



Technical Specifications

Couscous

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1. SCOPE

The term “couscous” refers to processed couscous semolina destined for direct human consumption. Couscous is culturally well-accepted by populations living in North Africa and Middle East and is sometimes prepared without cooking by consumers.

1.1 Product description

This specification refers to couscous semolina prepared from and only from wheat flour/semolina (the elements of which are bound by adding potable water and which has undergone physical treatment such as cooking and drying).

1.2 Standards and recommendations

Couscous manufacturer must be registered by national authorities as a processor of foods for human consumption.

Couscous must be manufactured in accordance with:

- National authority’s requirements at the origin country
- National authority’s requirements at the recipient country
- Good Manufacturing Practices (GMP) of food products.
- “Recommended International Code of Practice: General Principles of Food Hygiene (CAC/RCP 1-1969)”
- CAC/RCP 1-1969 Rev 3 1997 Amended (1999) including Annex “Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for its application”
- Food Safety Management System; ISO 22000

2. RAW MATERIALS

Couscous must be prepared from wheat flour conform to Codex Standard 152-1985 and must be free from abnormal flavours, odours, and living insects and free from filth (impurities of animal origin, including dead insects).

In addition, if durum is required in the contractual agreement couscous must be made only from durum wheat semolina conform to Codex Standard 178-1991.

3. PROCESSING

All processes applied to materials used for the production of couscous must be carried out with no effect in the limit of nutritive value and avoid undesirable modification of properties of couscous; the manufacturing procedures including: Mixing, Sorting, Cooking, crushing, steaming, packaging and storing

4. PRODUCT SPECIFICATIONS

4.1 Kernel size

The size of kernel and semolina proportions in the mixture must respect contract requirements.

Table 1: Couscous semolina kernel size

Kernel/semolina size	Requirement : 100% between
Fine Semolina	130 – 183 microns
Medium semolina	130 – 700 microns
Course semolina	475 – 700 microns

4.2 Physical and organoleptic requirements:

The physical requirements must be comply with the following requirements:

Table 2: Physical and organoleptic requirements

Parameter	Requirement
Moisture	Maximum: 13.5%
Ash	Maximum: 1.1%
Swelling ratio	Minimum: 2 after 60 minutes in water at 25°C
Appearance	Homogeneous golden yellow kernel, free from abnormalities and foreign matters.
Taste	Typical taste without off flavors
Smell	Typical smell without foreign odors

4.3 Contaminants

Couscous must be free from objectionable matter; free from micro-organisms in amounts which may represent a hazard to health; not contain any substances originating from micro-organisms or any other poisonous or deleterious substances such as residues of hormones, antibiotics, pharmacologically active substances, anti-nutritional factors, heavy metals or pesticide residues, in amounts which may represent a hazard to health of the specific population group for which they are intended

Couscous must also respect table 3 requirement.

Table 3: microorganisms and toxins limits to be used for monitoring purposes

Features	Maximum level
Yeast and mold	100 CFU/g
Total Plate Count	10,000 CFU/g
Ochratoxin	5 µg/kg

4.3.4 ADDITIONAL REQUIREMENTS

Shelf life: it must retain normal taste for at least 12 (twelve) months from date of manufacture when stored dry at ambient temperatures (up to 30 C and 75% relative humidity).

Radiation: Free from radioactivity.

5. PACKAGING

In any case the packaging type and net weight must respect contract requirement.

Recommended packaging for **couscous** is either 5 to 25 kg bags or 20 times 1 kg pack in a carton. In any case couscous must be packed in packets which will ensure shelf life as well as hygiene and quality of the product after multiple manual handling.

Any packaging material must be made of safe substances, suitable for conservation,

Cartons if applicable must be new, strong, manufactured from well-constructed double walled corrugated board with a edge crush resistance of 11 kN/m (61 pounds per inch) and a specific weight of 700 to 800 grams per square meter, must be used

6. MARKING

Every packaging (bags, packages, cartons) must be labelled with:

- Name of the product: **Couscous**.
- Net content: -- kg.
- Nutrition information.
- Storage instruction : keep in a cool and dry place
- Best before date. (ink jet typically)
- Lot identification (ink jet typically)
- Name and address of the supplier (including country of origin).
- Not For Sale
- WFP logo + World Food Programme
- Additional marking as per contractual agreement.

7. COMPULSORY REQUIREMENTS

The principal analyses-tests in table 4 must be performed in order to check if the quality of **Couscous** meets above requirements. Additional analyses must be defined in case of further quality assessment or according to the national authority's requirements at the recipient country.

Table 4: List of compulsory analyses-tests and reference methods

No	Analyses- Tests	Requirements	Method of analysis
1	Organoleptic criteria	<ul style="list-style-type: none">- Homogeneous golden yellow kernel, free from abnormalities and foreign matters.- Typical taste without off flavors- Typical smell without foreign odors	
2	Moisture	Maximum 13.5 % w/w	ISO 712:2009
3	Swelling ratio	Minimum 2	Weight after swelling during 60 minutes in water at 25°C / weight before swelling
4	Ash	Maximum 1.1% w/w	ISO 2171:2007
5	Total Plate Count	10,000 CFU/g	
6	Yeast and mold	100 CFU/g	