**CERTIFICATE OF ANALYSIS**

**Report No.: 243**

**Report Generated Date: July 13th of 2019**

|  |  |  |  |
| --- | --- | --- | --- |
| Product | Quick Cooking Oats | Container No. | FDCU0351751.-DRYU9985678.-TLLU5451301. |
| Batch No. | MAR71757 | MFD | 04,15,17,18,19,20-06-2019 |
| Expiry Date/Best Before | 04,15,17,18,19,20-06-2020 | Date of dispatch | July 03rd of 2019 |
| Quantity | 78,00 Ton. | No. of bags | 3,120 Bags |
| Commercial Invoice | 3005 | Guide | 32753.-32835.-32873. |

**1.- Sensory & Physicochemical Characteristics (Day)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **Parameter** | **Marico spec** | **Test Results (Day)** | | | | | |
| **04-06-2019** | **15-06-2019** | **17-06-2019** | **18-06-2019** | **19-06-2019** | **20-06-2019** |
| 1 | Appearance | Independent flakes of uniform size | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** |
| 2 | Odor | Free from any objectionable odor, comparable to ref | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** |
| 3 | Taste of cooked product | Comparable to reference | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** | **Accepted** |
| 4 | Retention on ASTM 8 sieve | 65 – 80 % | **74.48%** | **77.43%** | **74.76%** | **79.49%** | **77.56%** | **77.00%** |
| Pass through ASTM 20 sieve | Max 6% | **1.76%** | **1.86%** | **2.46%** | **1.72%** | **1.89%** | **1.77%** |
| 5 | Enzyme Activity | Nil (Peroxidase Negative) | **Negative** | **Negative** | **Negative** | **Negative** | **Negative** | **Negative** |
| 6 | Flake Thickness/mm | 0.45 – 0.60 | **0.54 mm** | **0.56 mm** | **0.54 mm** | **0.53 mm** | **0.56 mm** | **0.51 mm** |
| 7 | Bulk Density/ g/cc | 0.3 - 0.4 | **30.36 g/cc** | **34.78 g/cc** | **32.89 g/cc** | **33.90 g/cc** | **35.67 g/cc** | **33.39 g/cc** |
| 8 | Husk (nos) Units/100 grams | Max 3 per 100 g | **1 unit** | **0 unit** | **1 unit** | **0 unit** | **0 unit** | **0 unit** |
| 9 | Slivers (nos) Units /100 grams | Max 5 per 100 g | **0 unit** | **0 unit** | **0 unit** | **1 unit** | **0 unit** | **0 unit** |
| 10 | Charred Flakes (nos) Units/100 grams | Max 3 per 100 g | **0 unit** | **0 unit** | **0 unit** | **0 unit** | **0 unit** | **0 unit** |
| 11 | Discolored Flakes (nos) Units/100 grams | Max 10 per 100 g | **0 unit** | **0 unit** | **0 unit** | **0 unit** | **0 unit** | **0 unit** |
| 12 | Gelatinized Flakes(nos) Units/100 grams | Max 10 per 100 g | **0 unit** | **2 units** | **3 units** | **2 units** | **4 units** | **2 units** |
| 13 | Unrolled Groats (nos) Units/100 grams | Max 1 per 100 g | **0 unit** | **0 unit** | **0 unit** | **0 unit** | **0 unit** | **0 unit** |
| 14 | Foreign Edible Grain (Wheat, Barley etc ) Units/100 grams | Max 10 per 100 g | **1 unit** | **2 units** | **3 units** | **1 unit** | **2 units** | **5 units** |
| 15 | Weed Seeds (nos)  Units/100 grams | Max 5 per 100 g | **1 unit** | **1 unit** | **2 units** | **0 unit** | **1 unit** | **1 unit** |
| 16 | Foreign Material | Free from all objectionable hazardous foreign material and substances (like glass, metal etc) | **Absence** | **Absence** | **Absence** | **Absence** | **Absence** | **Absence** |
| 17 | Moisture, % by weight | Max 9.5 | **7.75%** | **8.19%** | **8.06%** | **8.57%** | **7.93%** | **8.50%** |
| ***18*** | ***Total Ash (Dry)*** | ***1.9% Max*** | ***-*** | ***-*** | ***-*** | ***-*** | ***-*** | ***-*** |

**2.- Microbiological Characteristics: (Once in 6 months) (parámetros microbiológicos)**

|  |  |  |  |
| --- | --- | --- | --- |
| **2** | **Parameter** | **Spec** | **Results** |
| **2.1** | Total Viable Count (cfu/g) | Max 10000 | - |
| **2.2** | *E. coli* (cfu/g) | Absent | **-** |
| **2.3** | *Salmonella* | Absent | - |
| **2.4** | Yeast & Mold (cfu/g) | Max 300 | **-** |
| **2.5** | Coliform/g | Max 100 | **-** |

**3.-Nutritional & Chemical Characteristics (Once in 6 months except Protein which is every 20th cont.) (param. Químicos)**

|  |  |  |  |
| --- | --- | --- | --- |
| **3** | **Parameter** | **Spec** | **Results** |
| **3.1** | Protein (6.25 conversion factor) | 11.25% Min | 12.3% |
| **3.2** | Crude Fiber | 2.0 % Max | 1.69% |
| **3.3** | Fat | 8.5 % Max | 8.6 % |
| **3.4** | Acid insoluble Ash | 0.1% Max | 0 |
| **3.5** | Alcohol Acidity | Shall be less than 5ml of 1N NaOH per 100g of dried substance | - |
| **3.6** | Beta Glucan | Min 4.3 | 3.8% |
| **3.7** | Uric Acid | Max 100 | - |

**Test Conducted by**

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**Lab Chemist**

**Test Approved by**

**……………………………………………………**

**Senior Lab Chemist / QA Manager**