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Food Safety and Standards Authority of India

(A statutory Authority established under the Food Safety and Standards Act, 2006)

(Quality Assurance Division)

FDA Bhawan, Kotla Road, New Delhi - 110002

Dated, the 21st June, 2018

ORDER

**Subject: Approved methods of analysis of Cereal & Cereal Products -
reg.**

The methods of analysis of certain parameters of some of the commodities under cereal and cereal product category have been approved by the Competent Authority and are enclosed.

2. The food testing laboratories shall use these methods, with immediate effect.

Encl: Methods



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**METHODS OF ANALYSIS OF PARAMETERS OF NEW COMMODITIES UNDER CEREAL
& CEREAL PRODUCTS CATEGORY**

S. No.	Parameter	Product	Method
1.	Acid value	Instant noodles	Described in standard CODEX STAN 249: 2006 for Instant Noodles
2.	Protein	Durum Wheat	ICC 105/1 (CODEX STAN 234-1999)
3.	Protein	Maida	ICC 105/1 (CODEX STAN 234-1999)
4.	Protein	Pearl millet flour	AOAC 920.87 (CODEX STAN 234-1999)
5.	Protein	Sorghum flour	ICC 105/1 (CODEX STAN 234-1999)
6.	Protein	Durum wheat semolina	ICC 105/1 (CODEX STAN 234-1999)
7.	Protein	Whole Durum wheat semolina	ICC 105/1 (CODEX STAN 234-1999)
8.	Yellow pigment	Durum wheat	J Agric Food Chem. 2002 Nov 6;50(23):6663-8. Spectrophotometric determination of yellow pigment content and evaluation of carotenoids by high-performance liquid chromatography in durum wheat grain. AOAC – 950.34 – Pigment in flour
9.	Fat	Pearl millet flour	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
10.	Crude fat	Sorghum flour	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
11.	Oil content	Soybean	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
12.	Acid value of extracted oil	Soybean	Described in standard CODEX STAN 249: 2006 for Instant Noodles
13.	Crude Protein	Soy protein products	AOAC 955.04D (using factor 6.25) (CODEX STAN

S. No.	Parameter	Product	Method
			234-1999)
14.	Crude protein	Wheat protein products including wheat gluten	AOAC 979.09 (CODEX STAN 234-1999)
15.	Protein	Whole maize (corn) flour	ICC 105/1 (CODEX STAN 234-1999)
16.	Crude fat	Whole maize (corn) flour	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
17.	Protein	Degermed maize corn flour	ICC 105/1 (CODEX STAN 234-1999)
18.	Protein	Tempe	ICC 105/1 (CODEX STAN 234-1999)
19.	Fat content	Tempe	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
20.	Protein	Textured Soy Protein ((Soy Bari/Soy Nuggets/ Soy Chunks/ Soy Granules)	ICC 105/1 (CODEX STAN 234-1999)
21.	Fat	Textured Soy Protein ((Soy Bari/Soy Nuggets/ Soy Chunks/ Soy Granules)	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
22.	Hexane	Textured Soy Protein ((Soy Bari/Soy Nuggets/ Soy Chunks/ Soy Granules)	Rapid Quantitative Determination of Residual Oils by Direct Gas Chromatography - Journal of the American Oil Chemists Society Vol. 52 Pg 118-120
23.	Total solids	Soyamilk	Determination of soluble solids - FSSAI Manual of Methods of Analysis of Foods - Fruits and Vegetables
24.	Protein	Soyamilk	ICC 105/1 (CODEX STAN 234-1999)
25.	Fat	Soyamilk	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
26.	Protein	Tofu	ICC 105/1 (CODEX STAN 234-1999)
27.	Fat	Tofu	AOAC 945.38F; 920.39C (CODEX STAN 234-1999)
28.	Titration acidity (as lactic acid)	Tofu	Determination of acidity - FSSAI Manual of Methods

S. No.	Parameter	Product	Method
			of Analysis of Foods - Fruits and Vegetables
29.	Acidity	Edible sago flour	IS 899
30.	Starch	Edible sago flour	IS 899
31.	Protein	Decorticated millet grain	AOAC 920.87 -whole & decorticated pearl millet grains (CODEX STAN 234-1999)
32.	Fat	Decorticated millet grain	AOAC 945.38F; 920.39C - for crude fat in whole & decorticated pearl millet grains (CODEX STAN 234-1999)