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# PACKAGING OF ASAFOETIDA



**AATMANIRBHAR BHARAT**

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

# INTRODUCTION

## Shelf Life of Product

- Asafoetida gives a lot of flavor to our dishes and is so easy to use and readily available.
- The spices do not spoil, but they lose their strength with time.
- Spices maintain their potency longer than you would expect if properly stored.
- Whole seeds, last longer than their ground counterparts.



## Appropriate storage of spices

- There are two critical keys to maintaining the optimum flavor and getting the greatest value out of your herbs and spices.
- Store your spices and seasoning blends in airtight containers and keep them in a cool dark place.
- Keeping containers tightly closed will protect them from moisture and oxidation.
- Keeping them away from direct light will keep their color from fading.
- We've also found that when spices are stored in glass jars they tend to retain more of their essential oil content.



# PACKAGING

## Need for Packaging:

- A package is an actual container or wrapper.
- Thus packaging is a business function and a package is an item.
- A package is basically an extension of the product offered for sale.
- In many situations, the packaging may be more important than the product it contains.
- Food packaging is everywhere. Being such a large industry, packaging has its own principles, technology, advantages and disadvantages, processes, toxic effects and cost.



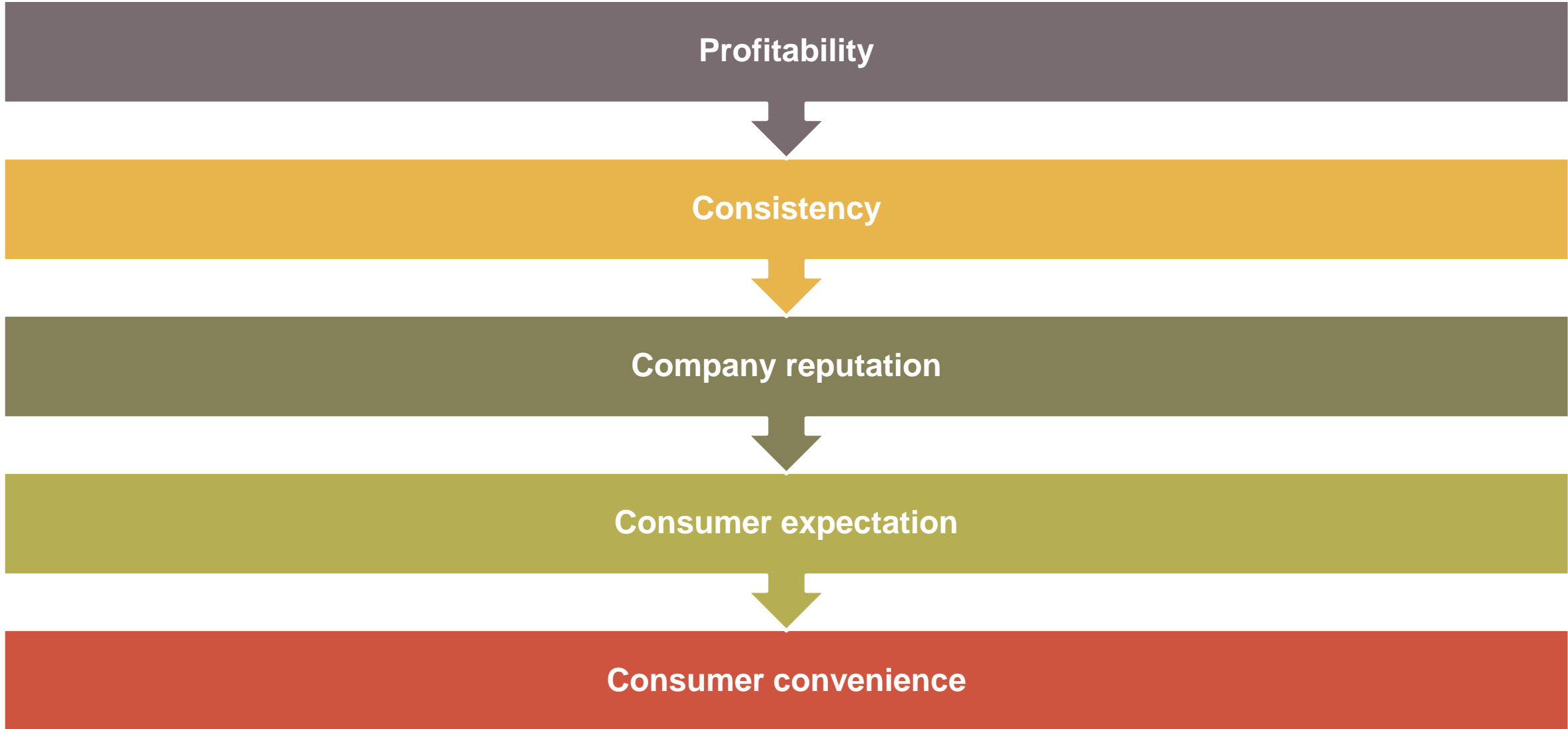
# PACKAGING

## Need for Packaging:

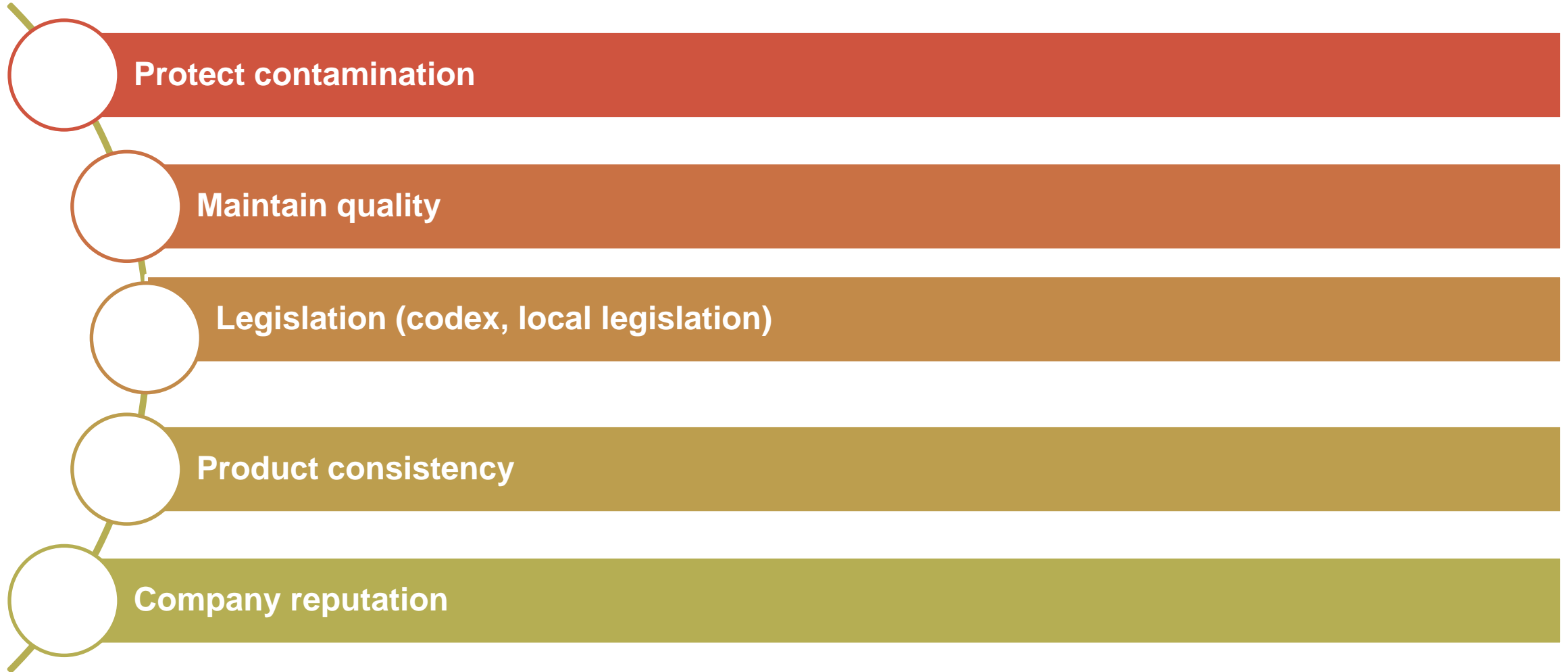
- Packaging which used to be a mere necessity few decades back has now turned into an art and a science.
- It also refers to the process of design, evaluation, and production of packages.
- While appropriate packaging is important to maintain the basic attributes of food (temperature, color, taste, texture, etc.), maintaining food safety is an important function of packaging.



