

PROCESSING OF FLAVORED MILK





Flavored milk is a type of dairy product that has been flavored with different ingredients, such as chocolate, strawberry, vanilla, and other natural or artificial flavors

- **Flavored milk can be made using different types of milk, such as whole milk, low-fat milk, or non-fat milk, depending on the desired fat content.**



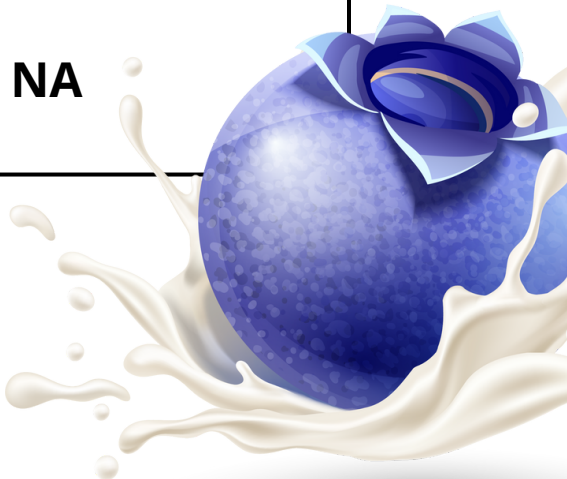
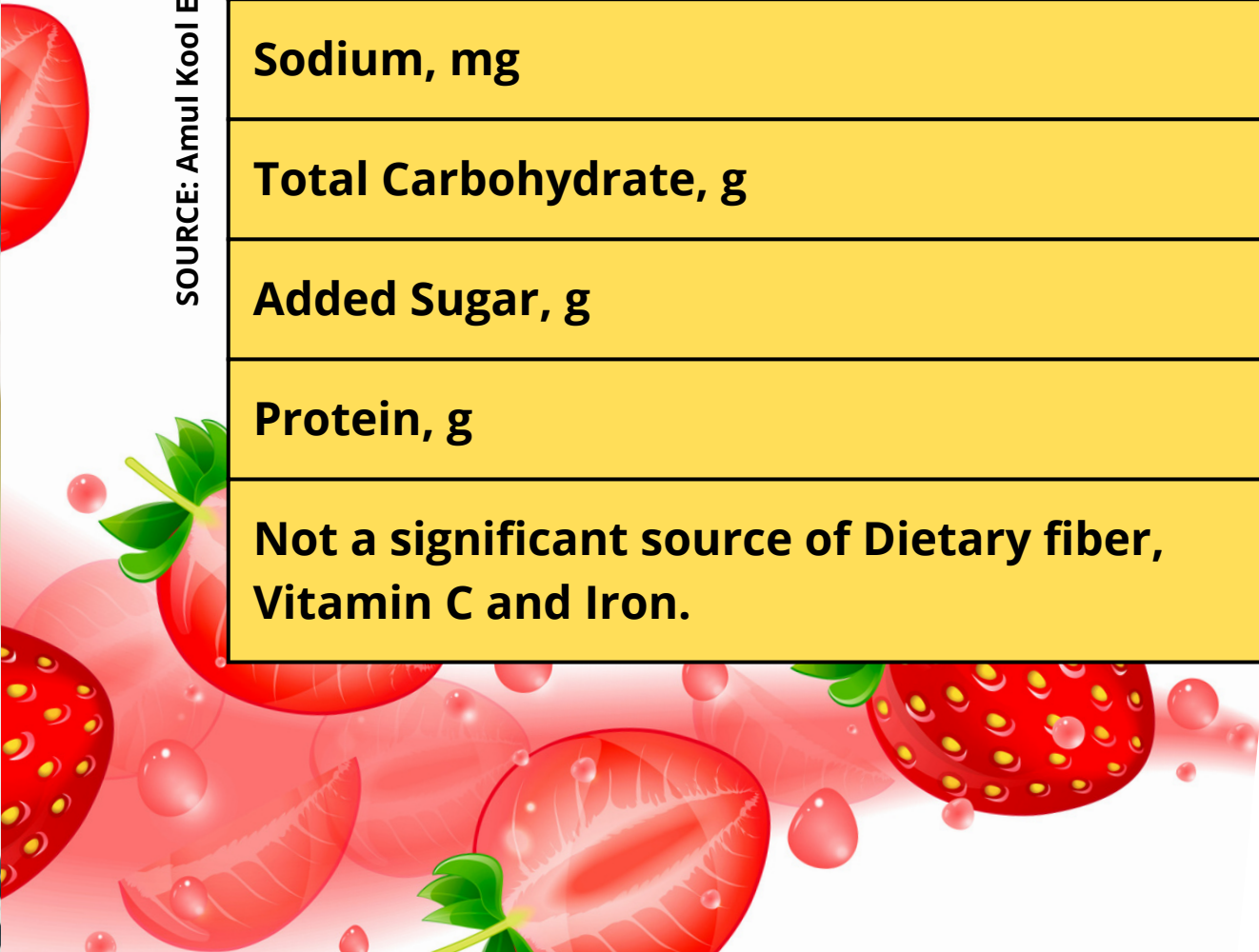
Nutrition composition



Amount per 100 ml

PARAMATER	VALUE
Energy, kcal	89
Energy from Fat, kcal	28
Total Fat, g	3.1
Saturated fat,g	1.9
Cholesterol, mg	8.3
Sodium, mg	50
Total Carbohydrate, g	12
Added Sugar, g	8
Protein, g	3.2
Not a significant source of Dietary fiber, Vitamin C and Iron.	NA

