

[illegible]

HAZARD ANALYSIS (INGREDIENTS AND PACKING MATERIAL)	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

Ingredient, packing material	Identify potential food safety hazards introduced, controlled or enhanced at this step		Risk evaluation (Is it a potential food safety hazard?)			Requires a preventive control?	Justify your decision for risk evaluation	What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard?
			Impact	Likelihood	Impact x Likelihood			
Water	B	Presence of pathogenic bacteria : O157:H7	Critical	Seldom	Medium High	Yes	Critical: Symptoms of illness caused by Shiga toxin-producing E. coli include abdominal cramps and diarrhea, which may progress in some cases to bloody diarrhea (hemorrhagic colitis). Fever and vomiting may also be present. <i>Reference: WHO.</i> Seldom: E. coli O157:H7 may be found in water sources, such as private wells, that have been contaminated with feces from infected humans or animals. Waste can enter the water through different ways, including sewage overflows, sewage systems that are not working properly, polluted storm water runoff, and agricultural runoff. <i>Reference: Center for Disease Control and Prevention.</i>	1. Verification by accredited laboratory analysis 2. Process Control (water chlorination) 3. CCP2: Commercial sterilization
Water	C	Presence of heavy metals above legal limits; Aluminum, Arsenic, Barium, Cadmium, Copper, Lead, Iron, Manganese, Mercury, Zinc, Chromium	Critical	Seldom	Medium High	Yes	Critical: If exposure to heavy metals in food is high, it can cause coma, convulsions and even death. <i>Reference: WHO.</i> Seldom: Historical records show that the water is within specification for heavy metals	1. Verification by accredited laboratory analysis
Water	C	Presence of radiation above legal limits	Catastrophic	Improbable	Medium Low	No	Catastrophic: Exposure to low levels of radiation present in the environment does not cause immediate health effects, however it is a secondary general risk factor for cancer. <i>Reference: EPA.</i> Improbable: There is a Nuclear Power Plant in the state of Veracruz "Laguna Verde". Due to historical background, there have been no positive results for radiation in the water used for the process.	1. Verification by accredited laboratory analysis
Water	P	No significant food safety risk requiring preventive control is detected.						
Primary packaging (Pouches)	B	No significant food safety risk requiring preventive control is detected.						
Primary packaging (Pouches)	C	Contamination of food by chemical migration from the packaging	Critical	Improbable	Medium Low	No	Critical: Migration levels of packaging chemicals in food are usually too low to result in acute adverse health effects; however, it is important to apply risk management measures to chemicals in order to protect consumers from potential adverse effects resulting from repeated exposure to packaging chemicals over a long period. <i>Reference: REGLAMENTO (UE) No 10/2011.</i> Improbable: According to the databases, there is no evidence of chemical migration in polyamide and polyethylene bags, however, here are cases of migration in other types of packaging materials with similar composition. <i>Reference: Database RASFF.</i>	1. Supply chain: Supplier development
Primary packaging (Pouches)	P	No significant food safety risk requiring preventive control is detected.						
Primary packaging (Pet jar)	B	No significant food safety risk requiring preventive control is detected.						
Primary packaging (Pet jar)	C	Contamination of food by chemical migration from the packaging	Minor	Improbable	Low	No	Minor: Because FDA has determined that tertiary recycling processes produce PCR-PET of suitable purity for food-contact use, the Agency no longer evaluates tertiary recycling processes for PCR-PET issues individual opinion letters for those processes. <i>Reference: Recycled Plastics in Food Packaging FDA 2020.</i> Improbable: There are no reports of health hazards associated with food packaged in this type of material.	1. Supply chain: Supplier development
Primary packaging (Pet jar)	P	No significant food safety risk requiring preventive control is detected.						
Primary packaging (pails)	B	No significant food safety risk requiring preventive control is detected.						
Primary packaging (pails)	C	Contamination of food by chemical migration from the packaging	Critical	Improbable	Medium Low	No	Critical: Migration levels of packaging chemicals in food are usually too low to result in acute adverse health effects; however, it is important to apply risk management measures to chemicals in order to protect consumers from potential adverse effects resulting from repeated exposure to packaging chemicals over a long period. <i>Reference: REGLAMENTO (UE) No 10/2011.</i> Improbable: According to the databases, there is no frequent evidence of chemical migration in high density polyethylene containers, however, permitted migration limits are maintained to ensure the safety of the product.	1. Supply chain: Supplier development
Primary packaging (pails)	P	No significant food safety risk requiring preventive control is detected.						
Primary packaging (drum & grill)	B	No significant food safety risk requiring preventive control is detected.						

