International Journal of Advance Research in Science and Engineering
Volume No.07, Special Issue No.03, April 2018
www.ijarse.com
IJARSE
ISSN: 2319-8354

WASTE MANAGEMENT AND RECYCLING

Yogam Oswal[1], Prof. M.V.Ghamande[2]

[1,2]Department of Engineering Science and Humanities, Vishwakarma Institute of Technology, Savitribai Phule Pune University, Pune (India)

ABSTRACT

The research paper is to spread awareness about waste management. Plastic and rubber contain harmful chemicals which have adverse affect on human health ,nature like causing of pollution , harm to animals .This paper also help to release people about waste management .People should make use of recyclable plastic or use alternative things which will help to reduce pollution .

Keywords*: Calcium Powder, Waste Plastic, Waste Rubber, Waste Oil,*

I. INTRODUCTION

This research started with the question of how can we make something so addictive and safe to consume by using waste of plastic, oil and rubber .Plastic ,rubber is a severe problem now days .It contain harmful chemical which pollute environment that is while burning it pollute air and its cannot be decomposed. .Now a days due to increase in population, development plastic and rubber waste have increased in a lot and no plastic and rubber management is done properly. We are take small step to overcome this problem by recycling plastic, rubber waste.

II. HEADINGS

1. Problems due to plastic and rubber waste:

1.1. As plastic and rubber is less expensive, it is overused. When it is disposed off in landfill sites, it does not decompose at a fast rate and hence pollutes the land and soil in that area. Due to polythene bags enter in soil it stops further passage of minerals, salts etc due to which the land gets affected and several problems occur to farmers which cause land pollution.

1.2. Many stray animals and aquatic animals end up eating plastic bags and bottles due to improper disposal systems, and this can cause to their death and endanger some of the species.

1.3. Blockage due to plastic and rubber accumulation may form breeding grounds for mosquitoes and other harmful insects, which might cause numerous diseases in humans.

1.4. Due to increases in plastic, rubber and waste oil not proper disposal of waste the quality of drinking water on our planet is deteriorating, as plastic , rubber and waste oil releases toxic chemicals.

1.5. There are many more problems occurring due to not proper disposal of plastic and rubber waste. In future there will more problems due to plastic and rubber on humans.

1.6. Burning of waste oil , plastic and rubber leads to air pollution and soil pollution .

2. Objective:

2.1. To reduce the waste and make a product use full from waste at a low cost and high quality.

2.2. The quality can be improved by making some further changes.

2.3. To raise awareness in developing countries and help them understand how waste can be reused and managed.

III. FIGURES AND TABLES:

3.1. Machines:

Grinder

Mixer (Makes Raw Material For Product)

Heating Mantle

Condenser:

Roller:

Product:

3.2. Content present in 1 kg product?

Mat	8kg
Pipes	1.5kg
Carbon	50gm (to give black color to the product)
Calcium –	4-5kg
Oil	1-ltr

Future Plan:

Plastics and rubber are "one of the greatest innovations which a man has made" and have truly made strong impact since last century. Plastic is lightweight, does not rust or rot, is of low cost, reusable, and conserves natural resources and for these reasons, plastic has gained this much popularity. The literature reveals the research made till now in waste management is not sufficient to reduce waste. However, there are many subsequent problems to be solved in the near future. The present issues are the necessary scale up, minimization of waste handling costs and production cost, and optimization byproduct from the plastic waste, rubber waste at a reasonable price. The huge amount of plastic , rubber produced and not proper waste management methods are causing lot of problems to the environment, human life, and some of the endangered species. My aim is to produce products from waste plastic, rubber, oil and to make it use full for the people at low price and to make the product recycle able after use and pollution free. The topic which I am been working is very unique and affordable in which we use all the waste products like plastic, oil, carbon powder etc. The product

manufactured is recyclable and zero percent waste is produced the manufacturing defect products can also be recycled and no loss. Future plan is to experiment and make a new products from waste and to take care of hazardous plastic waste and make proper disposal things Challenge is to develop the standards for process and products of postconsumer recycled waste and to adopt the more advanced technologies for waste plastics, rubber, oil referring to the observations of research and development in this field. Also, analysis would help reducing the capital investment and also the operating cost and thus would enhance the economic viability of the process. Government is also helping people and encouraging them to do research in these fields and making new schemes for them. Consumers should understand and start using the recycled products so that it would help them to save money by buying same products at cheaper price.

IV. CONCUSION :

This is a proposed work and potential topic for future research. All the waste used are taken from waste .All the waste used is available in negligible quantity. All the waste are found to be harmful for nature so we use them and make a useful product out of it. People should promote and use this product for future generation.

V. ACKNOWLEDGEMENT

We are pleased to recognize Prof. M V.Ghamande for her invaluable guidance during the course of this project work.

The project would have been an uphill task without Prof. M.V. Ghamande continuous direction and unwavering support.

We are all also grateful to the other members of the Chemical Engineering Dept. who co-operated with us to use their sophisticated instruments and assisted us in getting past every hurdle.

Last but not the least, we wish to take this opportunity to thank Prof.(Dr.) C. M. Mahajan, HOD DESH for his steady commitment and backing.