

GET FOOD FACTS RIGHT

Cereal and Cereal Products

1). What is Wheat Atta?

As per the sub – regulation 2.4.1.1 of FSS (Food Products Standards and Food Additives) Regulations, Atta or resultant atta means the coarse product obtained by milling or grinding clean wheat free from rodent hair and excreta.

2). What is wheat protein?

Wheat flour contains 2 classes of proteins – 1) **Glutenin** which is responsible for elasticity and 2) **Gliadin** which is responsible for raising of the dough. In the presence of water, these two proteins bond together. This creates an elastic network of protein called gluten. As such, gluten occurs naturally in atta.

3). What is wheat gluten?

Gluten is the rubbery mass that is left when wheat flour dough is washed with water to remove starch, non-starchy polysaccharides and water soluble constituents. It is comprised of 80-85% protein, 5% lipids. Most of the remainder is starch and non-starch carbohydrates. Gluten is obtained from flour by kneading the wheat flour with water, agglomerating the elastic gluten into dough which is elastic and then washing out the starch.

4). Is gluten good or bad for health?

Gluten is a protein found in some grains, such as wheat, rye and barley. Gluten may act as a prebiotic, feeding the “good” bacteria in our bodies.

However, Gluten may cause health problems for persons with gluten-related disorders, such as celiac disease, dermatitis herpetiformis and other forms of non-celiac gluten sensitivity. Gluten causes small intestinal damage for persons with celiac disease and dermatitis herpetiformis, leading to mal-absorption, malnutrition, and associated health conditions.

5). Is gluten present in any other food stuff?

Gluten naturally occurs in many other cereal grains such as barley and rye.

6). What is the minimum limit of gluten in Atta, Maida and Semolina?

FSSAI has prescribed limit of ‘Not less than 6.0 per cent (on dry weight basis)’ for gluten content in the standard of ‘Atta or Resultant Atta and Semolina’ and ‘Not less than 7.5 per cent (on dry weight basis)’ for gluten content in the standard of ‘Maida’.

7). What is Saboodana (Tapioca Sago)?

Saboodana (Tapioca Sago) is the product made from the starch obtained from roots of tapioca (*Manihot esculenta* crantz syn. *Utilissima*). It shall be hard, clean, wholesome globules or pearls of uniform colour, shape and size having characteristic taste and flavour.

8). Can starch from any other source be used for manufacturing of Saboodana (Tapioca Sago)?

Saboodana (Tapioca Sago) is the product made from the starch obtained from roots of tapioca (*Manihot esculenta* crantz syn. *Utilissima*) only. Starch used from any other source such as Maize starch is adulteration and cannot be named as Saboodana or Tapioca starch sago or Sago.

Oils and Fats-

1). Whether any standards exist to determine the quality of used cooking oil beyond which the oil is not safe for further use after repeated frying?

As per Clause (4) of sub-paragraph 7 relating to Fried Foods of paragraph VI, Part-V, Schedule 4 of Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011, Vegetable oil having developed Total Polar Compound more than 25% shall not be used.

2). Are there any standards for Trans Fats in Various Edible Oils and Fats?

The Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 prescribe the limit of trans fats to be not more than 5% by weight in Interesterified Vegetable Fats, Vanaspati, Bakery and Industrial Margarine and Bakery Shortening.

3). Is there any proposal to cover other oils and Fats such as Refined Vegetables oil, Fat Spread, Margarine etc. for limit of trans fats?

A proposal for fixing the limits for Trans Fats to be not more than 5% by weight in Refined Vegetable Oil, Partially Hydrogenated Soybean Oil, Table Margarine, Mixed Fat Spread and Vegetable Fat Spread is under consideration of the Authority.

4). There is confusion about the presence of various Veg Oils in Blended Edible Vegetable Oil. What are the provisions in the regulations? What a customer should see on the label of the container?

The clause 24 of sub-regulation 2.2.1 of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011 prescribe the standards of Blended Edible Vegetable Oil wherein it is mentioned that the blended edible vegetable oil is an admixture of any two edible vegetable oils where the proportion by weight of any edible vegetable oil used in the admixture is not less than 20 per cent.

A consumer should always look at the composition of blended oil i.e., name of oils used, nature (raw or refined) and quantity of oils on the label of blended oil.

5). What does the vegetable oil consists of?

Vegetable oils consist of fatty acids and other minor constituents like pigments, fat soluble vitamins, antioxidants, sterols, free fatty acids, etc. There are three types of fatty acids: saturated (SAFA), monounsaturated (MUFA) and poly unsaturated (PUFA).

6). What is SAFA; MUFA; and PUFA?

SAFA is a fatty acid carbon chain with no double bond or point of unsaturation; MUFA is a fatty acid carbon chain with one double bond or one point of unsaturation; and PUFA is a fatty acid carbon chain with two or more double bonds or point of unsaturation. PUFA can further be categorized as Omega 3 and Omega 6 fatty acids.

7). How can a consumer visually judge which oil is rich in SAFA and which one is rich in MUFA and PUFA?

The degree of saturation of fatty acids in a fat affects the temperature at which the fat melts. Generally, the more unsaturated the fatty acids, the more liquid the fat is at room temperature (at around 25 °C). In contrast, more the saturated the fatty acids, the firmer the fat. So, Sunflower oil is liquid at room temperature which means more unsaturation. The oils or fats which are semi-solid or solid are rich in saturated fatty acids e.g. Butter, Coconut Oil.

8). Which vegetable oils are rich in SAFA or MUFA or PUFA?

