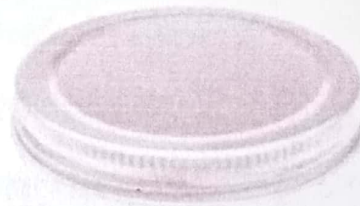


# ALOE VERA HAND SANITIZER

Make Your Own  
**Hand  
Sanitizer**



Common  
household  
Ingredients!





Chh. Shivaji shikshan mandal, vaduj

**DADASAHEB JOTIRAM GODSE ARTS COMMERSE & SCIENCE COLLEGE ,VADUJ**

Academic year 2022-23

Department of chemistry

BSc III

Project report on

**ALOE VERA HAND SANITIZER**

Under the guidance of

Miss. Nandgaonkar p.s.

submitted by.

name- **Jadhav Arati appasaheb**



*Shikalgar*  
Head of department.  
s.s.shikalgar.

Examiner.

*NPS*  
28/05/2023  
Subject Teacher  
Nandgaonkar p



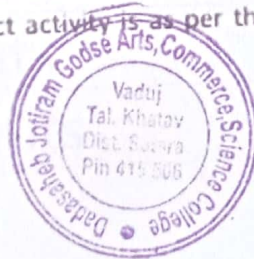


# CERTIFICATE

## DEPARTMENT OF CHEMISTRY

This is to certify that miss Jadhav arati appasaheb class B.sc III has satisfactory completed the project work entitled.

To analysis the available **aloe Vera** for presence of different **Vitamins and minerals** on academic year 2022-23. This project activity is as per the curriculum of B.sc. part III (Chemistry/Shivaji University, Kolhapur)



Examiner.

*shikalgar*  
Head of department

s.s.shikalgar

*NB*  
*25/01/2023*  
Examiner.

Nandgaonkar .p.s

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# ACKNOWLEDGEMENT

In the accomplishment of this project successfully many people who best have owed upon me their blessings and the heart pledged support, this time I am utilizing to thank all the people who have been concerned with this project. Firstly I thank god for making me able to yield within the span of completing this project. Then I would like to thank my CHEMISTRY TEACHER and PRINCIPLE, whose valuable guidance has been what helped me patch this project and make it full proof success. My teacher's suggestion and instructions have served as the major contributor towards the completion of this project. Also, I would like thank my parents and friends who have helped me with their valuable suggestions and guidance, which have been helpful in various phases of the completion of this project.

## Introduction

The Aloe Vera plant has been known and used for centuries for its health, beauty, medicinal and skin care properties. The name Aloe vera derives from the Arabic word "Alloeh" meaning "shining bitter substance," while "Vera" in Latin means "true." 2000 years ago, the Greek scientists regarded Aloe Vera as the universal panacea. The Egyptians called Aloe "the plant of immortality." Today, the Aloe Vera plant has been used for various purposes in dermatology.

