Rice flour — Specification
Compliance with this standard does not, of itself confer immunity from legal obligations

A Uganda Standard does not purport to include all necessary provisions of a contract. Users are responsible for its correct application.
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
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 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


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

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

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

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

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:

<table>
<thead>
<tr>
<th>s/n</th>
<th>Requirement</th>
<th>Limits</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total plate count, cfu/m</td>
<td>$10^5$</td>
<td>US ISO 4833-1</td>
</tr>
<tr>
<td>2</td>
<td>E.coli count per g, Max</td>
<td>Absent</td>
<td>US ISO 11866,</td>
</tr>
<tr>
<td>3</td>
<td>Salmonella sp.</td>
<td>Absent</td>
<td>US ISO 6785</td>
</tr>
<tr>
<td>4</td>
<td>Yeast and mould count per g, max</td>
<td>$10^4$</td>
<td>US ISO 661</td>
</tr>
</tbody>
</table>

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
Bibliography


[2] Food Standards Regulation, Division - Cereals, pulses, legumes and derived products
And Vegetable Proteins.
Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

The use of the UNBS Certification Mark is governed by the Standards Act, and the Regulations made thereunder. This mark can be used only by those licensed under the certification mark scheme operated by the Uganda National Bureau of Standards and in conjunction with the relevant Uganda Standard. The presence of this mark on a product or in relation to a product is an assurance that the goods comply with the requirements of that standard under a system of supervision, control and testing in accordance with the certification mark scheme of the Uganda National Bureau of Standards. UNBS marked products are continually checked by UNBS for conformity to that standard.

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