



ORGANIC INK

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ABSTRACT

This research aims for the preparation of organic ink and paints in natural way without the use of any chemicals as a substitute for ink and paint made using chemicals. The results of the analysis showed that organic ink is efficient to use.

Keywords- *Organic, Ink, Paint, Pigment ,Natural*

1. INTRODUCTION

The chief purpose of this project is to bring about methods which can be adopted to prepare ink and paints from natural ingredients. These natural ingredients are those which are commonly available and preparation methods are also easy.

2. OBJECTIVE

The aim is to prepare coloured ink from easily available natural ingredients. It could act as a great substituent for ink containing chemical compounds.

3. CURRENT MANUFACTURING OF INK

Modern day manufacturing technique involves use of solvents, resins, pigments, particulate matter, lubricants, etc. All these additives affect the thickness, appearance and flow. However, the two most important components of the ink are colorant and binder. Such manufactured ink can possess hazards to health due to repeated skin contact or accidental ingestion because compound Anisidine, heavy metal, non-renewable oil and volatile organic compound are used in manufacturing.

Following is the easiest way of ink preparation. :-



1. MATERIALS USED

- 1.1. Phyllathusrecticulatus (Pancoli)
- 1.2. Beta vulgaris (Beetroot)
- 1.3. Setcreaseapurpurea (Casita cuernavaca)
- 1.4. Garciniaindica (kokum)
- 1.5. Green Vegetables
- 1.6. Jasmine flowers
- 1.7. Onion
- 1.8. Vinegar (white & apple cider)
- 1.9. Clove oil, Alum, Salt

2. PROCEDURE

Sample 1: Red Ink

- Cut the leaves and stems of Casita Cuernavaca into small pieces of around one inch.
- The plant may be obtained as garden waste after trimming of the plant.
- The pieces are taken in a container and mashed when half a cup of water is poured.
- Start heating the contents on a burner and slowly add vinegar to the mixture. White vinegar works the best. Alternately, Apple Cinder can also be used.
- Increasing the Vinegar content will deepen the colour of the ink obtained.
- Clove Oil or a pinch of common salt can also be added to improve colour.
- Heating should be done for about 20 minutes.
- Now switch off the burner and cool the sample. After cooling add alum to it to prevent growth of fungus.



Sample 2: Black Ink

- Take the pancoli fruits in a cloth.
- Keep a utensil below the cloth.
- Squeeze the fruits to get black ink.

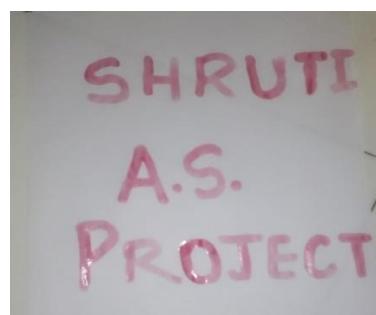


Sample 3: Pink Ink

- Take one beetroot and chop it into small pieces.
- Take a microwave safe bowl and fill half bowl with water.
- Add the pieces of beetroot and salt in the water.
- Firstly, microwave the mixture for 5 minutes.
- Then cool it again for 1 minute.
- Repeat step 4 and 5 until the beetroot becomes soft enough for squishing.
- Add water if required.
- Once the step 6 is over, take a clean cloth and one container.
- Place the cloth over the container and pour the obtained mixture.



- Drain all the extract of mixture through the cloth.
- Add a whole clove in the extract obtained in the container after draining.
- Again microwave the extract for approximately 2 minutes, until the mixture thickens little more.
- The final product obtained is the ink.



Sample 4:Brown Ink

- Take green vegetables, onions, green chillies, jasmine flowers, cucumber skin and other wet waste in a container.
- Add four cups of water and one tbsp common salt to it and start heating on the gas.
- After sometime add ginger to the contents to darken the colour.
- Now switch off the gas and filter the liquid ink.





3. PRECAUTIONS

For Sample 1:

- During heating, fumes of vinegar may cause suffocation.
- The room in which we are preparing the sample should be well ventilated.
- Common salt and alum should be added to prevent the growth of fungus.

For Sample 2:

- Handle the pancoli fruits with care as they are very delicate.

For Sample 3:

- Quantity of water in the mixture should not be more.
- The extract from the mixture should be obtained properly by squeezing the material in the cloth.
- Do not microwave the mixture continuously without cooling for at least 30 seconds. It can damage the microwave.

For Sample 4:

- Don't go very close to the container as the foul smell of the contents may be harmful.
- To reduce the foul smell spray air freshener.

USES

1. This obtained product can be used for painting purposes.



2. If filled in a refill under pressure with suitable thickening agent, it can also be used for writing purposes.

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