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Rice flour — Specification



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Foreword

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- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of key stakeholders including government, academia, consumer groups, private sector and other interested parties.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

The committee responsible for this document is Technical Committee UNBS/TC 2, *food and agriculture*, Subcommittee SC3, *cereal. Pulses and related products*

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Rice flour — Specification

1 Scope

This Draft Uganda standard specifies the requirements, sampling and test methods for rice flour from *Oryza sativa* L for human consumption.

2 Normative references

The following referenced documents referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EAS 900,

US EAS 38, *General standard for labelling of pre-packaged foods*

US EAS 39, *Code of practice for hygiene in the food and drink manufacturing industry*

US 98, *Cereals and cereal products — Determination of moisture content — Routine method*

US 45, *General standards for food additives*

US ISO 16050, *Foodstuffs -- Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products -- High-performance liquid chromatographic method*

US EAS 803, *Nutrition labelling— Requirements*

US EAS 804, *Claims— General requirements*

US EAS 805, *Use of nutrition and health claims— Requirements*

US ISO 4831, *Microbiology of food and animal feeding stuffs —Horizontal method for the detection and enumeration of coliforms — Most probable number technique*

US ISO 6579, *Microbiology of food and animal feeding stuffs -- Horizontal method for the detection of Salmonella spp.*

US ISO 7251, *Microbiology of food and animal feeding stuffs -- Horizontal method for the detection and enumeration of presumptive Escherichia coli -- Most probable number technique*US

US ISO 1871, *Agricultural food products — General directions for the determination of nitrogen by the Kjeldahl Method*

US ISO 712 *Cereals and cereal products -- Determination of moisture content -- Reference method*

US ISO 2171:2007, *Cereals, pulses and by-products - Determination of ash yield by incineration*

US ISO 5985, *Animal feeding stuffs -- Determination of ash insoluble in hydrochloric acid*

US ISO 20483, *Cereals and pulses -- Determination of the nitrogen content and calculation of the crude protein content -- Kjeldahl method*

US ISO 11085, Cereals, cereals-based products and animal feeding stuffs -- Determination of crude fat and total fat content by the Randall extraction method

US ISO 7305, Milled cereal products -- Determination of fat acidity

US ISO 6633, Fruits, vegetables and derived products - Determination of lead content Flameless atomic absorption spectrometric method

US ISO 6561-1, Fruits, vegetables and derived products - Determination of cadmium content Part 1: Method using graphite furnace atomic absorption spectrometry

US ISO 6561-2:2005, Fruits, vegetables and derived products - Determination of cadmium content Part 2: Method using flame atomic absorption spectrometry

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 foreign matter

any organic or inorganic matter other than rice flour

3.2 foreign odour

foreign to the relevant rice flour and which, because of their presence, render the flour unfit for their normal usage

3.3 insect infestation

the presence of insects (live or dead) and any of their developmental stages

3.4 filth

impurities of animal origin e.g. animal droppings, hairs and others

4 Requirements

4.1 General requirements

Rice flour shall;

- a) be the product obtained by grinding cleaned rice conforming to US EAS 128;
- b) be fine and free flowing;
- c) have an appearance and flavor characteristic of the milled rice;
- d) free from foreign matter;

e) be free from rancid or other objectionable tastes and foreign odour, insect or fungal growth and insect infestation

4.2 Specific requirements

Rice flour shall conform to the specific requirements when tested with the methods stated in table 1 below

Table 1: specific requirements for rice flour

s/n	Parameter	Requirement	Method of test
1	Moisture, by mass, %, max.	13	US ISO 712
2	Total ash, on dry matter basis, % mass, max.	1.0	US ISO 2171
3	Acid insoluble ash(dry basis), % mass, max.	0.1	US ISO 5985
4	Protein, dry matter basis, % mass.	5.0 – 9.0	US ISO 20483
5	Total fat, dry matter basis, % mass.	0.5 -1.0	US ISO 11085
6	Fat acidity, mg KOH per 100 g of product, on dry mass basis, max.	80	US ISO 7305

5 Food additives

Only the food additives permitted in US 45 standard for food additives may be used.

6 Contamination

6.1 Pesticide

Rice flour shall comply with those maximum pesticide residue limits established by CODEX Alimentarius commission for similar commodities.

6.2 Heavy metals

Rice flour shall conform to comply with the heavy metal limits in Table 2 when tested in accordance with test methods specified therein those maximum limits for heavy metals established by the Codex Alimentarius Commission as specified in Table 2.

Table 2 — Heavy metals limits for rice flour

S/No	Heavy metal	Limits (mg/kg), max	Test methods
i)	Arsenic(As)	0.1	ISO 27085
ii)	Lead (Pb)	0.2	ISO 6633
iii)	Cadmium (Cd)	0.1	ISO 6561-1 /ISO 6561-2

6.3 Aflatoxin

The maximum content of aflatoxins in rice flour when determined in accordance with the method described in US ISO 16050 shall not exceed 5 µg/kg (ppb) for aflatoxin B and 10 µg/kg for total aflatoxins.

7 Hygiene

7.1 Rice flour shall be produced, prepared and handled in accordance with the provisions of appropriate sections of US EAS 39.

7.2 Rice flour shall conform to the microbial limits stated in table 2:

s/n	Requirement	Limits	Test method
1	Total plate count, cfu/m	10 ⁵	US ISO 4833-1
2	E.coli count per g, Max	Absent	US ISO 11866,
3	Salmonella sp.	Absent	US ISO 6785
4	Yeast and mould count per g, max	10 ⁴	US ISO 661

8 Packaging

Rice flour shall be packaged in food grade containers which will safeguard the hygienic, nutritional, and organoleptic qualities of the product.

9 Labelling

In addition to the requirements in US EAS 38, each package shall be legibly and indelibly labelled with the following:

- i. The name of the product shall be "Rice flour";
- ii. Brand name/trade name;
- iii. The name and physical address of the manufacturer;
- iv. Lot identification;
- v. batch/code number Net;
- vi. weight in metric units;
- vii. list of any additives used;
- viii. Date of manufacture;
- ix. Country of origin;
- x. Storage conditions;
- xi. Expiry date/best before date.

9.2 Nutrition labelling

The amount of micronutrients in the rice flour shall be declared on the label in accordance with US EAS 803.

9.3 Nutrition and health claims

Rice flour may have claims on the importance of the micronutrients in nutrition and health. Such claims when declared shall be consistent with US EAS 804 and US EAS 805.

10 Sampling

Methods of sampling of rice flour shall be accordance with US EAS 900

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Bibliography

- [1] US EAS 782: 2012, Composite flour — Specification
- [2] Food Standards Regulation, Division - Cereals, pulses, legumes and derived products
And Vegetable Proteins.

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