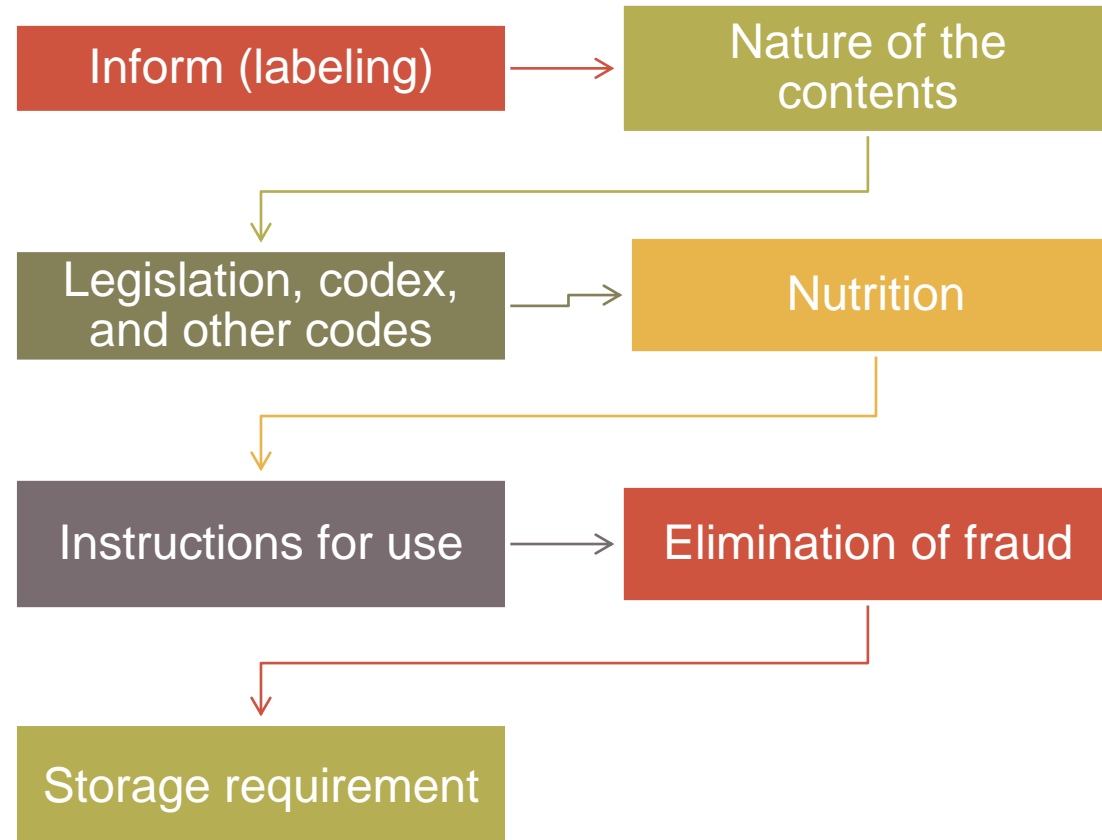
# FEATURES OF PACKAGING



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## Primary packaging

- It refers to the product's immediate container.
- It is the packaging that most closely protects the product.
- It can also be referred to as retail or consumer packaging.
- E.g. tin cans, glass jar



# TYPE OF PACKAGING



## Secondary Packaging

- Secondary packaging is the packaging that holds the individual units of package.
- Secondary packaging makes it easier for retailers to display and handle products.
- Secondary packaging may be removed from the item without changing the qualities or attributes of the good.
- Common examples include cardboard cartons, cardboard boxes, paperboard cartons, shrink-wrapped bundles Etc.

# TYPES OF PACKAGING

## Tertiary packaging

- It refers to the further packaging necessary for storage or transportation.
- It may contain a number of products within a cardboard box for easy transportation.
- Mostly certain boxes are used for final packaging



# CHARACTERISTICS OF PACKAGING MATERIAL

**The material selected must have the following characteristics:**

- Must meet tamper-resistance requirements
- Must not reactive with the product
- They must protect the preparation from environmental conditions
- Must be non-toxic
- Must not impart odor/taste to the product
- Must be approved by government body.



## Wood, cardboard, and papers

- Products derived from wood are widely used in the packaging of spices in the form of paper and cardboard.
- Paper is a very cheap, lightweight product with excellent printing capacity.
- Although it is very sensitive to moisture.
- it can be corrected with a combination of paper and other materials such as plastic or paraffin.
- Cardboard is a material made up of several superimposed layers of paper, making it thicker, harder, and more resistant than paper.



## Plastic material for packaging of Spices

The printed flexible packets are generally laminates of various compositions. Some of the commonly used laminates are:

- Polyester/metallised polyester/LDPE
- BOPP/LDPE
- BOPP/metallised polyester/LDPE
- Polyester/Al foil/LDPE



## Metals (Steel, Tin, Aluminium)

- Preservation of canned food and drinks is the primary application of these metals.
- Tin-coated steel and Aluminium bowls are most widely used.
- It is an opaque material that gives a light-sensitive advantage to food.
- The s[ices is nowadays consecrated for export and in this industrial metal coating is widely used.
- Tin cans are composed of steel-coated steel sheets, in particular when containing items of low pH as a measure of protection from corrosion by steel.