HAZARD ANALYSIS (INGREDIENTS AND PACKING MATERIAL)

Ingredient, packing material	Identify potential food safety hazards introduced, controlled or enhanced at this step		Risk evaluation (Is it a potential food safety hazard?)			Requires a preventive control?	Justify your decision for risk evaluation	What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard?
			Impact	Likelihood	Impact x Likelihood			
Primary packaging (drum & grill)	C	Contamination of food by chemical migration from the packaging	Critical	Improbable	Medium Low	No	Critical: Migration levels of packaging chemicals in food are usually too low to result in acute adverse health effects; however, it is important to apply risk management measures to chemicals in order to protect consumers from potential adverse effects resulting from repeated exposure to packaging chemicals over a long period. <i>Reference: REGLAMENTO (UE) No 10/2011.</i> Improbable: According to the databases, there is no frequent evidence of chemical migration in high density polyethylene containers, however, permitted migration limits are maintained to ensure the safety of the product.	1. Supply chain: Supplier development
Primary packaging (drum & grill)	P	No significant food safety risk requiring preventive control is detected.						
Cardboard to assemble boxes	B	No significant food safety risk requiring preventive control is detected.						
Cardboard to assemble boxes	C	No significant food safety risk requiring preventive control is detected.						
Cardboard to assemble boxes	P	No significant food safety risk requiring preventive control is detected.						
Tape for pasting boxes	B	No significant food safety risk requiring preventive control is detected.						
Tape for pasting boxes	C	No significant food safety risk requiring preventive control is detected.						
Tape for pasting boxes	P	No significant food safety risk requiring preventive control is detected.						
Storing ingredients and packaging	B	No significant food safety risk requiring preventive control is detected.						
Storing ingredients and packaging	C	No significant food safety risk requiring preventive control is detected.						
Storing ingredients and packaging	P	No significant food safety risk requiring preventive control is detected.						

HAZARD ANALYSIS (PROCESSING STEP)

Processing Step	Identify potential food safety hazards introduced, controlled or enhanced at this step		Risk evaluation (Is it a potential food safety hazard?)			Requires a preventive control?	Justify your decision for risk evaluation	What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard?
			Impact	Likelihood	Impact x Likelihood			
Reception	B	No significant food safety risk requiring preventive control is detected.						
Reception	C	No significant food safety risk requiring preventive control is detected.						
Reception	P	No significant food safety risk requiring preventive control is detected.						
Quality validation	B	No significant food safety risk requiring preventive control is detected.						
Quality validation	C	No significant food safety risk requiring preventive control is detected.						
Quality validation	P	No significant food safety risk requiring preventive control is detected.						
Discharge	B	No significant food safety risk requiring preventive control is detected.						
Discharge	C	No significant food safety risk requiring preventive control is detected.						
Discharge	P	No significant food safety risk requiring preventive control is detected.						
Blower	B	No significant food safety risk requiring preventive control is detected.						
Blower	C	No significant food safety risk requiring preventive control is detected.						
Blower	P	No significant food safety risk requiring preventive control is detected.						
Washing	B	No significant food safety risk requiring preventive control is detected.						
Washing	C	No significant food safety risk requiring preventive control is detected.						
Washing	P	No significant food safety risk requiring preventive control is detected.						
Cut	B	No significant food safety risk requiring preventive control is detected.						
Cut	C	No significant food safety risk requiring preventive control is detected.						
Cut	P	Contamination with foreign materia : pieces of metal by blades	Critical	Occasional	Medium High	Yes	Critical: Hard or sharp objects are potential physical hazards and can cause: cuts to the mouth or throat damage to the intestines damage to teeth or gums. Reference: FSPCA. Occasional: There have been reports of FDA recalls caused by ruptured metal components, HEB; 2020, Kraft Heinz; 2018. Reference: Recalls, Market Withdrawals, & Safety Alerts FDA.	1. Blade check three times per shift 2. Maintenance check list 3. Magnetic separator
Manual selection	B	No significant food safety risk requiring preventive control is detected.						
Manual selection	C	No significant food safety risk requiring preventive control is detected.						
Manual selection	P	No significant food safety risk requiring preventive control is detected.						
Scalded	B	Contaminación with pathogenic bacteria from the enviroment; Salmonella and Listeria <i>Monocytogenes</i>	Catastrophic	Improbable	Medium Low	No	Catastrophic: Diseases caused by bacteria, viruses and parasites in food affect millions of people every year, sometimes with serious or fatal consequences. Reference: WHO. Improbable: According to the chemical characteristics of the product, the development of Listeria <i>Monocytogenes</i> and Salmonella is not possible.	1. GMP´s and sanitization procedures 2. CCP: Formulation
Scalded	C	No significant food safety risk requiring preventive control is detected.						
Scalded	P	No significant food safety risk requiring preventive control is detected.						
Feed container to line	B	No significant food safety risk requiring preventive control is detected.						
Feed container to line	C	No significant food safety risk requiring preventive control is detected.						
Feed container to line	P	No significant food safety risk requiring preventive control is detected.						
Formulation of liquid coverage	B	Survival of pathogenic bacteria ; Salmonella, ECEH, Listeria Monocytogenes, Clostridium Botulinum, Bacillus cereus	Catastrophic	Seldom	Medium High	Yes	Catastrophic: Foods with high acidity are known to be susceptible to contamination by pathogenic bacteria. Diseases caused by pathogenic bacteria in food affect millions of people every year, sometimes with serious or fatal consequences. Reference: WHO. Seldom: The acidity and salt concentrations of the brines are verified prior to their use in the production lines, historically there are no recurring deviations in the results obtained.	1. Procedures for making brines 2. Procedure for the analysis of coverage fluids 3. Cooking staff training 4. Verification of the pH in each batch of pre-prepared brine

