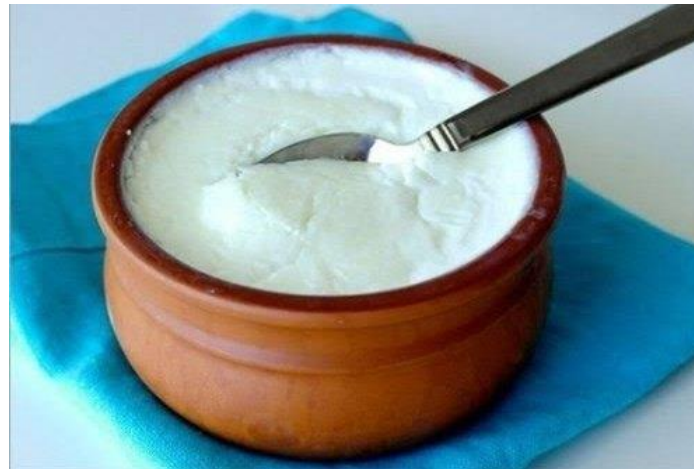


PACKAGING OF DAHI (CURD)



AATMANIRBHAR BHARAT

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

INTRODUCTION

As per Food Safety and Standards Regulations (FSSR), 2011 Plain Dahi shall have the same minimum percentage of milk fat and milk solids-not-fat as that of the milk, as provided for in the Standard for Milk, from which it is prepared. Dahi is sold or offered for sale without any indication of class of milk, the Standards prescribed for Dahi prepared from mixed milk shall apply



INTRODUCTION

- Dahi is very popular in all the parts of India and consumed directly after meals with sugar or salt
- Several value added products were prepared with the help of curd like:



Curd rice



Dahi ke raita



Dahi vade

PACKAGING

- Packaging is an important part of food manufacturing process. It protect the food products from physical ,chemical, biological damages.
- Without packaging, materials handling would be a messy, inefficient and costly exercise and modern consumer marketing would be virtually impossible.
- Packaging Institute International defined packaging as the enclosure of products, items or packages in a wrapped pouch, bag, box, cup, tray, can, tube, bottle or other container form to perform one or more of the following functions: containment, protection, preservation, communication, utility and performance. If the device or container performed one or more of these functions, it was considered a package.

NEED OF PACKAGING

- **CONTAINMENT** : protecting the environment from the myriad of products that are moved from one place to another.
- **PROTECTION** : to protect its contents from outside environmental influences such as water, water vapor, gases, odors, microorganisms, dust, shocks, vibrations and compressive forces.
- **CONVENIENCE** : Products designed to increase convenience include foods that are prepared and can be cooked or reheated in a very short time, preferably without removing them from their primary package.

- COMMUNICATION** : Packaging contains a lot of information such name of its manufacturer, product name, terms and uses, date of manufacturing, best before. nutritional information thus helping the consumer to be more informed.



TYPES OF PACKAGING

- **PRIMARY PACKAGING** : Primary package are those package which directly came into contact with food products. It provides first or initial layer of protection to the food products. Examples of primary packaging includes parchment paper, greaseproof paper, paperboard cartons, and plastic pouches.
- **SECONDARY PACKAGE** : Secondary package are those package which surrounds or contains the primary package. Ex. Corrugated case, Boxes
- **TERTIARY PACKAGE** : It contains number of secondary package together. Mainly used for bulk handling of food products.

PACKAGING MATERIAL FOR DAHI (curd)

- Packaging of dahi is mainly done to protect the dahi from outside environment, especially after the completion of process so that it can retain moisture, flavor, freshness for a longer period of time.



PACKAGING MATERIAL FOR DAHI (curd)

1. LDPE :

- Low-density polyethylene is heat sealable, inert, odour free and shrinks when heated.
- It act as a barrier to moisture and has high gas permeability
- It is less expensive, therefore widely used.
- Has ability of fusion welded to itself to give good, tough, liquid-tight seals.



PACKAGING MATERIAL FOR DAHI (curd)

2. HDPE or PP: High density Polyethylene or Polypropylene cup has been also used for packaging of curd. The benefits include:

- i. Weather-resistance
- ii. Malleability
- iii. Light-weight
- iv. Cost-effective
- v. Hygienic
- vi. Recyclable
- vii. FDA-approved



PACKAGING MATERIAL FOR DAHI (curd)

3. Bulk packaging in HDPE or Mutka:



4. POLYSTYRENE

- The most popular material in current use for fresh dahi/yoghurt is thermoformed TiO_2 pigmented high impact polystyrene (PS-HI), with either an aluminium foil/plastic laminate or a paper/plastic laminate heat-seal lid or closure.



POUCH PACKING MACHINE

- ✓ Automatic FFS (form fill and seal) machine.
- ✓ Filling Range: 200ml, 250ml, 500ml & 1ltr
- ✓ Filling System: Gravity filler
- ✓ Packing Material: LDPE film
width:324±2mm
- ✓ Filling Range: 200ml, 250ml, 500ml
- ✓ Pouch length: Mechanical adjustment
- ✓ All contact parts: Stainless Steel



CUPS PACKING MACHINE

- ✓ Automatic cup filling and lid sealing machine.
- ✓ The same machine may be use for shrikhand, and ice cream.



