



FOOD SAFETY AND REGULATORY REQUIREMENTS FOR SUGARCANE PRODUCTS



AATMANIRBHAR BHARAT

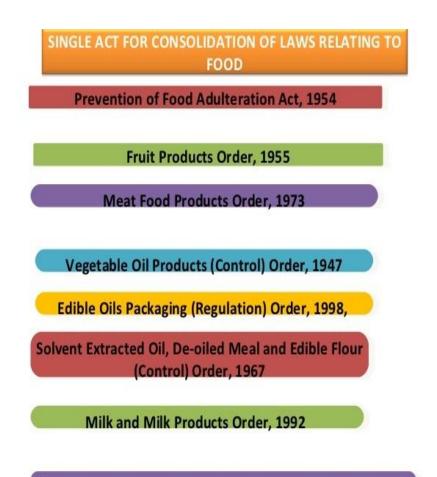
PM Formalisation of Micro Food Processing Enterprises Scheme (PM FME Scheme)



WHAT IS FSSAI ?



- Governing body regarding food safety and standards in india.
- The food safety regulations are laid down by Food Safety & Standards Authority of India, came into existence in 2006.
- Other agencies involved in standardization and quality certification are Bureau of Indian Standards (BIS), AGMARK, Codex.



Any other order issued under Essential Commodities Act, 1955 relating to food.



FUNCTIONS OF FSS ACT 2006



- Framing of Regulations to lay down the Standards and guidelines in relation to articles of food and specifying appropriate system of enforcing various standards thus notified.
- Laying down mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management system for food businesses.
- Laying down procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories.
- To provide scientific advice and technical support to Central Government and State Governments in the matters of framing the policy and rules in areas which have a direct or indirect bearing of food safety and nutrition.



Safe & Nutritious Food A Shared Responsibility



FUNCTIONS OF FSS ACT 2006



- Collect and collate data regarding food consumption, incidence and prevalence of biological risk, contaminants in food, residues of various, contaminants in foods products, identification of emerging risks and introduction of rapid alert system.
- Creating an information network across the country so that the public, consumers, Panchayats etc receive rapid, reliable and objective information about food safety and issues of concern.
- Provide training programmes for persons who are involved or intend to get involved in food businesses.
- Contribute to the development of international technical standards for food, sanitary and phytosanitary standards.



OBJECTIVE OF FSS ACT 2006



The Food Safety and Standards Authority of India (FSSAI) has been created under Food Safety and Standards Act, 2006 for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption and for matters connected therewith or incidental thereto.





STANDARDS FOR SUGARCANE PRODUCTS



SUGAR

Food Products and Food Additives Regulations, 2011. Standards of following sugars are specified :

- Plantation white sugar
- Refined sugar

•Khandsari sugar (i) Khandsari desi (ii) Khandsari Sugar a.k.a "Sulphur Sugar".

- Bura sugar
- Cube sugar
- Icing sugar







- Plantation white sugar : crystallized product obtained from sugarcane or sugar beet. It shall be free from dirt, filth, iron fillings and added colorings matter. Extraneous matter shall not exceed 0.1% by weight. It shall also conforms below following standards:
- (a) Moisture not more than 0.5% by weight.
- (b) Sucrose not less than 98% by weight.
- 2. Refined sugar : white crystalline sugar obtained by refining plantation white sugar. . It shall be free from dirt, filth, iron fillings and added colorings matter. Extraneous matter shall not exceed 0.1% by weight. It shall also conforms below following standards:
- (a) Moisture not more than 0.5% by weight.
- (b) Sucrose not less than 99.5% by weight.

It may contain food additives permitted in FSSR.





KHANDSARI SUGAR

It is obtained from sugarcane juice by open pan process and it may be of two types:

- (a) Khandsari sugar desi
- (b) Khandsari sugar (sulphur sugar)

It may be crystalline or in powder form.

It shall be free from dirt, filth, iron fillings and extraneous matter.

Extraneous matter shall not exceed – 0.25% by weight.

It may contain food grade sodium bicarbonate.