HAZARD ANALYSIS (PROCESSING STEP)	
1	HAZARD ANALYSIS (PROCESSING STEP)

[illegible]

HAZARD ANALYSIS (PROCESSING STEP)

Processing Step	Identify <u>potential</u> food safety hazards introduced, controlled or enhanced at this step		Risk evaluation (Is it a potential food safety hazard?)			Requires a preventive control?	Justify your decision for risk evaluation	What preventive control measure(s) can be applied to significantly minimize or prevent the food safety hazard?
			Impact	Likelihood	Impact x Likelihood			
Label receipt and Quality validation	C	Undeclared allergens: Absence of sodium metabisulfite ingredient declaration on labels for bag and pet jar products.	Critical	Ocassional	Medium High	Yes	Critical: By October 1986, FDA had received 767 reports of adverse reactions following ingestion of sulfiting agents used as preservatives in packaged foods. Most of the reactions occurred in steroid-dependent asthmatics and many involved respiratory distress or failure, or anaphylaxis. FDA analyzed 22 deaths allegedly associated with sulfite ingestion and determined that 9 fatalities (all severe asthmatics) were probably and 5 fatalities (also asthmatics) were possibly due to sulfite ingestion. <i>Reference: FDA 1986</i> Occasional: TFoods with undeclared allergens are the #1 reason for recalls in the United States. Product recalls for undeclared sulfites are diverse. <i>Reference: Recalls, Market Withdrawals, & Safety Alerts FDA</i>	1. Compliance with U.S. labeling requirements 2. Verification of ingredient list upon receipt of labels.
Label receipt and Quality validation	P	No significant food safety risk requiring preventive control is detected.						
Labeling and coding	B	No significant food safety risk requiring preventive control is detected.						
Labeling and coding	C	No significant food safety risk requiring preventive control is detected.						
Labeling and coding	P	No significant food safety risk requiring preventive control is detected.						
Shipment	B	No significant food safety risk requiring preventive control is detected.						
Shipment	C	No significant food safety risk requiring preventive control is detected.						
Shipment	P	No significant food safety risk requiring preventive control is detected.						

PROCESS APPLIED PREVENTIVE CONTROLS PROGRAM

Preventive controls applied for process steps with a medium risk assessment or higher according to the hazard analysis.