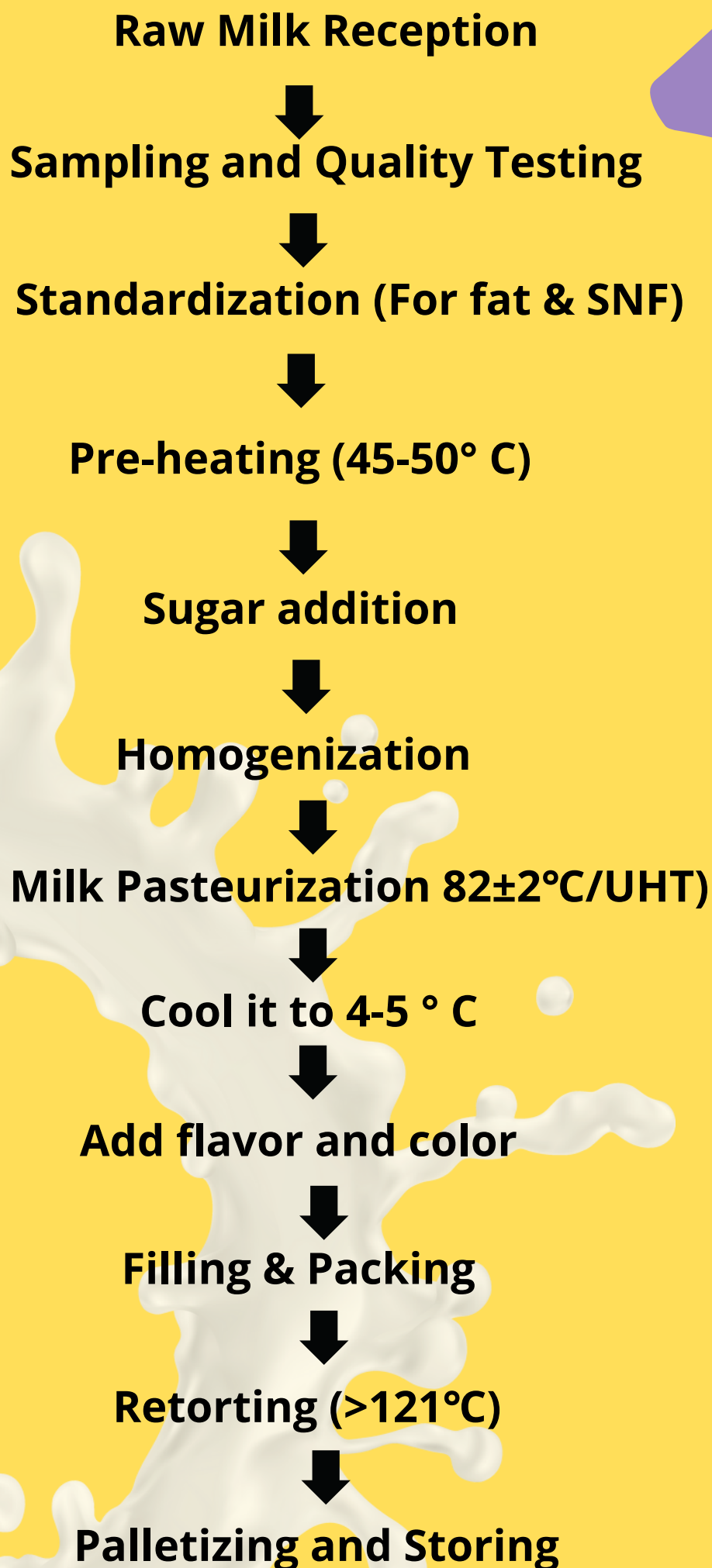
SOURCE: Amul Kool Elaichi Flavoured Milk



Process

The most common flavored milk flavors are:

- Chocolate
- Strawberry
- Vanilla
- Banana
- Coffee
- Caramel
- Cookies and Cream
- Mint



Flavors can be added in form of powder or fruit extracts.



1. Fruit extract addition

Ex: Fruit Flavored Milk

The processing of fruit-flavored milk involves adding **fruit puree** or **fruit syrup** to milk, along with other ingredients to adjust the sweetness and texture.

- The fruit syrup shouldn't have any acid (citric or tartaric) added because doing so could cause milk to curdle.

The fruit syrup's ideal sugar content ranges from 45 to 55%.



2. Powder addition

Ex: Chocolate flavor Milk

The processing of chocolate milk involves adding chocolate flavoring to milk, along with other ingredients to adjust the sweetness and texture.



Cocoa Powder + Sweetner (Sugar/corn syrup)



Quality control

The primary hygienic standards are:

- Before and after processing, all equipment and utensils should be cleaned and sterilised.
- Strict observance of personal hygiene regulations.
- Filtering of milk after milking to remove visible dirt and any 'ropiness'.
- Cooling of milk immediately to control further growth of micro-organisms and enzyme activity.



Process control

The main control points are the temperature and time involved in heating and cooling the milk.

- **Underheating may result in insufficient destruction of enzymes and microorganisms, reducing shelf life and increasing the risk of food poisoning.**
- **Overheating and slow cooling alter flavour, colour, and nutritional value.**



Packaging and storage

Flavored milk are mainly packed in :

1. Polypropylene bottles
2. Glass Bottles
3. Metal/PP cans
4. Tetrapacks

The packaging is mainly done under aseptic conditions

- While sterilised products have a shelf life of approximately 90–180 days at room temperature, pasteurised flavour milk has a shelf life of just 5-7 days when stored in the refrigerator (4-7° C).



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