## History

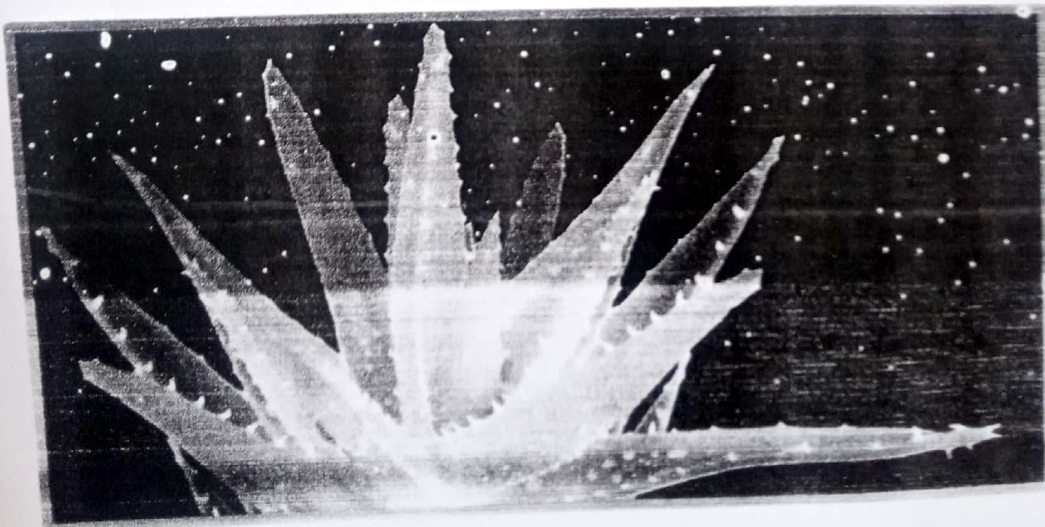
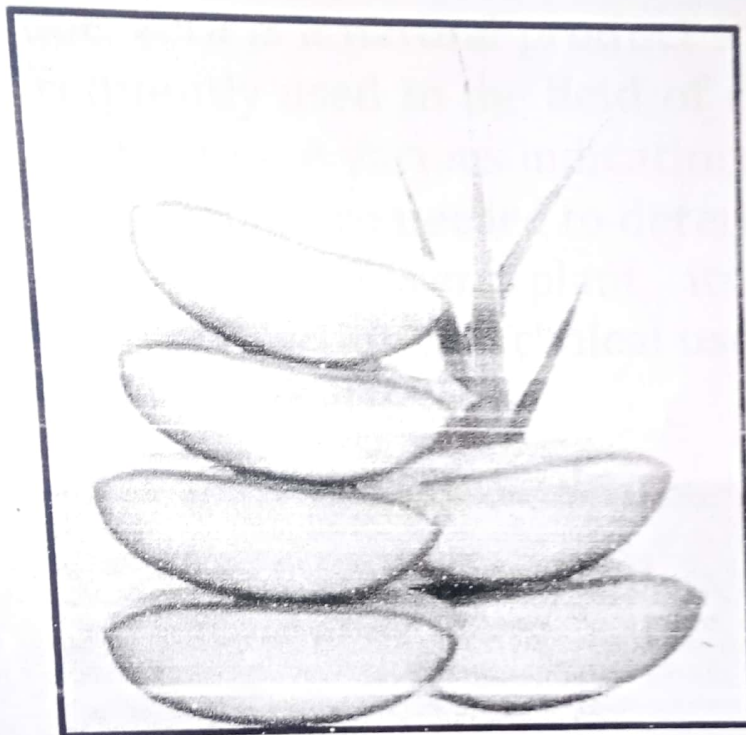
Aloe vera has been used for medicinal purposes in several cultures for millennia: Greece, Egypt, India, Mexico, Japan and China.<sup>1</sup> Egyptian queens Nefertiti and Cleopatra used it as part of their regular beauty regimes. Alexander the Great, and Christopher Columbus used it to treat soldiers' wounds. The first reference to Aloe vera in English was a translation by John Goodyew in A.D. 1655 of Dioscorides' Medical treatise De Materia Medica.<sup>2</sup> By the early 1800s, Aloe vera was in use as a laxative in the United States, but in the mid-1930s, a turning point occurred when it was successfully used to treat chronic and severe radiation dermatitis.<sup>2</sup>

1. **Active components with its properties:** Aloe vera contains 75 potentially active constituents: vitamins, enzymes, minerals, sugars, lignin, saponins, salicylic acids and amino acids.
2. **Vitamins:** It contains vitamins A (beta-carotene), C and E, which are antioxidants. It also contains vitamin B12, folic acid, and Choline. Antioxidant neutralizes free radicals.
3. **Hormones:** Auxins and gibberellins that help in wound healing and have anti-inflammatory action.

## WHAT IS SANITIZER ?

- To sanitize means to reduce the number of microorganisms to a "safe" level.
- One legal definition states that a sanitizer must be capable of killing 99.999% of a specific bacterial test population within 30 seconds.
- An alternate definition is that a hard surface sanitizer is a chemical agent that is capable of killing 99.9% of the infectious organisms present in a bacterial population within 30 seconds.