PREVENTIVE CONTROLS (PC)										
Processing Step	Hazard		Critical Limits	Monitoring				Corrective Action	Verification	Records
				What	How	Frecuency	Who			
Cut	p	Contamination with foreign materia : pieces of metal by blades	Absence strange matter	Remains pieces of metal by blades	Review of blades in good condition, without breaks, during the process	At the beginning of the shift Each 3 hours Each shift changes In case of blade breakage	Maintenance staff Line Operator	1. The line is stopped, 2. The quality control personnel is informed, 3. Checks that the missing metal parts are found, 4. The product affected or at risk of presence of foreign matter is destroyed, 5. The area and equipment are washed, checked before starting production.	Record review	Report breakage of glass, fragile or hard plastic, metal and other materials ACPV / 01 PREL/12-RO-JIR Report of raw materials in slicers
bel receipt and Quality validat	C	Undeclared allergens	Sodium metabisulfite statement on pouch and pet jar labels	Sodium metabisulfite statement	Inspection of labels on receipt of the material	Each label reception	Quality personal	1. Reject the material, 2. Request corrective actions from the supplier and report the destruction of erroneous material.	Approval of labeling arts according to U.S. labeling guidelines.	Approval of labeling arts ACAA/1

PREVENTIVE CRITICAL CONTROLS (PCC)										
Processing Step	Hazard		Critical Limits	Monitoring			Corrective Action	Verification	Records	
				What	How	Frecuency				Who
Formulation of liquid coverage	B	Survival of pathogenic bacteria : Salmonella, ECEH, Listeria Monocytogenes, Clostridium Botulinum, Bacillus cereus	Pouch & Pet Jar Jalapeño Pepper pH: max 3.0, %Ac: 3.9 - 4.1 %Cl: 5.8 - 6.15 Pet Jar Banana Pepper: pH: max 3.6, %Ac: 3.8 - 4.2 %Cl: 6.8 - 7.2 Pail Jalapeño Pepper pH: max 3.0, %Ac: 2.8- 3.2 %Cl: 11.7 - 12.3 Drum Jalapeño Pepper pH: max 3.0, %Ac: 6.5- 7.5 %Cl: 17.5 - 18.5	pH, %Ac, %Cl	Titration: Analysis of the brine (% of Cl and Ac) pH measurement with potentiometer	Each batch before to being used in the production line	Preparation area operators Quality Assurance Supervisor	1. Formulation adjustment, 2. Formulation validation.	Record review	Analysis of coverage fluids ACLC / 1
Filled (scalded product and liquid coverage)	B	Survival of pathogenic bacteria : Salmonella, ECEH, Listeria Monocytogenes, Clostridium Botulinum, Bacillus cereus	Pouches 800g & 3 kg (all products): 1.31 PET Jar 1 gallon (all products): 1.01 PET Jar ½ gallon: 0.78 Drums: 1.35 Pails: 1.65	Solid-liquid ratio	Mathematical calculation: weight of mass drained with calibrated scale / volume of covering liquid	Each 60 minutes	Quality personal	Pouch product: If the drained weight is higher: 1. They stop from the processing lines. 2. Recalibration of scales 3. Separate the affected product If the volume of liquid added is lower: 1. They stop from the processing lines. 2. Separate the affected product. 3. Seek mechanical maintenance support Pet Jar, Drum & Pail product: If the drained weight is higher: 1. They stop from the processing lines. 2. Excess product is manually removed from each container If the volume of liquid added is lower: 1. They stop from the processing lines. 2. Separate the affected product.	Record review	Verification of CP and CCP (products without thermal process ACPC-PCC/2
Metal detector	P	Contamination with foreign materia (remains, pieces of metal by blades)	Ferrous 2.5mm No Ferrous 3.5mm 5/5 5mm	Verification of the metal detector sensibility	Pass witness tests on the 3 sections of the bag	At the beginning of the shift Each 3 hours	Line Operator	1. Stop the process, 2. Inform the production facilitator and the quality supervisor, 3. Hold the product until the last effective monitoring and identify it, 4. Check that the sensitivity and rejection parameters are correct, if necessary due to failures give notice to the maintenance department, ensure that the equipment returns to detect, 5. Once the equipment adequately detects the patterns, the retained product must be passed again, on 1 occasion either immediately or later on a scheduled basis, properly identifying it as non-compliant.	Record review	PREL/45-4 Calibration record and metal detection

