Product Specification
For D´CAM SHRIMP Brand
Headless, Shell on, Block Frozen Shrimp (HLSO)

1. Raw Material Information

Shrimp:

Shrimp Species White Shrimp (*Litopenaeus vannamei*)
Country of origin Ecuador
Production Method Farm Raised

Shrimp must meet FDA-mandated chemical tolerance levels. At our plant, we perform the necessary controls to ensure that each batch of shrimp meets the following

Chemical	Tolerance Level in Edible Portion	Preferred Method of Analysis	Minimum Monitoring Frequency	Laboratory
Heavy Metals (To be determined)				
Aquaculture Drugs				
Nitrofurans (AH,SEM,AOZ, AMOZ)	Zero Tolerance	LC/MS/MS Modified FDA Method	Once a year	Third Party Lab
Chloramphenicol	Zero Tolerance	LC/MS/MS	Once a year	Third Party Lab
Tetracyclines and related antibiotics (oxyteatracycline, chlortetracycline)	Zero Tolerance	AOAC 995.09	Once a year	Third Party Lab
Floroquinolones (Enroflozacin, Ciprofloacin,Serafloxacin,Difloxain, Flumequine, Oxilinic acid)	Zero Tolerance	LC/MS/MS Modified LIB $4405	Once a year	Third Party Lab
Malachite Green and Gentian Violet (crystal violet)	Zero Tolerance	LC/MS/MS FDA method LIB #4395	Once a year	Third Party Lab
Pesticides and Other Contaminants				
Aldrin & Dieldrin	< 0.3 ppm	PAM I 301	Once a year	Third Party Lab
Chlordane	< 0.3 ppm		Once a year	Third Party Lab
Chlordecone	<0.3 ppm		Once a year	Third Party Lab
DDT, TDE & DDE	< 5 ppm	PAM I 301	Once a year	Third Party Lab
Heptachlor & Heptachlor Epoxide	< 0.3 ppm	PAM I 301	Once a year	Third Party Lab
Mirex	<0.1 ppm	PAM I 301	Once a year	Third Party Lab
PCBs (Aroclor 1254, Aroclor 1260)	< 2 ppm	Mod GC-ECD	Once a year	Third Party Lab
2, 4 – Dechlorophenoxyacetic acid	< 1.0 ppm		Once a year	Third Party Lab

Other Ingredients

Sodium Metabisulfite:

Functionality:

- To prevent melanosis or black spots in shrimp.

Requirements:

- Must be food grade (contains less than 10 ppm of heavy metals).
- Each batch of sodium metabisulfite purchased must be accompanied by a certificate of analysis to be kept on file for two years.

Usage:

Unless previously specified by the customer, our processing plant may use sodium metabisulfite in accordance with good manufacturing practices. The final residual level in the edible portion may not exceed 100 ppm of sulfur dioxide (SO_2).

Chemical	Tolerance	Preferred Method	Monitoring Frequency
Sodium Metabisulfite	$Na_2S_2O_5 \geq 98\%$	Certificate of analysis from supplier	Every lot purchased

1. Finished Product Information

A. **Products:** raw, shell-on block frozen shrimp (SO-Block)
B. **Net Weight:** Must comply with the net weight requested by the customer.

NET Weight Determination

The following method, AOAC Official Method 967.1, Net Contents of Frozen Seafood, must be used to determine the net weight:

1. **Apparatus**

(a) Balance. – Sensitive to 0.25 g or 0.01 oz.
(b) Sieves. – U.S. No. 8, 20 cm (8”) and 30cm (12”) diameter.

2. **Determination**

Place contents of individual package in wire mesh basket and immerse in ≥ 15 L (4 gal.) container of fresh H2O at 26 ± 3°C (80± 5°F) so that top of baskets extends above H2O level. Introduce H2O of same temperature at bottom of container at flow rate of 4-11 L (1-3 gal)/min. As soon as product thaws, as determinate by loss of rigidity, transfer all material to 30 cm (12”) (for package 450 g - 1lb) or 20 cm (8”) (for package ≤ 1lb) No.8 sieve, distributing evenly. Without shifting material on sieve, incline sieve to approximately 30 °C (12”) (for package 450 g – 1lb) or 20 cm (8”) (for package ≤ 1lb No.8 sieve, distributing evenly. Without shifting material on sieve, incline sieve to approximately 30°C from horizontal to facilitate drainage. Two minutes from placed on sieve, transfer product from previously weighed pan, and weigh. Weight so found minus weight of pan is drained weight product.