KHANDSARI SUGAR must conform to below standards:

		Khandsari Sugar (Sulphur Sugar)	Khandsari Sugar (Desi)
(i)	Moisture (when heated at $105^{\circ} \pm 1^{\circ}$ C for 3 hours)	Not more than 1.5 per cent by weight.	Not more than 1.5 per cent by weight.
(ii)	Ash insoluble in dilute hydrochloric acid	Not more than 0.5 per cent by weight	Not more than 0.7 per cent by weight.
(iii)	Sucrose	Not less than 96.5 per cent by weight.	Not less than 93.0 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

NOTE: - Khandsari sugar can be distinguished from plantation white sugar on the following characteristics, namely:

	Khandsari Sugar (Sulphur Sugar)	Khandsari Sugar (Desi)
(i) Conductivity (106 mho/cm2)	100-300 in 5% solution at 30°C	Not more than 100 in 5% solution at 30°C
(ii) Calcium oxide (mg/100gms)	Not more than 100	Not more than 50





4. BURA SUGAR means the fine grain size product made out of any kind of sugar. It shall be free from dirt, filth, iron filing and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

- (a) Sucrose
- (b) Ash insoluble in dilute hydrochloric acid

Not less than 90.0 per cent by weight.

Not more than 0.7 per cent by weight.

The product may contain food additives permitted in these Regulations and Appendices.

5. CUBE SUGAR means the sugar in the form of cube or cuboid blocks manufactured from refined crystallised sugar. It shall be white in colour, free from dirt and other extraneous contamination. It shall conform to the following standards :---

- (a) Sucrose
- (b) Moisture
- (c) Total ash

Not less than 99.7 per cent by weight. Not more than 0.25 per cent by weight. Not more than 0.03 per cent by weight





6. ICING SUGAR means the sugar manufactured by pulverizing refined sugar or vacuum pan (plantation white) sugar with or without edible starch. Edible starch, if added, shall be uniformly extended in the sugar. It shall be in form of white powder, free from dust, or any other extraneous matter.

The product may contain food additives permitted in these Regulations and Appendices. It shall conform to the following standards:----

- (a) Total starch and sucrose (moisture free)
- (b) Moisture
- (c) Starch

Not less than 99.0 per cent by weight.

Not more than 0.80 per cent by weight.

Not more than 4.0 percent by weight on dry basis.

1. MISRI means the product made in the form of candy obtained from any kind of sugar or palmyrah juice. It shall be free from dirt filth, iron filings and added colouring matter. Extraneous matter shall not exceed 0.1 per cent by weight. It shall also conform to the following standards, namely:—

(a) Total ash

Not more than 0.4% by weight

(b) Total Sugar (Called, known or expressed as Sucrose) Not less than 98.0% by weight

The product may contain food additives permitted in these Regulations and Appendices.





 GUR OR JAGGERY means the product obtained by boiling or processing juice pressed out of sugarcane or extracted from palmyra palm, date palm or coconut palm. It shall be free from substances deleterious to health and shall conform to the following analytical standards, on dry weight basis :-

Total sugars expressed as invert sugar	Not less than 90 percent and sucrose not less than 60 percent	
Extraneous matter insoluble in water	Not more than 2 per cent.	
Total ash	Not more than 6 per cent	
Ash insoluble in hydrochloric acid (HCl)	Not more than 0.5 per cent	
Cur or jaggery other than that of the liquid or semi-liquid variety shall not contain more than 10% mai		

Gur or jaggery other than that of the liquid or semi liquid variety shall not contain more than 10% moisture.

The product may contain food additives permitted in these Regulations and Appendices.

Sodium bicarbonate, if used for clarification purposes, shall be of food grade quality.





VINEGAR STANDARDS



 Brewed Vinegar means a product obtained by alcoholic and acetic acid fermentation of any suitable medium such as fruits, malt (brewed exclusively from malted barley or other cereals), molasses, Jaggary, Sugar Cane juice etc. with or without addition of caramel and spices. It shall not be fortified with acetic acid.

a) The product may contain food additives permitted in these regulations including Appendix A. The product shall conform to the microbiological requirements given in Appendix B. It shall meet the following requirements:—

- (i) Acidity (m/v) Not less than 3.75 percent calculated as acetic Acid
- (ii) Total Solids (m/v)
- (iii) Total ash content

Not less than 5.75 percent carculated

Not less than 1.5 percent

Not less than 0.18 percent

(iv) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substances or colouring matter except caramel.

b) The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.