## Glass

- Glass is impermeable to gas and vapor.
- It is an outstanding and totally neutral barrier of oxygen.
- However, it is a fragile, heavy material that needs a lot of energy to produce.
- it is a recyclable product since it can be used as a container repeatedly.





# GLASS CLOSURE AND SEALING LUG JARS

## Lug Jars

- Also known as Twist Off(T/O) caps, lug caps are compatible with containers whose threads are non-continuous.
- Lugs on the interior of a lug cap, correspond with the non- continuous threads and close by a partial rotation.



LUG Cap Sealer  
(Mechanical)



LUG Cap Sealer  
(Pneumatic)



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MINISTRY OF FOOD PROCESSING INDUSTRIES  
GOVERNMENT OF INDIA



# GLASS CLOSURE AND SEALING THREAD JARS

## Continuous Tread

- Continuous thread caps can be metal or plastic and have various liner options.
- Categorized by threads which wrap continuously around a given finish, a few products that traditionally use continuous thread caps include peanut butter and mayonnaise.



## COMPOSITE CONTAINERS

- Composite containers are also used for packaging of compound asafoetida and powder.
- The containers are round and the body (side wall) is made of PE coated foil laminated spirally wound paper.
- The top and bottom ends of the container may be made from metal or plastic.
- The inner face is coated with plastic film or a combination of film and aluminum foil- This ensures optimum barrier properties against moisture and oxygen.



# OTHER PACKAGING MATERIAL

## PET bottles

- Clear, Shiny and transparent.
- Unbreakable.
- Good barrier properties.
- 100 % recyclable.
- Low permeability of moisture and air.



## OTHER PACKAGING MATERIAL

- Liner carton filling and packing machine also known as duplex box packing machine
- Provides good protection and barrier properties.



## Quality considerations during packing

Quality control of packed products is the last time the product is checked before reaching the customer.

Documented checking of the packages entails:

- Weight of the package
- Weight of the spices
- Arrangement of the packages
- Uniformity
- Damage to the product
- Defects; and Moisture content.



## Filling and Packaging machine

This machine used for Filling and sealing the the spices in the appropriate pouches, containers boxes for final packaging.





# PACKAGING MACHINERY



Bag filling machine



Automatic FFS machine



Automatic double head power filling machine



# FSSAI LABELLING REQUIREMENTS

1. Name of the Food
2. List of Ingredients
3. Nutritional information
4. Declaration Non-Vegetarian or Vegetarian
5. Information regarding food additives
6. Addition of colors and flavors
7. Net quantity
8. Name and complete address of the manufacturer
9. A lot no., Code no., and Batch number details
10. Date of manufacture or packing
11. Best before
12. Country of origin for imported food
13. Instructions for use shall be included in the label if necessary.

# FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011

- Every container in which any fruit product is packed shall be so sealed that it cannot be opened without destroying the licensing number and the special identification mark of the manufacture to be displayed on the top or neck of the bottle.
- For Canned fruits, juices and vegetables, sanitary top cans made up of suitable kind of tin plates shall be used.



# FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011

- For Bottled fruits, juices and vegetables, only bottles/ jars capable of giving hermetic seal shall be used.
- Juices, squashes, crush, cordials, syrups, barley waters and other beverages shall be packed in clean bottles securely sealed.
- These products when frozen and sold in the form of ice shall be packed in suitable cartons. Juices and Pulpes may be packed in wooden barrels when sulphated.



# FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011



- For packing Preserves, Jams, Jellies, and Marmalades, new cans, clean jars, new canisters, bottles, chinaware jars, and Aluminium containers may be used and it shall be securely sealed.
- For Pickles, clean bottles, jars, wooden casks, tin containers covered from inside with polythene lining of 250 gauge or suitable lacquered cans shall be used.

# FOOD SAFETY AND STANDARDS (PACKAGING AND LABELLING) REGULATIONS, 2011



- For Tomato Ketchups and Sauces, clean bottles shall be used. If acidity does not exceed 0.5% as acetic acid, open top sanitary cans may also be used.
- Candied fruits and peels and dried fruits and vegetables can be packed in paper bags, cardboard or wooden boxes, new tins, bottles, jars, aluminium and other suitable approved containers.
- Fruits and Vegetable products can also be packed in aseptic and flexible packaging material having good grade quality conforming to the standards laid down by BIS.

## CONTACT DETAILS



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