AFDC16 (1825) DTZS
ICS: 67.00

DRAFT TANZANIA STANDARD

Roasted soybean flour — Specification

TANZANIA BUREAU OF STANDARDS

First Edition 2023

AFDC16 (1825) DTZS
ICS: 67.00

First Edition 2023

AFDC16 (1825) DTZS
ICS: 67.00

Roasted soybean flour — Specification

0. Scope

This Draft Tanzania Standard specifies the requirements, sampling and test methods for roasted soybean flour made from varieties (cultivars) of soyabean (*Glycine max* (L.) *Merr.)* intended for human consumption

1. Normative references

The following documents are 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.

TZS109, *General principles of food hygiene*

CODEX STAN 192, *General standard for food additives*

TZS 538*, Labelling of Pre-packaged Foods —General requirements*

TZS 1083, *Dry soybeans — Specification*

TZS 331, Cereals and Pulses – test method

TZS 799, *Foodstuffs — Determination of aflatoxin B1 and the total content of aflatoxins B1, B2, G1 andG2 in cereals, nuts and derived products — High-performance liquid chromatographic method*

TZS 730, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

TZS 131, *Microbiology of food and animal feedstuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

TZS 118*, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 degrees C by the pour plate technique*

TZS 122-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

3.0 Terms and definitions

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

3.1

roasted soybean flour

flour produced from dry soybean which have been roasted and ground to flour

3.2

soybean

mature dry grains of variety grown from *Glycine max* (L.) *Merr*

3.3

food grade packaging material

packaging material made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

4.0 Requirements

4.1 Ingredients

4.1.1 Essential ingredient

Roasted soybean flour shall be prepared from soybeans complying with TZS 762.

4.1.2 Optional ingredients

The following optional ingredients including but not limited to the following may be used in roasted soybean flour and shall comply with relevant standards

a) Salt complying with TZS 132; and

b) Spices.

4.2 General requirements

Roasted soybean flour shall:

be of colour characteristic of the variety of the roasted soybean used;

be free from off flavours and odours;

be free from extraneous and foreign matter; and

be free from live insect and filth.

4.3 Specific requirements

Roasted soybean flour shall comply with the specific requirements stipulated in Table 1 when tested in accordance with test methods specified therein.

Table 1 — Specific requirements for roasted soybean flour

S/N	Characteristic	Requirement	Test method
i.	Moisture content , %, m/m, max.	7.0	TZS 331
ii.	Crude Protein (N x 6.25), %, m/m, min.	35.0	
iii.	Crude fibre, % m/m, max.	6.0	
iv.	oil content (on dry basis), %, m/m, max.	25	
v.	Fat acidity, mg KOH/100 g, max.	80	
vi.	Total ash, %,m/m max.	4	
vii.	Acid insoluble ash, %, m/m, max.	0.40	

4.4 Anti-nutritional factors

The urease activity in the roasted soybean flour shall not exceed 0.3 mg N/g/min andfor trypsin inhibitor activity, 5 mg/g when tested in accordance with TZS ISO 5506 and TZS ISO 14902

4.5 Particle size

Not less than 90 % shall pass through a 600µm sieve for fine flour and not less than 90 % shall pass through a 1000µm sieve for coarse flour.

5.0 Hygiene

5.1 Roasted soybean flour shall be prepared and handled in accordance with TZS 109.

5.2 Roasted soybean flour shall comply with the microbiological limits stipulated in Table 2 when tested in accordance with the test methods specified therein.

Table 2 — Microbiological limits for roasted soybean flour

S/N	Microorganism	Maximum limit	Test method
i.	Total Viable Count, CFU/g	10^4	TZS 118/ISO 4833-1
ii.	*Escherichia coli*, CFU/g	Absent	TZS 130/ ISO 16649-2
iii.	*Salmonella spp*, in 25g	Absent	TZS 122 /ISO 6579-1
iv.	Yeasts and moulds, CFU/g	10^3	TZS 125/ISO 21527-2

6.0 Food additives

Food additives which may be used in roasted soybean flour shall comply with CODEX STAN 192.

7.0 Contaminants

7.1 Pesticide residues

Roasted soybean flour shall comply with those maximum pesticide and veterinary drug residue limits established by Codex Alimentarius Commission

7.2 Heavy metals

When tested in accordance with appropriate test methods roasted soybean flour shall not contain heavy metal contaminants in amounts which exceed those specified in Table 3 when tested in accordance with test methods specified therein.

Table 3 — Heavy metal limits in roasted soybean flour

S/N	Heavy metals	Maximum limit (mg/kg)	Test method
i.	Lead	0.2	AOAC 999.11
ii.	Cadmium	0.1	

7.3 Aflatoxins

Roasted soybean flour shall comply with the aflatoxin levels specified in Table 4 when tested in accordance with test methods specified therein.

Table 4 — Aflatoxin limits for roasted soybean flour

S/N	Type of aflatoxin	Maximum limit (µg/kg)	Test method
i.	Total aflatoxins	10	TZS 799/ISO 16050
ii.	Aflatoxin B1	5	

8.0 Packaging

Roasted soybean flour shall be shall be packaged in food grade packaging materials that do not affect the quality of the product.

9.0 Labelling

In addition to the requirements specified in TZS 538, each pack of Roasted soybean flour shall be legibly and indelibly marked with the following:

a) name of the product shall be ‘Roasted soybean flour’; accompanied by whether “fine flour” or “Coarse flour”;

b) name and address of the manufacturer/packer/distributor/ importer/exporter/vendor;

c) list of ingredients in descending order;

d) food additives used;

e) batch number;

f) net content shall be declared in the metric system;

g) date of manufacture;

h) expiry date;

i) country of origin;

j) instructions for use;

k) storage conditions;

l) instructions for use; and

m) the statement ‘Human Food’ shall appear on the package.

n) Declaration allergens

10. Sampling

Sampling shall be done in accordance with TZS 330.

AFDC16 (1825) DTZS
ICS: 67.00

First Edition 2023

AFDC16 (1825) DTZS
ICS: 67.00

First Edition 2023