ALLERGEN APPLIED PREVENTIVE CONTROLS PROGRAM

Ingredient Allergen Identification

Raw material	Manufacturer	Food Allergens in Ingredients										Preventive Control
		Egg	Milk	Soy	Wheat	Tree Nut	Peanut	Fish	Shellfish	Sesame	Sulphites	
Jalapeño Pepper	Guillermo Gómez	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Jalapeño Pepper	Roberto Gómez	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Jalapeño Pepper	Alfredo Gómez	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Jalapeño Pepper	Ignacio Oloarte	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Jalapeño Pepper	Antonio Pimentel	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Banana Pepper	Guillermo Gómez	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Banana Pepper	Roberto Gómez	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Salt	Industria Salinera de Yucatán	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Acetic Acid	INEOS Acetyls America	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Acetic Acid	Celanese Chemical, Sekisui	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Acetic Acid	INEOS Acetyls UK Ltd	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Citric Acid	RZBC Juxian CO. LTD	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Citric Acid	Weifang Ensign Industry CO. LTD	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Sodium Benzoate	Emerald Kalama Chemical LLC	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Sodium Benzoate	Tianjin Dongda Chemical Group CO. LTD	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Potassium Sorbate	Ningbo Wanglong Tech CO. LTD	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Sodium Metabisulfite	ESSECO S.R.L	No	No	No	No	No	No	No	No	No	Yes	Letter of Guarantee (No Allergens)
Sodium Metabisulfite	BASF SE	No	No	No	No	No	No	No	No	No	Yes	Letter of Guarantee (No Allergens)
Calcium Chloride	Industrias del Alcalí, S.A. de C.V.	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Curcumin	Farbe Naturals S.A.P.I. de C.V.	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)
Curcumin	Picsa de México Internacional S.A. de C.V.	No	No	No	No	No	No	No	No	No	No	Letter of Guarantee (No Allergens)

Formulation Allergen Identification

Formulation	Area	Food Allergens in Formulation										Preventive Control
		Egg	Milk	Soy	Wheat	Tree Nut	Peanut	Fish	Shellfish	Sesame	Sulphites	
VIBOL 2	Kitchen room	No	No	No	No	No	No	No	No	No	Yes	None
VIBOL 2 S/M	Kitchen room	No	No	No	No	No	No	No	No	No	No	Cleaning and sulfite verification before use, Color code for utensils
HBPC	Kitchen room	No	No	No	No	No	No	No	No	No	Yes	None
ROB	Salt room	No	No	No	No	No	No	No	No	No	No	None
ROC	Kitchen room	No	No	No	No	No	No	No	No	No	No	Tanks and manufacturing utensils exclusively for the preparation of sulfite and sulfite-free brines, separation of the storage area

Production line and brine preparation area Allergen Identification

Production Line	Are allergens used in surrounding areas?	Food allergens present in the area										Preventive Control
		Egg	Milk	Soy	Wheat	Tree Nut	Peanut	Fish	Shellfish	Sesame	Sulphites	
Pet Line	Yes	No	No	No	No	No	No	No	No	No	Yes	Cleaning and sulfite check before use
Lemba 1, 2, 3	Yes	No	No	No	No	No	No	No	No	No	Yes	None
Industrial product line	No	No	No	No	No	No	No	No	No	No	No	None
Selection area	No	No	No	No	No	No	No	No	No	No	No	None
Odenberg 1	No	No	No	No	No	No	No	No	No	No	No	None
Odenberg 2	No	No	No	No	No	No	No	No	No	No	No	None
Salt room	No	No	No	No	No	No	No	No	No	No	No	None
Kitchen room	Yes	No	No	No	No	No	No	No	No	No	Yes	Tanks and manufacturing utensils exclusively for the preparation of sulfite and sulfite-free brines, separation of the storage area

Allergen Verification Listing

Product	Allergen Statement
Sliced Jalapeño Peppers (Pouch & Pet Jar), Banana Peppers (Pet Jar)	Based on the identification of allergens in the raw materials, formulation, preparation and packaging areas, it is concluded that the listed products are allergen-free and intentionally contain Sodium Metabisulfite as a preservative.
Sliced Jalapeño Peppers (Pail), Sliced Jalapeño Peppers (Drum)	Based on the identification of allergens in the raw materials, formulation, preparation and packaging areas, it is concluded that the listed products are allergen-free. The plant produces products with sensitive chemicals and we have the necessary controls to avoid cross contamination.



SANITATION APPLIED PREVENTIVE CONTROLS PROGRAM

Hygienic zoning

According to Appendix 6 of the FSPCA Standardized Curriculum, the following questionnaire is used to determine the need for hygienic zoning according to risk in the facilities.

