

VIMALA COLLEGE AUTONOMOUS-THRISSUR

REPORT OF INNOVATION ACTIVITY SUBMITTED UNDER SEED FUNDING

1. Name and address of the Faculty : **Dr Theresa C J, Assistant Professor & Head, Vimala College**
2. Mobile number and email : **9847198189, theresacj@gmail.com**
3. Department : **Chemistry**
4. Project Title : **C-Glow Sanitizer**
5. Broad Area and Sub areas of Research/Innovation/Start up Initiative : **Preparation of sanitizer for college purposes in the context of COVID - 19**
6. Duration (months) : **one**

The department of Chemistry had initiated a start –up programme C-Glow during 2018-2019 focusing on application of Chemistry in real life. We achieved our target by the manufacture of washing powder, cleansing liquid and hand wash. The products were distributed to the faculty and students of our College. We decided to continue this as our best practice in the forth coming years.

Objectives:

- i) To prepare sanitizer
- ii) Distribute the prepared sanitizer in our College
- iii) Illustrate the method of preparation of sanitizer to other institutions, on demand
- iv) Awareness on the safety use of sanitizer
- v) To be a part of the ‘Break the Chain’ campaign

Materials

WHO recommended alcohol based hand sanitizers for frequent hand hygiene, which are mainly made up from ethanol, isopropyl alcohols, hydrogen peroxides in different combinations. The ingredients were purchased from local market and sanitizer prepared in bulk by the team of faculty members and lab assistants of the Department. This was then packed in bottles and distributed among the staff of the College.

Methodology

[A] Preparation of hand sanitizer

- i) The alcohol for the formula to be used is poured into the large bottle or tank up to the graduated mark

- ii) Hydrogen peroxide is added using the measuring cylinder. It is used to inactivate contaminating bacterial spores in the solution and is not an active substance for hand antisepsis
- iii) Glycerol is added using a measuring cylinder. As glycerol is very viscous and sticks to the wall of the measuring cylinder, it should be rinsed with some sterile distilled or cold boiled water and then emptied into the bottle/tank. It is used as humectant, but other emollients may be used for skin care, provided that they are cheap, widely available and miscible in water and alcohol and do not add to toxicity, or promote allergy.
- iv) Aloe vera gel is to be added to hand sanitizer to provide moisture and nourishment to help balance the harsh drying effects of alcohol. It also adds some thickness to the hand sanitizer for easier and more effective application, adding to the important contact time of alcohol on your skin.
- v) The bottle/tank is then topped up to the 10-litre mark with sterile distilled or cold boiled water.
- vi) The lid or the screw cap is placed on the tank/bottle as soon as possible after preparation, in order to prevent evaporation.
- vii) The solution is mixed by shaking gently where appropriate or by using a paddle.
- viii) Immediately divide up the solution into its final containers and place the bottles in quarantine for 72 hours before use. This allows time for any spores present in the alcohol or the new/re-used bottles to be destroyed.



[B] Distribution of hand sanitizer

The prepared hand sanitizer was handed over to the Principal and the management. Staff members will be made available with the sanitizer as requested.

[C] Awareness programme

Awareness on how and when to use sanitizer, frequency to use it and adverse effects on skin was illustrated to both the staff and students.



Outcome of the project

1. By uptaking this project we were a part of the 'Break the Chain' campaign of the Government against COVID 19.
2. Illustrated the method of preparation of sanitizer to other institutions, on demand
3. Less expensive sanitiser was made available to the staff and students of the College

Scope of the Project:

The department of Chemistry had initiated a start –up programme C-Glow during 2018-2019 focusing on application of Chemistry in real life. We achieved our target by the manufacture of washing powder, cleansing liquid and hand wash. The products were distributed to the faculty and students of our College. We decided to continue this as our best practice in the forth coming years.

At the outbreak of COVID-19 in March 2020, we prepared hand Sanitizer being the need of the hour. Only preventive measures and healthy life style with efficient immune system have been suggested by WHO to fight and stay safe from COVID-19. WHO recommended alcohol based hand sanitizers for frequent hand hygiene to fight against this particular virus. C-Glow will continue to glow in the society.

Sl No.	Budget Head	Amount sanctioned	Expenditure
1.	Chemicals	20000	25180
2.	Sticker	150	400
3.	Bottle	1000	1915
4.	Aloeverae Gel	500	390
5.	Perfume	150	300
6.	Gloves, mask	200	817
	Total	22000	29002



Signature

Name and Address: Dr Theresa C J, Assistant Professor, Vimala College, Thrissur -9

Date : 12-3-2020