Technical Specifications for

RICE- Brokens 5 % for Syria

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1. SCOPE

This specification is applied for milled white **Rice – Brokens 5%** that WFP purchases and distributes to beneficiaries in Syria.

2. DEFINITION

Rice: is the whole kernels obtained from the species of rice (ORZYA, SATIVA)

Paddy: means rice that is not yet dehusked.

Husked rice: (Brown Rice or Cargo Rice): is rice from which the external husks have been removed through the process of husking, handling and boiling, which may result in partial loss of the bran, and is known as Cargo Rice.

White rice (full husking): is husked rice from which the bran layers and germ have been removed through a process of threshing, and is classified according to its degree of whiteness into the following:

- Partially white rice: is rice from which the external husk, some of the layers of the internal husk and most of the bran have been removed, and its kernels are tainted with a brown colour.
- Fully white rice: is rice resulting after the removal of the external husk, layers of the internal husk and most of the bran.

Extraneous matters: are the organic and in-organic components other than rice, and they include:

- Extraneous Organic Matters: such as foreign (objectionable) seeds, husks, dietary fiber, fragments of straw and paddy rice etc.
- In-organic Extraneous Matters: such as stones, sand, soil, metal and all other impurities.

Part of rice kernels: means each part of the whole kernel that is divided lengthwise in to 10 equal parts.

Damaged kernels: are whole kernels showing obvious deterioration due to moisture, temperature, insects, diseases or other factors such as rotten rice.

Yellow kernels (Heat damaged kernels): are whole kernels which have been affected by an increase of moisture and temperature, causing the colour to change from its natural state to yellow, and these kernels are considered among the damaged kernels percentage.

Red kernels: are whole kernels whose natural colour is red provided that the red colour covers more than 1/4 of the surface of the kernel, or in which there are red streaks.

Immature kernels: are safe whole kernels whose size is less than that of normal kernels (non-ripe) or whole kernels with a greenish colour.

Chalky kernels: are safe whole kernels with half or more of its surface being an opaque white, and whose appearance is chalky with the exception of glutinous rice.

Broken rice: is a part of the kernel the size of which is less than 3/4 of the normal safe kernel.

Dead insect calculation: When calculating the ratio of dead insects, more than half of an insect or every two main parts of the insect (for example the head and chest), is considered to be one dead insect.

Well milled is the removal of bran entirely to the extent that the rice kernel has a beautiful appearance.

3. REFERENCE

Codex standard for rice CODEX STAN 198-1995
Syria standard for rice, S.N.S 319/1995
Thai Rice Standards, 1997
Vietnam White Rice Standards, TCVN 5644:2008 and TCVN 5643:1999

4. SPECIFICATION

4.1 General requirements

Rice shall be fresh, free from abnormal flavours, odours and live insects.

4.2 Specific requirements

Rice must also comply with other requirements specified in table 1.

4.3 Contaminants

4.3.1 Heavy metals

The products covered by the provisions of this standard shall be free from heavy metals in amounts which may represent a hazard to human health.

4.3.2 Pesticide residues

Rice shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

4.3.3 Mycotoxins

Rice must not contain more than 5.0 ppb Ochratoxin A.

4.4 Hygiene

4.4.1 It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *Recommended International Code of Practice – General Principles of Food Hygiene* (CAC/RCP 1-1969), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to this product.

4.4.2 To the extent possible in good manufacturing practice, the product shall be free from objectionable matter.

4.4.3 When tested by appropriate methods of sampling and examination, the product:

– shall be free from micro-organisms in amounts which may represent a hazard to health;

– shall be free from parasites which may represent a hazard to health; and

– shall not contain any substance originating from micro-organisms, including fungi, in amounts which may represent a hazard to health.

5. PACKAGING AND MARKING

The below requirements are only applied for purchases of **Rice** packed in bags.

5.1 Packaging

Bags for **Rice** must comply with below requirements:

- Bags is made of woven polypropylene (PP) are to be given special food grade "ultraviolet" treatment.
- Bags have a heat cut mouth to prevent fibrillation and have sewn single folder bottom.
- Bags must be closed by double stitching with suitable thread.
- Bags must be clean, sound and free from insect, fungal infestation.
- Bags must be new, uniform, strong, fit for export and multiple handing.
- Construction of fabric must be solid to sustain harsh handling.
- The bags of finished product must pass the drop test (after each drop, there shall be no rupture or loss of contents) following the principles of the drop test standard (EN 277, ISO 7965-2 or equivalent) with following sequence:

+ Butt dropping: Bag is dropped from a height of 1.20m on the bottom and the top of the bag.

+ Flat dropping: Bag is dropped from a height of 1.60m twice on one flat face and twice on the opposite flat face.

Two percent marked bags (included in the price) must be sent with the lot.

5.2 Marking

Below information must be printed on the bags:

- Name of the product
- Net weight
- Name of supplier
- Additional marking as per contractual agreement

6. ANALYTICAL REQUIREMENTS

The principal tests in table 1 must be performed in order to check if the quality of the **Rice** meets above requirements. Additional analyses shall be defined in case of further quality assessment is required.

Table 1: List of compulsory tests and reference method

No	**Tests**	**Requirements**	**Reference method** *(or equivalent)*
1	Moisture	Max. **14.0 %**	ISO 7301
2	Protein content	Min **7.0 %**	ISO 7301
3	Ash content (total ash)	Max. **0.5 %**	ISO 7301
4	Damaged and yellow kernels	Max. **0.45 %**	ISO 7301
5	Rotten kernels	Max. **0.5 %**	ISO 7301
6	Unripe and red kernels	Max. **2.0 %**	ISO 7301
7	Chalky kernels	Max. **3.0 %**	ISO 7301
8	Broken kernels	Max. **5.0 %**	ISO 7301
9	Paddy kernels	Max. **0.01 %**	ISO 7301
10	Extraneous matter	Max. **0.15 %**	ISO 7301
11	Dead insect (in part or whole)	Max. **30 per 100kg**	ISO 7301
12	Live insect	**Nil**	ISO 7301
13	Arsenic (inorganic)	Max.**0.2** ppm	AOAC 986.15
14	Cadmium	Max.**0.4** ppm	AOAC 999.10
15	Pesticide residues	**Showed at: http://www.codexalimentarius.net/pestres/ data/commodities/details.html?id=158**	EU 15662
16	Phoxim	**0.01** mg/kg	
17	Methyl bromide	**0.01** mg/kg	
18	Ochratoxin A	Max. **5.0** ppb	AOAC 2000.3
19	Milling degree	**Well milled**	ISO 7301
20	Organoleptic quality	**Natural odour, colour, bright appearance**	Visual inspection
21	Average kernel length (*only if required*)	**As per contractual agreement**	