Question	Answer	Justification
1. Does the product formulation have an intrinsic property that would kill the environmental pathogen of concern?	Yes	Sliced Jalapeño Peppers and Banana Peppers packed in pouches, pet jar, drums and pails are an acidified product with a pH lower than <4.6, so it does not deserve the implementation of environmental monitoring or microbiological verification. This product has no history of contamination by pathogens, since it is not among the foods that have presented outbreaks of Salmonella and L. monocytogenes. Products with a pH of <4.2 or a water activity (aw) <0.88 are not reasonably likely to support foodborne pathogen growth even when products are held at optimum growth temperatures. Various combinations of pH and aw may also inhibit growth, but combinations, such as a pH >5.0 and aw >0.92. Reference: FDA (Institute of Food Technologists 2001).
2. Is the product or ingredient associated with pathogen contamination?	-	
3. Does the product receive a validated process control designed to kill environmental pathogens?	-	
4. Is the product exposed to the environmental after the kill step and before packaging?	-	
5. Are ready-to-eat ingredients used to produce a ready-to-eat product?	-	
6. Does a refrigerated ready-to-eat product support the growth of Listeria monocytogenes?	-	
If an intrinsic property eliminates environmental pathogens (e.g., the high acidity levels of vinegar-based sauces), the situation may not warrant the implementation of hygienic zoning.		

Safe Harbor Example: Ph and aw combinations that inhibit growth of vegetative cells and spores

Critical a _w values	Critical pH values			
	<4.2	4.2 - 4.6	>4.6 5.0	>5.0
<0.88	No growth	No growth	No growth	No growth
0.88 - 0.90	No growth	No growth	No growth	?
>0.90 - 0.92	No growth	No growth	?	?
>0.92	No growth	?	?	?
?Requires time/temperature control unless product testing demonstrates otherwise				

SANITATION APPLIED PREVENTIVE CONTROLS PROGRAM

Cleaning and Sanitation

Purpose	Frequency	Who	Procedure	Monitoring	Corrections	Records	Verification
Cleaning and disinfecting direct and indirect food contact surfaces is important to reduce cross contamination or recontamination of microorganisms that can affect quality and product safety.	<p>Cleaning without chemical detergents: At the beginning of the process, before the meal time, during process stops, at the end of the shift, no more than 12 hours of continuous production.</p> <p>Cleaning with chemical detergents: According to established production, no more than 24 hours of continuous production.</p> <p>Desinfection: According to the established production, no more than 24 hours of continuous production.</p>	Cleaning and sanitation team members, production line personnel.	According to cleaning SOPs.	Visual inspection of direct and indirect food contact surfaces after cleaning. Checking concentrations of cleaning chemicals.	If residues of dirt are observed on the equipment or structures, clean again. If the cleaning chemicals do not have the proper concentration, prepare a new solution.	PRLI/9-1, PRLI/9-2, PRLI/10, Cleaning record Lines, ACVL/01 Cleaning Validation Format, PRLI-42 Verification of concentration of cleaning solutions and sanitizers	Microbiological analysis of direct food contact surfaces with an external laboratory according to internal program.
Cleaning of surfaces to avoid cross-contamination with sulfites	Whenever the production of pet slices in jars without sodium metabisulfite is required.	Cleaning and sanitation team members, production line personnel.	According to cleaning SOPs.	Verification of sulfite concentration of the rinsing water by determination technique	Clean again Verification of sulfite concentration of the rinsing water by determination technique	ACVL/01 Cleaning Validation Format	Record review

Empacadora del Golfo de México, S.A. de C.V.

Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico

Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx

FDA's FFR 10490143368, D-U-N-S Number 81-062-0575

Code: AC-SGC-FSP-4

Issue: 20/11/2021

Revision: 03/02/2023

Edition: 3

SUPPLY CHAIN APPLIED PREVENTIVE CONTROLS PROGRAM

Preventive controls applied for process steps with a medium risk assessment or higher according to the hazard analysis.

