

## Coarse Bulgur wheat

### 1. SPECIFICATIONS:

The Coarse Bulgur are to be in accordance with the following specifications:

**General description of coarse bulgur:** It should be distinguished by the natural color of bulgur, free from mold, strange smell and taste. It shall be free from living and dead insects, and their parts and all their stages and their residues. It should be free from impurities and foreign materials. It is not permitted to make the bulgur with a mixture of wheat (coarse and hard). The product shall meet the testing requirements stated in this document.

| Parameter                         | Requirements                             | Reference methods (or equivalent)                  |
|-----------------------------------|------------------------------------------|----------------------------------------------------|
| Size                              | 2.0 mm min.                              |                                                    |
| Organoleptic                      | natural color, smell and taste of bulgur | Organoleptic examination                           |
| Ungelatinized particles           | 1% max. (by weight)                      | Chang and Johnson, Cereal Chemistry 54, 1977       |
| Impurities                        | 0.1% max. (by weight)                    | Visual examination                                 |
| Scorched particles                | 0.2% max. (by weight)                    | Visual examination or equivalent validated methods |
| Moisture                          | (13) % max.                              | ISO 712                                            |
| Scorched kernel (whole, or parts) | 0.2% max. (by weight)                    | Visual examination                                 |
| Protein                           | Min. 9.3% (by weight, on dry basis)      | ISO 20483                                          |
| Crude fiber                       | 2.3 % max. (by weight on dry basis)      | AOAC 962.09                                        |
| The total ash                     | 1.75 % max.                              | ISO 2171                                           |
| Insoluble ash in the acid         | 0.3 %. max.                              | ISO 5985                                           |

|                             |                   |              |
|-----------------------------|-------------------|--------------|
| Aerobic mesophilic bacteria | 10,000 cfu/g max. | ICC No 125   |
| Coliforms                   | 100 cfu/g max.    | AACC 42-11   |
| Salmonella                  | 0 cfu/25g         | AOAC 2005.03 |
| Escherichia Coli            | <10 cfu/g         | AACC 42-25B  |
| Yeasts and moulds           | 1,000 cfu/g max.  | ICC No 146   |

\* N.B.: The food commodity must not be derived from biotechnology. Suppliers must ensure that food commodities are brought in from countries whose health status allows this

## 2. **TECHNICAL DOCUMENT REQUIREMENTS:**

When required, suppliers shall submit a Certificate of Analysis of the final product to UNRWA, along with other documents.

## 3. **PRODUCT SAFETY:**

- The product shall not contain any harmful substances including, but not limited to, micro-organisms, heavy metals, pesticides, mycotoxin, foreign matter or anti-nutritional factors, in amounts that may represent a hazard to health. Where there is no applicable standard available, The Joint FAO/WHO Expert Committee on Food Additives (JECFA) and The European Food Safety Authority (EFSA) evaluations shall be considered for guidance limits.
- Fit for human consumption guarantee: Suppliers shall manage the quality of their product and guarantee that the product is 'fit for human consumption' and in line with TIC Council/IFIA Guidelines.
- The product shall comply strictly with Codex General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995), Codex Maximum Residue Limits (MRLs) and Codex Extraneous Maximum Residue Limits (EMRLs) for Pesticides and Guidelines of International Commission on Microbiological Specifications for Foods.
- The product shall be free from toxic or noxious seeds in amounts which may represent a hazard to human health. This includes Crotonia (Crotonia spp.), Corn cockle (Agrostemma githago L.), Castor bean (Ricinus communis L.), Jimson weed (Datura spp.), and other seeds that are commonly recognized as harmful to health. A non-exhaustive list of these seeds can be found in ISO 7970.
- Supply food stuff from producers or companies registered in white list of NFSA ( NATIONAL FOOD SAFETY AUTHORITY ).

## 4. **Food safety and quality management at manufacturing premises**

- The manufacturer shall be able to demonstrate by principle and practice the adoption, implementation and recording of:
  - Good Manufacturing Practices (GMPs)
  - Good Hygiene Practices (GHPs)
  - Hazard Analysis Critical Control Point Program (HACCP)

- Global Food Safety Initiative (GFSI) scheme principles
- In this context an appointed UNRWA staff/Quantity & Quality Inspector/Surveyor/Auditor is entitled to visit the factory without prior notice during any period when UNRWA product is being manufactured to check that production is done as per UNRWA contract specifications.
- The UNRWA staff/Inspector/Surveyor/Auditors may examine any aspect of Supplier's manufacturing premises and its documentation relating to any products or services provided to UNRWA, including but not limited to production facilities, procedures, records, certifications, or practices.
- Food suppliers shall notify UNRWA immediately of lots (pre-delivery and post-delivery) that fail to meet contract requirements. Any testing on food safety parameters for foods (and/or the associated raw materials) delivered to UNRWA shall be pre-agreed with UNRWA.
- The producer shall be authorized by competent governmental authorities to process products for human consumption and to export. The authorization of export is only required when the producer supplies UNRWA internationally.

## 5. **PACKGING:**

- Bulgur should be packed in bags that characterized by:
- It is made of non-toxic materials that do not affect the taste, color and aroma of bulgur.
- It is durable, clean and dry to prevent external aggressions from affecting the product.
- It is free from foreign odors and provides the necessary protection for the product from insects and pollution.
- It preserves the healthy, nutritional, technical and sensory properties of the product.
- Bags of finished product and secondary packaging (such as cartons, bag bags..., containing required units, if applicable) must pass the drop test (after each drop, there shall be no rupture or loss of contents) following appropriate standards.
- For the bags made from thermoplastic flexible film, the principles of drop test standard such as EN 277, ISO 7965-2 (or equivalent) can be applied with following specific sequence:
  - Butt dropping: Bag is dropped from a height of 1.20 m on the bottom and the top of the bag.
  - Flat dropping: Bag is dropped from a height of 1.60 m twice on one flat face and twice on the opposite flat face.
- If required in the contract, two percent marked packaging (included in the price) must be sent with the lot.
- Note: For shipping containers, unless otherwise specified in the contract, kraft paper must be adhered to all internal sides, door, and floor of container. Kraft paper also need to be placed on the top of packaging. Desiccant needs to be placed/laid in container as appropriate location in order to absorb moisture. Supplier needs to use high quality desiccant and calculate the quantity of desiccant based on: Efficiency of desiccant, & Length of time in transit in con.

\*UNIT OF PACKING AS AGREED IN CONTRACT

**6. STORING:**

- The product must be traded under conditions that preserve its quality during transportation, storage and distribution until the time of the final sale.
- the ventilation should be organized in a way that ensures that it is good in dry periods and can be stopped permanently in wet periods.
- It must be away from sources of heat, humidity, pollution factors, and foreign odors.
- To be protected from the entry of insects and rodents.
- To meet all health conditions.
- It should not have been previously used for transporting or storing pesticides of any toxic or harmful substances.

**7. MARKING:** SEE ATTACHED SPECIAL CONDITIONS OF CONTRACT.  
All the above specifications will be strictly adhered at Field level.

**7. SHELF LIFE:**

The product shall have a minimum of 80% of shelf-life remaining when presented to UNRWA for inspection, unless otherwise authorized by UNRWA.

The expiry date should be at least 12 months after the date of delivery.