

# Edible Water-Bottles

Zeshaan Sheikh<sup>1</sup>, Udit Nahata<sup>2</sup>, Pranav Annam<sup>3</sup>, Pranav Belgaonkar<sup>4</sup>,  
Prachi Tapadia<sup>5</sup>, Shreenivas Telkar<sup>6</sup>, Prof. Vivek Nagnath<sup>7</sup>

<sup>1,2,3,4,5,6,7</sup>Department of Engineering, Sciences and Humanities  
Vishwakarma Institute of Technology, Pune (India)

## ABSTRACT:

Banning of plastic has been a bane to the society in the recent years. Edible Water Bottles serves for a solution to this problem <sup>[1]</sup>. These blob like structures appear like water balloons which can be eaten; providing a refreshing feeling and an effective alternative to fluid form of water. The product is created with a simple process called spherification which is used in culinary. Easily portable, cost efficient and having an attractive appearance to the eye, edible waterbottles surely can be used in many fields in the near future. Our product culminates with a lumpsum amount of calcium as calcium lactate and Sodium Alginate are used in manufacturing the product, which is highly beneficial to the consumers who lack calcium contents in their body. While most of us face the fear of consuming plastic particles from the bottles, edible water blobs overcome the trouble we face imparting us an environmental friendly experience of drinking pure water.

**Keywords: Environmental Friendly, Easily Portable, Cost efficient, Spherification, Calcium Lactate, Sodium Alginate.**

## I. INTRODUCTION:

The state wide ban of plastic has had a major blow on packaging industry. Plastic bottles are non- biodegradable and decompose over a periods of 450-600 years increasing the pollution and harming the environment. This inspired us to find an alternate method of consuming water without adhering to plastic bottles. The aim was to make a product that is bio degradable and free from harmful chemicals. Although the invention has been established by Skipping Rocks Lab, we have tried to innovate the product by adding flavours, implementing it in various fields such as cooking, storage containers, medical uses and making it more cost effective (the average cost of 1 blob will cost less than a rupee). A very basic concept could serve as the means for our survival in near future.

## II. PROCEDURE:

1. Take 10g (approximate) of Sodium Alginate powder and mix it in a bowl filled with 2 cups of drinking water.
2. Blend the mixture well for 2-3 minutes and keep the mixture aside for 15 minutes (till there are no air bubbles left in the mixture)
3. Mix 20-25g of calcium lactate in a big bowl filled with 4 cups of non-drinking water.
4. Mix the solution well enough till no residue is left.
5. After 15 minutes take the sodium alginate solution and very gently pour it into the calcium lactate bath.
6. We notice small fibres and blobs forming in the bath.
7. Stir the entire solution extremely gently in a circular manner (make sure not to disturb the fibres accumulated in the centre)

8. After 3-5 minutes of stirring the solution with the use of a spoon scoop out the fibres formed.
9. Rinse the final product in clean drinking water before consuming.
10. For a better shape store the product in a small container and refrigerate for about 5-10 minutes.

Key Ingredients



Blend the mixture well with the help of a blender for accuracy



Calcium Lactate Bath



After removing the fibre



Final Product

### III. BENEFITS:

1. The edible water bottles are extremely cost efficient costing less than a rupee.
2. Plastic components are harmful to the digestive system of human body. Hence, these water blobs provide a safe consumption of pure water free from harmful chemicals.
3. They can be used in industries as well as laboratories where it replaces the concept of storing water in metal or glass containers.[ Cost of metal containers costs around Rs.250 per container whereas one blob accounts for approximate Rs.0.50]

4. The blob is rich in calcium minerals. Thus a general crowd who lack calcium nutrients can cover up this loss through daily consumption of edible water blobs.
5. The product is easily portable and small in size, thus saving up space in various fields being applied at.
6. Beneficial in medical fields. Chemicals can be easily mixed in the blobs without altering the composition.

#### IV. OBSERVATION:

1. Non rigid, semi solid, jelly like blob is formed.
2. Tastes just like water and slightly salty in taste.
3. Slightly yellowish in colour(depends on sodium alginate content)

#### V. CONCLUSION:

1. Superb alternative to plastic bottles.
2. Cost efficient; can be used in industrial fields and medical fields.
3. Provides calcium as an essential nutrition.

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