PREVENTIVE CONTROLS (PC)										
Ingredient	Hazard		Critical Limits	Monitoring				Corrective Action	Verification	Records
				What	How	Frequency	Who			
Jalapeño pepper & Banana pepper	B	Presence of pathogenic bacteria	Absence	Salmonella, O157:H7	Sending of irrigation water or fresh raw material samples to external certified laboratory	Annual	Approved Supplier	Resampling, if the result is positive On-site supplier audit and execution of corrective action plans	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Jalapeño pepper & Banana pepper	C	Presence of Heavy metals above legal limits	Lead 0.1 mg/kg Cadmium 0.05 mg/kg Ref.: Codex Alimentarius Commission CF/14 INF/1 Contaminants and toxins	Lead & cadmium	Sending of ground and fresh raw material samples to external certified laboratory	Annual	Approved Supplier	Resampling, if the result is positive On-site supplier audit and execution of corrective action plans	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Jalapeño pepper & Banana pepper	C	Presence of Pesticides residues above legal limits	According to eCFR Title 40: Protection of Environment PART 180, considering the following groups: Pepper, Pepper, non bell, Vegetable fruiting group 8, 8-10	Pesticides residues	Sending of fresh raw material samples to external certified laboratory	Each crop and field	Food safety personnel	Resampling, if the result is positive On-site supplier audit and execution of corrective action plans	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Salt	C	Presence of heavy metals above legal limits	Lead: 2 mg/kg Mercury: 0.1 mg/kg Arsenic: 0.5 mg/kg Cadmium: 0.5 mg/kg Ref.: CODEX STAN 193-1995	Lead, Mercury, Arsenic and Cadmium	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Acetic acid	C	Presence of heavy metals above legal limits	Not more than 0.5 mg/kg Ref.: FAO JECFA INS No. 260	Lead	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Acetic Acid	F	Food Fraud: Substance dilution, adulteration	Not less than 99.5% Ref.: FAO JECFA INS No. 260	% concentration	Verification of % acidity using Food Chemical Codex analytical method	Each batch received	Material management personnel	Rejected of product, Request corrective actions from the provider	Sending of ingredient sample to external laboratory	Certificate of Analysis
Citric Acid	C	Presence of heavy metals above legal limits	Not more than 0.5 mg/kg Ref.: FAO JECFA INS No. 260	Lead	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Calcium Chloride	C	Presence of heavy metals above legal limits	Mg: Not more than 5% F: Not more than 40 mg/kg Pb: Not more than 2 mg/kg Ref.: FAO JECFA INS No. 509	Magnesium, Fluoride, Lead	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Sodium Benzoate	C	Presence of heavy metals above legal limits	Not more than 2 mg/kg Ref: FAO JECFA Monographs, INS No. 211	Lead	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Potassium Sorbate	C	Presence of heavy metals above legal limits	Not more than 2 mg/kg Ref: FAO JECFA Monographs, INS No. 202	Lead	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Sodium Metabisulfite	C	Presence of heavy metals above legal limits	Pb: Not more than 2 mg/kg Iron: Not more than 10 mg/kg Se: Not more than 5 mg/kg Ref: FAO JECFA Monographs, INS No. 223	Lead, Iron, Selenium	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Curcumin	C	Presence of heavy metals above legal limits	Not more than 2 mg/kg Ref: FAO JECFA Monographs, Curcumin	Lead	Sending of ingredient sample to external certified laboratory	Annual	Approved Supplier	Separation of the affected lot and destruction, Request corrective actions from the provider	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Water	B	Presence of pathogenic bacteria	Absence	E. Coli O157:H7	Sending of water samples to external certified laboratory	Annual	Food safety personnel	Resampling, if the result is positive execution of corrective action plans	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis
Water	C	Presence of heavy metals above legal limits	Aluminum: 0.2, Arsenic: 0.01, Barium: 0.7, Cadmium: 0.003, Copper: 2.0, Chromium: 0.05, Lead: 0.01, Iron: 0.3, Manganese: 0.1, Mercury: 0.006, Zinc: 3.0 (mg/L) Ref.: Guidelines for Drinking water Quality, WHO	Aluminum, Arsenic, Barium, Cadmium, Copper, Lead, Iron, Manganese, Mercury, Zinc, Chromium	Sending of water samples to external certified laboratory	Annual	Food safety personnel	Resampling, if the result is again out of specification, execute corrective action plans, resample the possibly affected product and release it according to results.	Review of the certificate of analysis sent by the external Laboratory	Certificate of Analysis

FOOD SAFETY PLAN:

PEPPERS IN BRINE NON THERMAL PROCESS



RECALL PLAN

The food safety leader is in charge of maintaining the recall plan and keeps originals in the Food Safety and Quality Laboratory.