VINEGAR STANDARDS



2. Synthetic Vinegar means the product prepared from acetic acid with or without caramel & spices and shall confirm to the following requirements:

(i) Acidity of the product shall not be less than 3.75 percent m/v.

(ii) It shall not contain sulphuric acid or any other mineral acid. It shall be free from any foreign substance or colouring matter except caramel.

2. Synthetic vinegar shall be distinctly labelled as

SYNTHETIC - PREPARED FROM ACETIC ACID.

3. The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers. The water capacity of the container is the volume of distilled water at 20°C which the sealed container is capable of holding when completely filled.



ALCOHOL PRODUCTS STANDARD



COUNTRY LIQOURS :

These are alcoholic beverages obtained from distillation of fermentation of carbohydrates of agricultural origin. It may be of two types:

- Plain country liquor: It shall be made from fermented distillate obtained from fermented molasses and Jaggery (Gur) or from carbohydrate obtained from other agricultural sources.
- 2. Blended country liquor: it is blend of rectified spirit, neutral spirit and alcohol distillate.





ALCOHOL PRODUCTS STANDARD



COUNTRY LIQOURS :

It must conform to the below standards specified by FSSAI:

S.No.	Parameter	Plain country liquor	Blended country liquor
1.	Ethyl alcohol content at 20 °C (per cent by volume) max	19 to 43	19 to 43
2.	Residue on evaporation per cent (m/v)	1.0	1.0
3.	Volatile acids as acetic acid (expressed as g/100 I of absolute alcohol (max)	100.0	250
4.	Higher alcohols as amyl alcohol (as g/100 l of absolute alcohol), <i>Max</i>	250.0	250.0
5.	Methyl alcohol (expressed as g/100 l of distilled absolute alcohol), <i>Max</i>	50.0	50.0



COUNTRY LIQOUR STANDARDS



S.No.	Parameter	Plain country liquor	Blended country liquor
6.	Total esters as ethyl acetate (expressed as g/100 l of absolute alcohol), <i>Max</i>	150.0	100.0
7.	Furfural (expressed as g/100 I of absolute alcohol), Max	12.0	12.0
8.	Aldehydes as acetaldehyde (expressed as g/100 l of absolute alcohol), <i>Max</i>	35.0	35.0
9.	Arsenic mg/l, Max	0.25	0.25
10.	Cadmium mg/l, Max	0.01	0.01
11.	Copper mg/l, Max	5.0	5.0
12.	Lead mg/I, Max	0.2	0.2
13.	Mercury mg/l, Max	-	-



WHY FSSAI REGISTRATION REQUIRED?



- Every food business operator involved in the manufacture, processing, storage and distribution and sale of food products must compulsorily obtain FSSAI Registration or License.
- It is a 14-digit registration of a license number which is printed on all the food packages. The 14-digit registration number gives details about the assembling state, producer's permit.





FSSAI LICENSE & REGISTRATION



Registration: For turnover less than 12 lakh.

State License: For turnover between 12 Lakh to 20 crores.

Central License: For turnover above 20 crore.



DOCUMENT AND FEE STRUCTURE



- 1. Authorized person address proof
- 2. Passport size photo
- 3. Business name and address
- 4. FSSAI declaration form
- 5. Nature of business details



Types/Category	Registration-1 Year	Central- 1 year
New Application	Rs. 100	Rs. 7500
Renewal Application	Rs. 100	Rs. 7500
License/Certificate modification	Rs. 100	Rs. 7500
Duplicate Certificate/ License	10% of the applicable certificate fee	10% of the applicable certificate fee 20