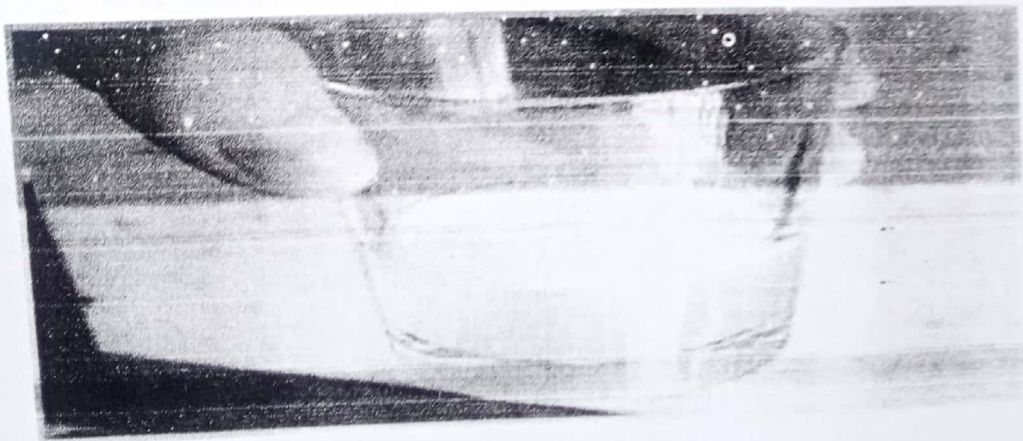
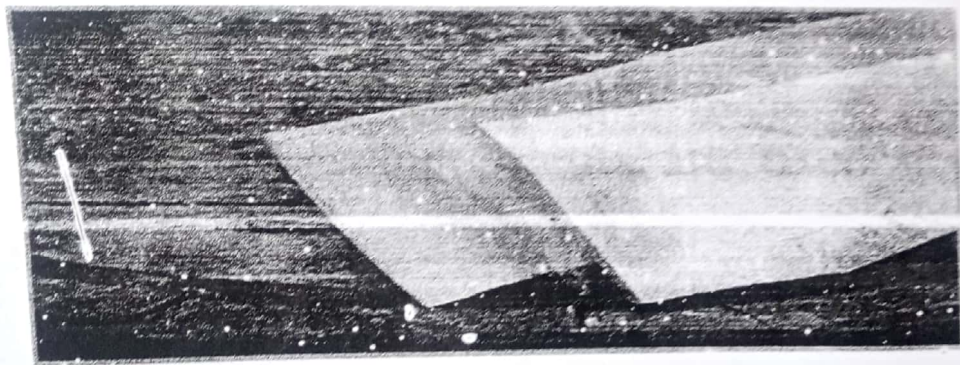
**AIM : PREPARATION OF ALOE VERA HAND  
SANITIZER**





## ABSTRACT

Aloe vera is a natural product that is now a day frequently used in the field of cosmetology. Though there are various indications for its use, controlled trials are needed to determine its real efficacy. The aloe vera plant, its properties, mechanism of action and clinical uses are briefly reviewed in this article.



## THEORY

In this project the materials are used :-

- Aloe Vera
- Coconut Oil
- Rose Water
- Isopropyl Alcohol
- Water

The main motive of the project is to use the hand sanitizer without harming the environment and using cheap and easily available materials. The materials used are seen very keenly before using.

Natural ingredients are used in this project.

PROCEDURE

How to make  
Hand Sanitizer at Home?