Implementation records and forms used in preventive controls include the following:

1. Process preventive controls:

- Process control record: ACAG/3 Control of chlorine concentration in water, ACPC-PCC2 Verification of control points and critical control points (products with out thermal process), PREL/12-RO-JIR Report of raw materials in slicers, PREL/47-4 Calibration record and metal detection, PREL/3 Industrial Line monitoring record, PREL/10-2 Pet Jar Line monitoring record.
- Formulation control record: PRCO/1 Report of daily preparations and consumption in the brine room and kitchen, PRCO/2 Temperature control of covering liquids, Analysis of coverage fluids ACLC / 1.
- Cleaning record: PRLI/9-1, PRLI/9-2, PRLI/10, ACVL/01 Cleaning Validation Format

2. Supply chain program:

Certificates of analysis, Analysis results from external laboratories, Letters of guarantee.

3. Training records for qualified individuals (in personnel files):

External courses, evaluations, training lists.

Empacadora del Golfo de México, S.A. de C.V.

Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico
Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx
FDA´s FFR 10490143368, D-U-N-S Number 81-062-0575

Code:	AC-SGC-FSP-4
Issue:	20/11/2021
Revision:	03/02/2023
Edition:	3

FOOD SAFETY PLAN: PEPPERS IN BRINE NON THERMAL PROCESS



ANNEX

RISK ASSESSMENT MATRIX

Probability of occurrences			Impact				
			Catastrophic	Critical	Moderate	Minor	Negligible
Definition	Meaning	Value	(A)	(B)	(C)	(D)	(E)
Frequent	<ul style="list-style-type: none"> Occurs frequently Will be continuously experienced unless action is taken to change events 	5	5A	5B	5C	5D	5E
Likely	<ul style="list-style-type: none"> Occurs less frequently if corrective action is taken Documented through surveillance 	4	4A	4B	4C	4D	4E
Occasional	<ul style="list-style-type: none"> Occurs sporadically Discovered through surveillance 	3	3A	3B	3C	3D	3E
Seldom	<ul style="list-style-type: none"> Unlikely to occur Rarely, if ever, reported 	2	2A	2B	2C	2D	2E
Improbable	<ul style="list-style-type: none"> Highly unlikely to occur Never previously reported 	1	1A	1B	1C	1D	1E

- Risk is **High** for codes 5A, 5B, 5C, 4A, 4B, 3A
- Risk is **Medium High** for codes 5D, 5E, 4C, 3B, 3C, 2A, 2B
- Risk is **Medium Low** for codes 4D, 4E, 3D, 2C, 1A, 1B
- Risk is **Low** for codes 3E, 2D, 2E, 1C, 1D, 1E

Catastrophic (A)

- Regulatory / Compliance violations / issues
- Inability to validate data
- Withdrawal of product manufacturer
- Tainted product
- Materials breach
- Productions delays
- Technical miscommunications
- Security / confidentiality breaches

Critical (B)

- A non-compliance finding resulting in process, or operational degradation
- A security finding requiring immediate corrective action prior to continued operation
- Reoccurring violation of any safety regulation resulting in serious injury
- Production errors containing regulatory violations that pose direct consequence to the operation

Moderate (C)

- Security finding requiring a corrective action plan
- Production element errors that may pose indirect consequences to the operation

Minor (D)

- No regulatory action anticipated
- No compliance impact anticipated
- No evident security threat affected
- Minor errors in completed company policy & procedures
- Production error containing quality system and or opportunities for improvement

Negligible (E)

- No regulatory compliance violation
- No security confidentiality element affected
- On time production
- Validated experiments
- Clean product
- Properly executed communications

Reference: U.S. Department of Health & Human Services, Office of the Assistant Secretary for Preparedness and Response. Public Health Emergency Toolkit 2015.

Empacadora del Golfo de México, S.A. de C.V.

Av. Framboyanes 1393, Cd. Ind. Bruno Pagliai, Zip 91697, Veracruz Ver, Mexico
Phone 52 229 981 0614 Fax: 52 229 9 36 58 58, www.faro.com.mx
FDA's FFR 10490143368, D-U-N-S Number 81-062-0575

Code: AC-SGC-FSP-4

Issue: 20/11/2021

Revision: 03/02/2023

Edition: 3