CENTRAL FSSAI LICENSE REGISTRATION



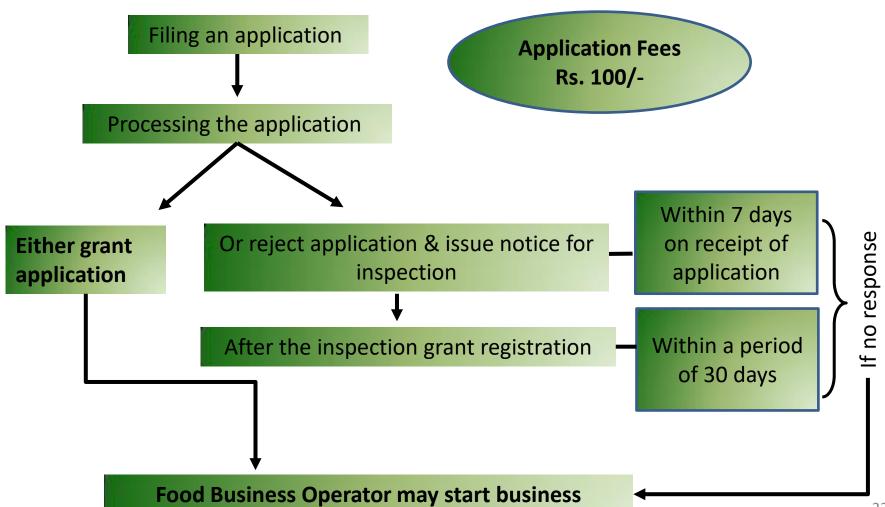
Businesses having annual turnover above 20 crore can apply for FSSAI central license.

- Rental Agreement of Business Premises.
- ID Proof Aadhaar Card / Driving License / Passport / Voter ID
- If any Government Registration Certificates (Company Incorporation Certificate / Firm Registration / Partnership Deed / Pan card / GST / Shop & Establishment / Trade License)
- If the applicant is private limited company or partnership firm then they should provide MOA & AOA or Partnership deed copy.
- IE Code (Import Export Code) Certificate (for the category of export and import IE code is compulsory)
- Authority letter from the company letterhead to the concerned person stating that he is authorized to file FSSAI application.
- ✤ List of food category desired to be manufactured (In case of manufacturers).



PROCEDURE FOR REGISTRATION

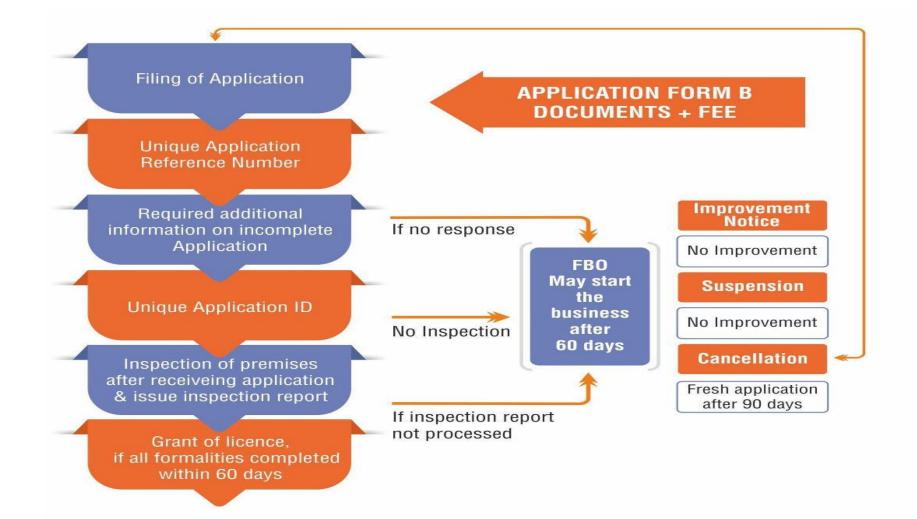






LICENSING PROCESS







How to apply for FSSAI registration



Follow the link <u>https://foscos.fssai.gov.in/</u>









Home | About FoSCoS | FSSAI | User Manual | Login-Businesses | Login-Authorities | Sign Up

ejection of applications in case of non-response. Click Here





How to apply for FSSAI registration



Follow the link <u>https://foscos.fssai.gov.in/</u>









Home | About FoSCoS | FSSAI | User Manual | Login-Businesses | Login-Authorities | Sign Up

ejection of applications in case of non-response. Click Here





How to apply for FSSAI registration ? Cont...