The vegetable oils rich in SAFA, MUFA, PUFA are as under-

- **Oils and Fats rich in SAFA:** Butter, Ghee, Coconut Oil, Palm Oil, Palm Kernel Oil etc.
- **Oils and Fats rich in MUFA:** Groundnut Oil, Mustard Oil, Sesame Oil, Rice bran Oil, Olive Oil etc.
- **Oils and Fats rich in PUFA:** Corn Oil, Soybean Oil, Sunflower seed Oil, Safflower seed Oil etc.

9). What is recommended amount of SAFA, MUFA and PUFA be consumed in our diet?

The recommended healthy ratio of SAFA: MUFA: PUFA is 1:1.5:1.

10). What are essential fatty acids and their dietary sources?

Of all the fatty acids, omega-3 and omega-6 are considered as essential fatty acids since these cannot be synthesized in the body. The dietary sources of omega-3 and omega-6 are as under:

- **Oils rich in Omega-3:** Mustard, Low erucic acid-Mustard, Flaxseed, Soybean Oil, Fish Oil.
- **Oils rich in Omega-6:** Corn/Maize Oil, Soybean Oil, Sunflower Oil, Groundnut Oil, Small amount in dairy products.

11). What is the recommended ratio of omega 3: omega 6 to be consumed in our diet?

The recommended healthy ratio of Omega 3: Omega 6 ranges from 1:5 to 1:10.

12). How a consumer can ensure healthy ratio of SAFA, MUFA and PUFA and omega 3 and omega 6?

It can be ensured by using the edible oils rich in SAFA, MUFA, and PUFA in rotation, such as on monthly basis. To ensure omega 3 and omega 6, Mustard, Flaxseed, Soybean Oil may be included.

Fruits & Vegetables-

1). Is calcium carbide is permitted for artificially ripening of fruits?

Calcium carbide is not permitted for artificial ripening of fruits. Under regulation 2.3.5 Food Safety and Standards (Prohibition and Restrictions on Sale) Regulation 2011, related to use of carbide gas in ripening of fruits has been prohibited and have following provision: "No person shall sell or offer or expose for sale or have in his premises for the purpose of sale under any description, fruits which have been artificially ripened by use of acetylene gas, commonly known as carbide gas".

2). Whether chemicals are used for ripening fruits in the country?

Artificial ripening of fruits is permitted by Ethylene gas at a concentration upto 100 ppm (100µl/L) depending upon the crop, variety and maturity, under regulation 2.3.5 Food Safety and Standards (Prohibition and Restrictions on Sales) Regulation 2011.

3). Whether colouring of fruits and vegetables are permitted?

Use of colours on fruits and vegetables are not permitted under the provisions prescribed in sub regulations 2.3.6 of Food Safety and Standards (Prohibition and Restrictions on Sales) Regulations, 2011.

4). Whether coating of fresh fruits mainly apples with wax is permitted to give shine and enhance its shelf life?

Fresh fruits and vegetables may be coated with bees wax (white and yellow) or carnauba wax or shellac wax at level not exceeding Good Manufacturing Practices as per the sub-regulation 2.3.6 of Food Safety & Standards (Prohibition and Restrictions on Sales) Regulations, 2011.

Spices-

1). Cinnamon and Cassia

Cinnamon can be easily differentiated from the cassia. Cinnamon bark is sweet, smooth, delicate and light brown in colour. Several thin layers are curled and look like cigar.

While, cassia bark is thick, rough, uneven and dark brown in colour. On rolling it look like hollow tube. FSSAI has introduced the addition of parameter “Coumarin Content on dry basis - Not more than 0.3% by weight” in the existing standard of Cinnamon and Cinnamon Powder under regulation 2.9.4 of Food Safety & Standards (Food Products and Food Additives) Regulations, 2011.

Organic Food Products-

1). Organic Foods

Organic food has become a very popular and familiar word these days. With growing concerns about food safety and nutrition, the demand for organic food is increasing. Organic food is grown agriculturally without the use of chemical fertilizers and pesticides. All organic products are protected from prohibited substances and methods from the field to the point of final sale, whether it is a raw agricultural commodity or a multi-ingredient, processed product.

FSSAI has notified the Food Safety and Standards (Organic Foods) Regulations, 2017 on 29.12.2017 recognizing two already established systems of certification:-

- i. National Programme for Organic Production (NPOP).
- ii. Participatory Guarantee System (PGS-India).

2). Which legislation governing Organic Food in India?

Food Safety and Standards Act, 2006 govern the regulation of packaging, storage, distribution, sale and import etc. of Organic Food.

3). Who has to be certified under this legislation?

Organic Food Business Operator who are involved in the processing, distribution, transport, storage, retail and imports of all organic products need to be certified.

4). Who is exempted from the need of verification of compliance?

Direct sales by small original producer or producer organisation to the end consumer are exempted from the need of verification of compliance.

5). Who is in charge of certifying organic products?

The Accredited Certification Bodies in case of NPOP and Regional Councils in case of PGS-India certify Organic Food Products.

6). What are the residual limits of Insecticides in Organic Foods?

The organic food are required to comply with Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 except for residues of

insecticides for which the maximum limits shall be 5% of the maximum limits prescribed in these Regulations or Level of Quantification (LoQ) whichever is higher.

7). What about imported organic products?

Under bilateral or multilateral agreements based on the equivalence of standards as per National Programme for Organic Production, organic products are not required to be re-certified on import to India. All organic food consignments are to be accompanied by a Transaction Certificate issued by an Accredited Certification Body.

8). When will these regulations come into force?

The Food Safety and Standards (Organic Foods) Regulations, 2017 will come into force from 1st July 2018.