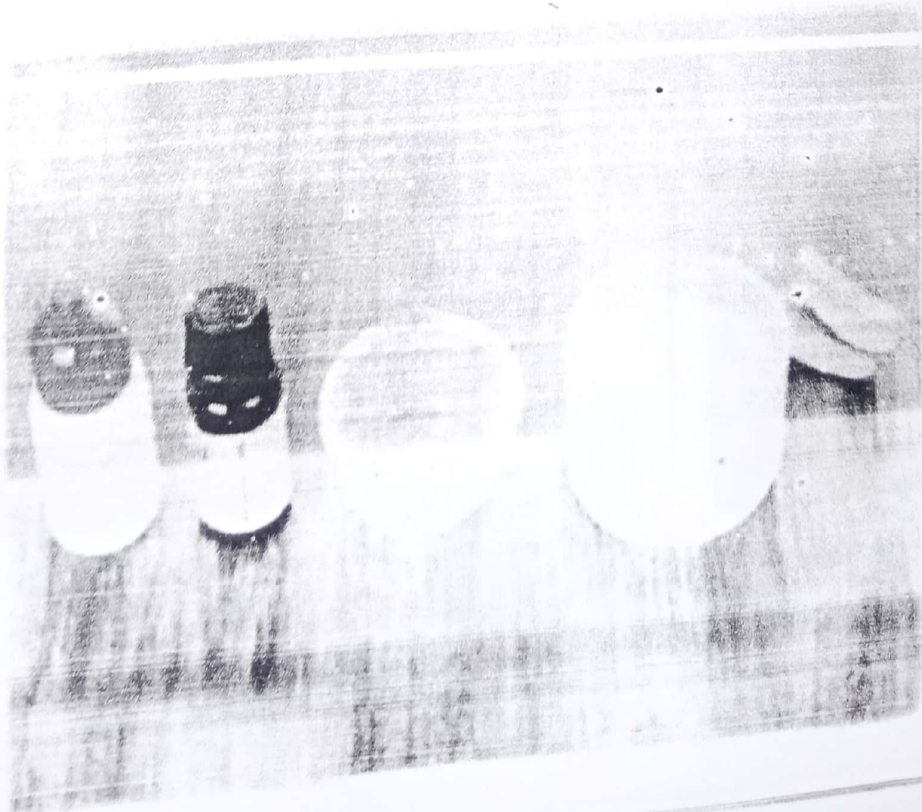


## PROCEDURE

Step 1.

Ingredients those are required in making this solution

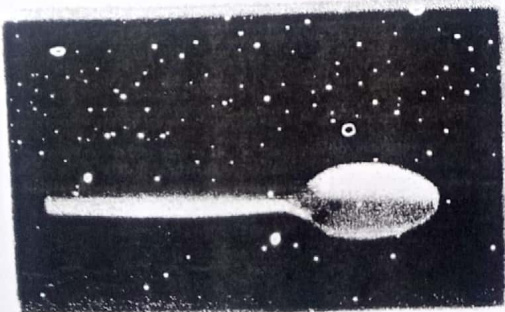
- 1 cup pure aloe vera gel (Preferably without additives).
- 1 ½ teaspoons Isopropyl Alcohol
- 30 drops coconut oil
- Mixing bowl /China dish
- Spoon
- Funnel
- Plastic container



## Step 2.

Make A mixture of the alcohol and aloe vera gel in the bowl.

- Pour the ingredients into the bowl and use the spoon to mix them together well.
- The mixture should be completely smooth.
- If you want the solution to be thicker, add another spoonful of aloe vera
- Or thin it out by adding another spoonful of alcohol.



### Step 3.

#### ADD THE COCONUT OIL TO THE MIXTURE

- Add its one drop at a time. In stirring as you go after about 8 drops smell the mixture to see whether you like scent. If it seems strong enough, stop there if you like a stronger scent, add a few more drops .
- Coconut oil have the added benefit of providing additional antiseptic properties to the mixture.
- If you do not like these scents, its fine to use whatever scent you enjoy.