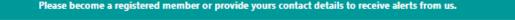


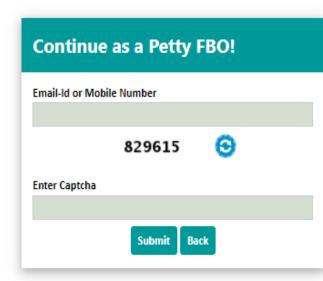






Home | About FoSCoS | FSSAI | User Manual | Login-Businesses | Login-Authorities | Sign Up





- 1. Enter Email-Id or Mobile Number and submit.
- A verification code (OTP) will be sent to given Email-Id or Mobile Number.
- 3. Enter the code and submit.

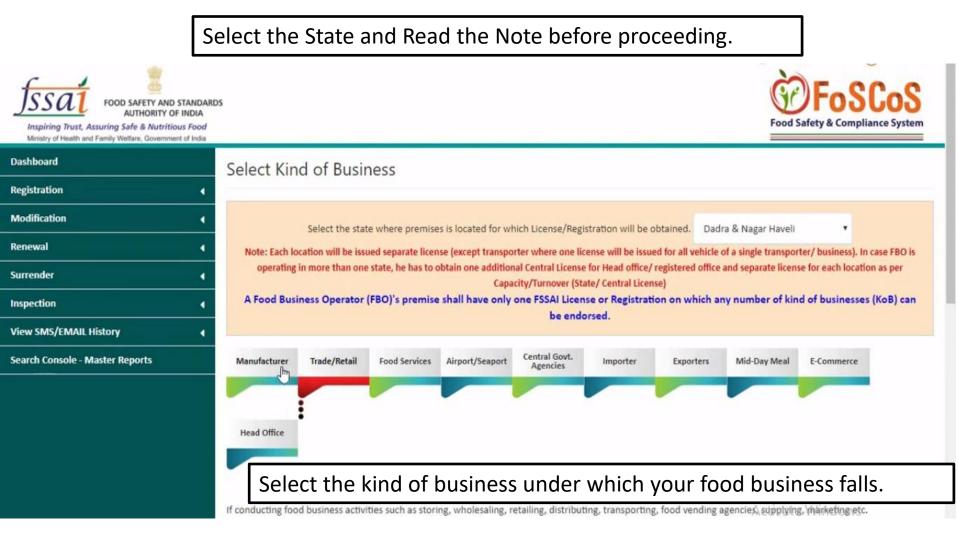
DOCUMENTS REQUIRED	ADDITIONAL INFORMATION	FSS ACT, 2006	USEFUL LINKS	
NEW LICENSE	ANNUAL RETURN	FSS RULES, 2011	FoSTaC	
NEW REGISTRATION	FORM D-1/FORM D-2	FSS REGULATIONS	FPIVS	
RENEWAL OF LICENSE	Importer		FOOD SAFETY MITRA	
MODIFICATION	Exporter	GAZETTE NOTIFICATION	More Links	
FEE STRUCTURE	INSPECTION CHECKLIST	ADVISORIES/ORDERS		



How to apply for FSSAI

registration ? Cont...