SOME RECENT TRENDS IN PACKAGING :

ACTIVE AND INTELLIGENT PACKAGING :

- Active packaging is defined as packaging in which subsidiary constituents have been deliberately included in or on either the packaging material or the package headspace to enhance the performance of the package system.
- Intelligent packaging is defined as packaging that contains an external or internal indicator to provide information about the history of the package and/or the quality of the food.
- Various functions performed by intelligent packaging includes: Oxygen absorber, Carbon dioxide absorber or emitter, Ethylene absorber, Ethanol emitter, Moisture absorber.

ASEPTIC PACKAGING :

- Aseptic packaging is the filling of sterile containers with a commercially sterile product under aseptic conditions, and then sealing the containers so that re-infection is prevented; that is, so that they are hermetically sealed.
- **Aseptic packaging are used for :**
 - ✓ To take advantage of high temperature.
 - ✓ Increase shelf life of food products at normal temperature.
 - ✓ In package sterilization.

ASEPTIC PACKAGING MACHINE

- ✓ Tetra Brik® Aseptic is one of the world's most efficient beverage carriers. Using no unnecessary material, weight, space or energy, its rectangular package shape stacks neatly on pallets, in transport containers, on supermarket shelves and at home.



Packaging of Buttermilk and Lassi



- Labeling is a means of performing the communication function of packaging, informing the consumer about nutritional content, net weight, product use and so on.
- ✓ Labeling acts as a silent salesman of a company
- ✓ Shape and design of the container attracts the customers.

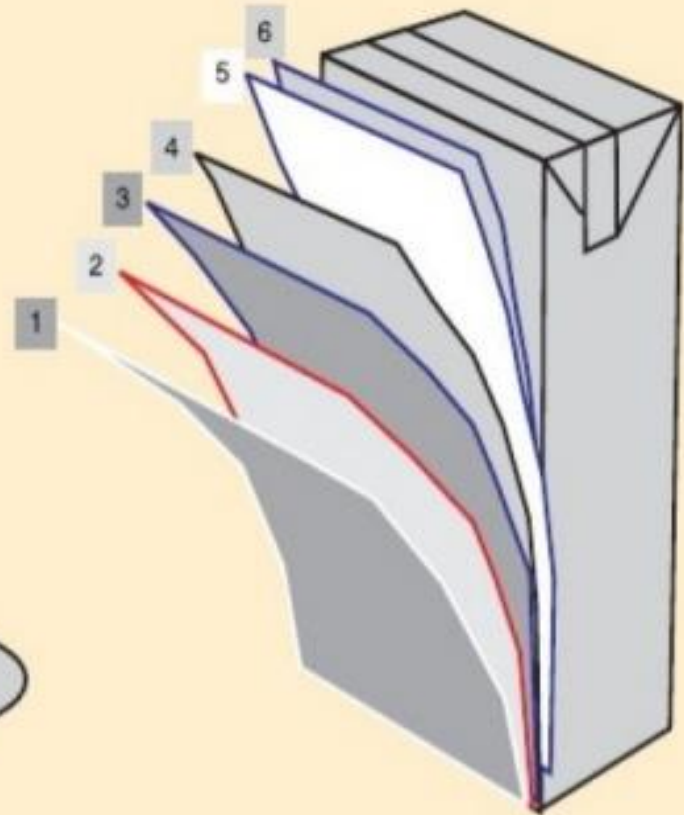


General requirement for packaging:

- A utensil or container made of the following materials or metals, when used in the preparation, packaging and storing of food shall be deemed to render it unfit for human consumption:—
 - (a) containers which are rusty;
 - (b) enameled containers which have become chipped and rusty;
 - (c) copper or brass containers which are not properly tinned
 - (d) containers made of aluminium not conforming in chemical composition to IS:20 specification for Cast Aluminium & Aluminium Alloy for utensils or IS:21 specification for Wrought Aluminium and Aluminium Alloy for utensils.

COMPOSITION OF TETRAPAK CARTON

1. Polyethylene: Protects against moisture
2. Paper: For stability & strength
3. Polyethylene: Adhesion
4. Aluminium: Oxygen, flavour & light
5. Polyethylene: Adhesion
6. Polyethylene: Seals in the liquid



6 Layers Providing Total Protection

- **Labeling should contain following information:**
 - ✓ Name of the food product.
 - ✓ List of ingredients.
 - ✓ Nutritional information.
 - ✓ Declaration of VEG and NON VEG.
 - ✓ Declaration of added food additives.
 - ✓ Name and address of manufacturer.



PACKAGING & LABELING LAWS - FSSAI

- ✓ Net quantity
- ✓ Code number
- ✓ Lot number/ Batch number.
- ✓ Date of manufacturing.
- ✓ Best before date
- ✓ Country of origin.
- ✓ .Number of pieces
- ✓ Bar Code
- ✓ Brand Name etc



STORAGE OF DAHI

Dahi is normally stored at 4⁰C to 5⁰C. Storage area should be maintained clean and tidy to avoid any cross contamination.

The proper storage requires following :

- **Dark Place** : Dahi should be always stored in a dark room to avoid it from sunlight or UV light, so that quality such as aroma and flavor should be maintained till final consumption.
- **Airtight** : To avoid dahi from absorbing moisture and unpleasant odour from air.



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