SIZE	COUNT TOLERANCE	UNIFORMITY TOLERANCE
21-25	**23 ± 1**	**1.35**
26-30	**28 ± 1**	**1.35**
31-35	**33 ± 1**	**1.35**
36-40	**38 ± 1**	**1.35**
41-50	**45 ± 2**	**1.4**
51-60	**55 ± 2**	**1.5**
61-70	**65 ± 2**	**1.5**
71-90	**80 ± 5**	**1.6**
91-110	**100 ± 5**	**1.6**

2. Finished Product Attributes

Physical Attributes	Tolerance	Monitoring Frequency	Laboratory
Broken or damaged tails	< 3% by wt.	Every Lot	Processing Plant Lab
Extraneous/foreign material	0% by wt.	Every Lot	Processing Plant Lab
Freezer burn/dehydration	Severe 0%- Slight 20% by wt.	Every Lot	Processing Plant Lab
Heat stress	Severe 0%-Slight 20% by wt.	Every Lot	Processing Plant Lab
Glaze %	200-250 ml per block	Every Lot	Processing Plant Lab
Molting Shrimp	< 5% by wt.	Every Lot	Processing Plant Lab
Soft Shell	< 15% by wt.	Every Lot	Processing Plant Lab
Pieces (< 5 segments)	< 3% by wt.	Every lot	Processing Plant Lab
Throat meat	< 3% by wt. (shall not be longer than the first segment or be discolored)	Every lot	Processing Plant Lab
Necrosis slight	< 5% by wt.	Every Lot	Processing Plant Lab
Melanosis on shell	Severe 0%- Mild 5% by wt.	Every Lot	Processing Plant Lab
Melanosis on meat	None	Every Lot	Processing Plant Lab
Total Defects	**< 20 %**		

Sensorial Attributes	Tolerance	Monitoring Frequency	Laboratory
Decomposition	None	Every Lot	Processing Plant Lab
Color	**A2-A3** Uniform color in the package.	Every Lot	Processing Plant Lab
Flavor	Salty, slightly sweet, typical shrimp flavor.	Every Lot	Processing Plant Lab
Odor	Typical shrimp aroma: briny, ocean like. No decomposition odors like, ammonia, fecal, putrid or rancid.	Every Lot	Processing Plant Lab
Texture	Firm, not rubbery, tough, or mushy when bitten)	Every Lot	Processing Plant Lab

4. **Finished Product Microbiological and Chemical Parameters**

Additives	Use	Tolerance	Laboratory
Sodium Metabisulfite	Permitted	< 100 ppm SO_2	Processing Plant Lab

Microbiological Parameters	Tolerance	Monitoring Frequency	Laboratory
Total Standard Plate Counts	≤500,000 cfu/g	Every lot	Processing Plant Lab
Coliforms	<1000 cfu/g	Every lot	Processing Plant Lab
E. coli	< 10 cfu/g	Every lot	Processing Plant Lab
Staphylococcus aureus (Coag +)	Negative	Every lot	Processing Plant Lab
Salmonella	Negative in 25g	Every lot	Processing Plant Lab

5. Product Shelf-life

Raw, shell-on, block frozen shrimp is expected to have a shelf-life of 24 months when stored at -18° C (0°F) or below.

6. Packaging Information

A. Master Packaging: Customer requirements
B. Inner Packaging: Customer requirements
C. Ingredient Labeling: Customer requirements
D. Allergens:

The following allergen(s) must be specified below the ingredient statement.

Does this Product Contain any of these Allergens or Is this product produced in a facility that also processes any of the following ingredients?	YES/NO	If YES, Please Specify
Milk and Milk By-products	No	
Eggs	No	
Legumes/Tree Nuts (soy, peanuts, walnuts, pecans, etc)	No	
Wheat	No	
Shellfish	Yes	Shrimp
Fish	No	