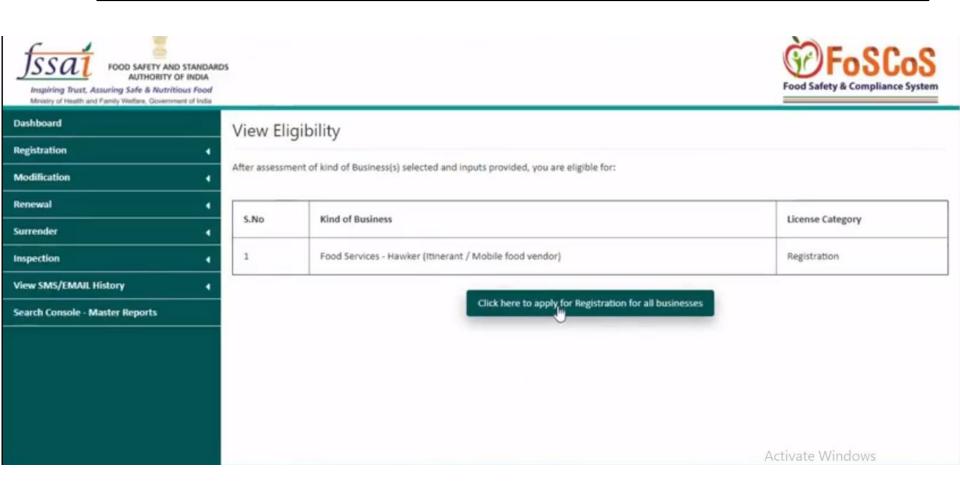


How to apply for FSSAI registration



<u>? Cont</u>...

After selecting your food business from the category, proceed to registration





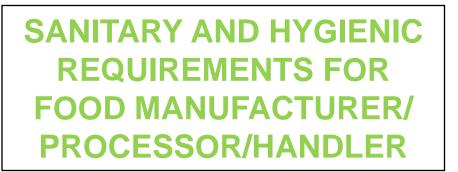


SANITARY AND HYGIENIC REQUIREMENTS FOR FOOD MANUFACTURER/ PROCESSOR/HANDLER

- The premises shall be located in a sanitary place and free from filthy surroundings and shall maintain overall hygienic environment. All new units shall set up away from environmentally polluted areas.
- The premises to conduct food business for manufacturing should have adequate space for manufacturing and storage to maintain overall hygienic environment.
- The premises shall be clean, adequately lighted and ventilated and sufficient free space for movement.









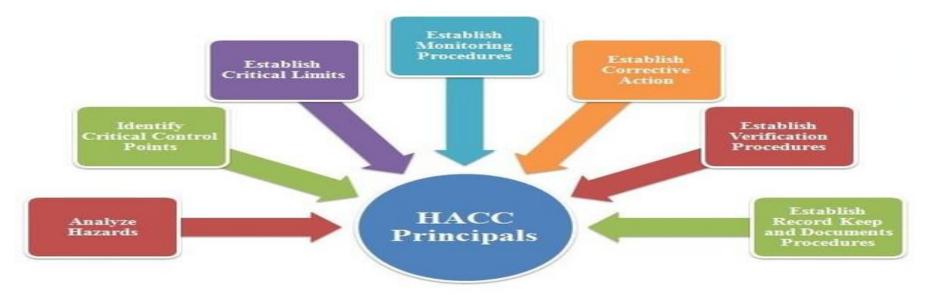
- The water used in the manufacturing shall be potable.
- Continuous supply of potable water shall be ensured in the premises. In case of intermittent water supply, adequate storage arrangement for water used in food or washing shall be made.
- Equipment and machinery when employed shall be of such design which will permit easy cleaning. Arrangements for cleaning of containers, tables, working parts of machinery, etc. shall be provided.
- No vessel, container or other equipment, the use of which is likely to cause metallic contamination injurious to health shall be employed in the process.
- All equipments shall be kept clean, washed, dried and stacked at the close of business to ensure free from growth of mould/ fungi and infestation.







HACCP – Hazzard analysis and critical Control Points is a systematic risk-based approach to the prevention of biological, chemical and physical contamination of food in processing, packaging and distribution conditions. The HACCP concept is intended to resolve health risks by detecting possible food safety concerns before they emerge, rather than inspecting food items for hazards after the incident. The HACCP definition includes managing contaminants at a variety of key junctures in the food processing process and strict commitment to hygiene standards in the whole process.





Good Manufacturing Practices (GMP)



 GMP – Good Manufacturing Practices are globally accepted quality improvement principles for food, drinks, cosmetics, pharmaceuticals, dietary supplements and medical devices. These guidelines set out the procedures to be followed by producers to ensure that their products are reliably of good quality from batch to batch and secure for human consumption, including mandatory inspection of products at critical control points.





For More details Contact:

National Institute of Food Technology and Entrepreneurship and Management Ministry of Food Processing Industries Plot No. 97, Sector-56, HSIIDC, Industrial Estate, Kundli, Sonipat, Haryana-131028

Website: http://www.niftem.ac.in

Email: pmfmecell@niftem.ac.in Call: 0130-2281089