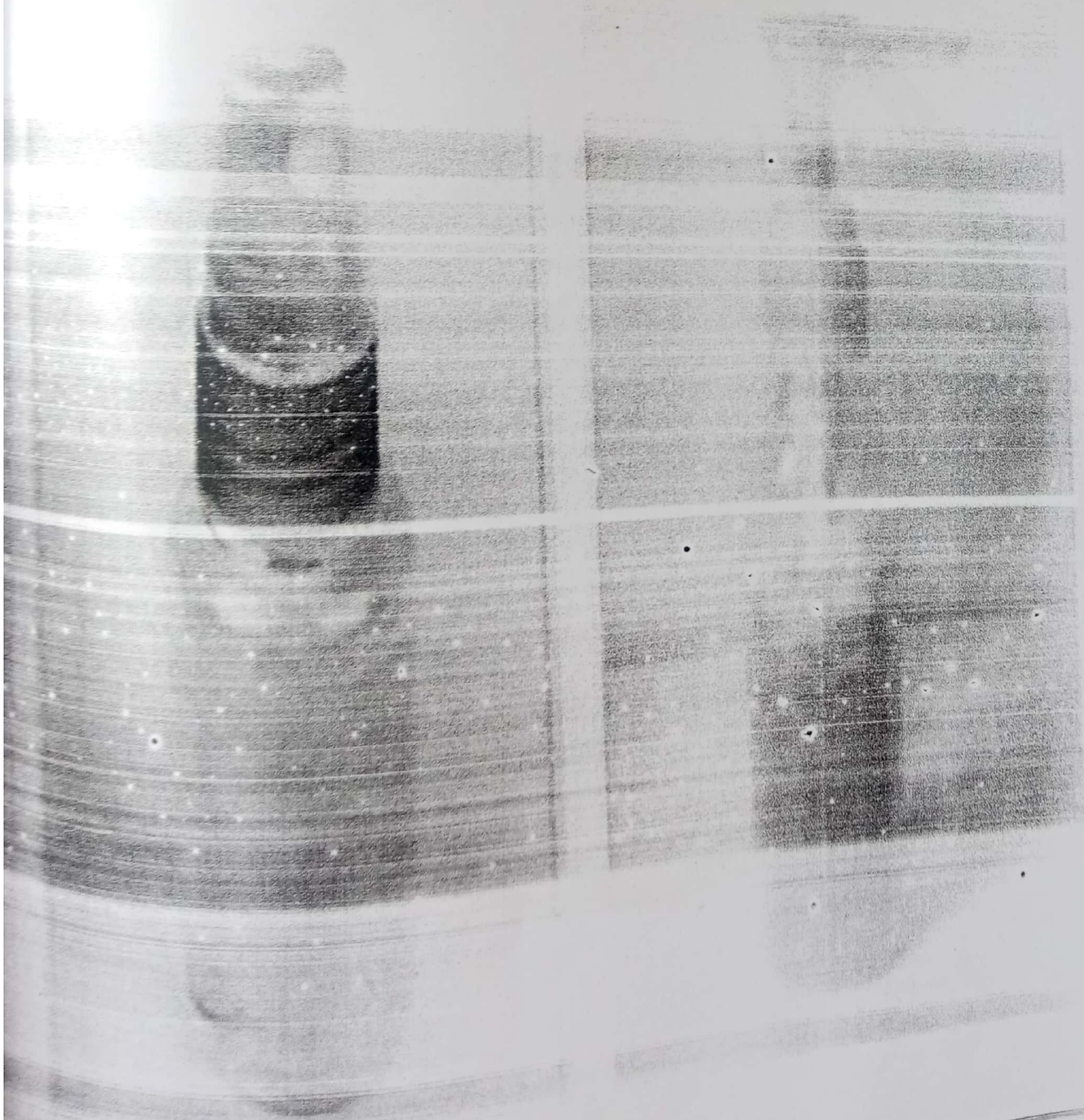
## Step 4.

### FUNNEL THE MIXTURE INTO THE CONTAINER

- Place the funnel over the mouth of the container and pour the hand sanitizer in fill it up then screw on the lid until you are ready to use it
- A small squirt bottle works well if you want to carry the sanitizer with you throughout the day.
- If you make too much for the bottle save the leftover sanitizer in a jar with a tightly fitted lid.



# NOW YOU ARE READY WITH HOME MADE SANITIZER





# FINDINGS

## *Findings*

At first we attempt to make an extraordinary hand sanitizer made out of Aloe Vera. But, what happened is our product looks more like a massage oil so we researched and proved that it is also appropriate to use aloe vera as an essential massage oil.

# BENEFITS

- Aloe Vera Protects against Infection. Many people are aware that Aloe Vera is a natural moisturizer and its gel-like consistency makes it perfect for use in hand sanitizers. ...
- Aloe Vera Moisturizes. ...
- Aloe Vera is a Safe Alternative to Harsh Chemicals. ...
- Aloe Vera Contains Powerful Antioxidants
  - It contains healthful plant compounds. ...
  - It has antioxidant and antibacterial properties. ...
  - It accelerates wound healing. ...
  - It reduces dental plaque. ...
  - It helps treat canker sores. ...
  - It reduces constipation. ...
  - It may improve skin and prevent wrinkles. ...
  - It lowers blood sugar levels

## **Result:-**

The Pure Organic Hand Sanitizer formed. Aloe Vera for presence of different Vitamins & minerals i.e. Vit A, C, B12, Folic acid, choline, Salicylic Acid and Amino Acids.