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GREEN ALERT

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Green Issue

The focus of Environment Information System (ENVIS) is to disseminate environmental information to decision makers, policy planners, scientists and researchers across the world.

The CERC-ENVIS Resource Partner focuses on 'Environment Literacy - Eco-labelling and Eco-friendly Products' This bi-monthly e-bulletin features latest news, developments and innovations in the field.

Mask Disposal

According to a report by the Central Pollution Control Board (CPCB) India generates about 101 Metric Tons per day. (MT/day) of COVID-19 related biomedical waste. This quantity is in addition to the normal biomedical waste generation of about 609 MT/day. (Source: https://bit.ly/33Qjdwn). Due to COVID-19 pandemic, there is a rise in usage of masks, gloves and other personal protective equipment. Wearing a mask in public has been made mandatory by the government which has increased the casual disposal of the used mask on to the streets. This has lead to a new type of pollution called "mask pollution". Majority of masks that are manufactured uses plastics which do not break down easily & have a long lasting effect on environmental pollution if not disposed of properly. As the countries lift the lockdown, millions of mask are needed each day globally, which also requires the need of better handling practices to stop it from becoming an environmental disaster.

Unsafe disposal of masks are the potential carrier of the deadly coronavirus which affects the human health & environment. Improper disposal of mask also poses a risk to the health janitors such as waste collectors, rag pickers, street sweepers. It may also affect the lives of stray animals. Discarded masks are threat to the aquatic organisms, if disposed on beaches or in/around any water bodies.

Ministry of Health and Family Welfare, Directorate General of Health Services has provided Guidelines on use of masks by public (https://bit.ly/2H0PVCk). The guidelines clearly indicates the methods to dispose the mask which has to be followed strictly to fight with the deadly virus. Also, Central Pollution Control Board (CPCB) has provided guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients (https://bit.ly/30ZucBA). It indicated that masks & gloves used by everyone, whether infected or not, should be cut & kept in paper bags for minimum 72 hours before discarding.

Eco product

Eco brick

A significant source of contamination amidst the COVID-19 pandemic is used gloves, PPE kits and single use plastic products. Dr. Binish Desai popularly known as "The Recycle Man of India" has come up with a sustainable solution of Eco - Bricks using these non woven plastics. Eco bins are used to collect discarded PPEs. After following proper sanitation protocols, 52% of PPE materials are shred 45% industrial paper waste procured from paper mills are added, and then mixed 3% with binder to make an eco - brick. The mix is kept for 5-6 hours before being set in molds. The bricks are naturally dried for three days and the product is then ready for commercial use. The new bricks will be sold at the same rate as the P-Block i.e at Rs.2.8 per piece.

Source: *https://bit.ly/3dl8OMe*

Eco news

Sterilize & recycle 80,000 protective masks daily

"Critical Care Decontamination System" was quickly invented and refined by the Ohio-based science and technology company Battelle. A Decontamination system which will be able to clean and sterilize up to 80,000 protective N-95 respirator masks every day that could help solve the shortage of masks for healthcare professionals fighting the COVID-19 pandemic. It uses vaporized hydrogen peroxide and alcohol to clean and sanitize used masks which would have otherwise been tossed in biohazard bags after a single-use. It received a rush "emergency" approval from the FDA after it was proven to be effective in sanitizing a single mask up to twenty times after use in contaminated conditions. "The decontamination procedure is about three and a half hours, followed by several hours of aeration to get to a level where staff can re-enter that space," said Will Richter, Principal Scientist at Battelle.

Source: *https://bit.ly/3iTATeR*

From face mask to Biofuel

Plastic from used personal protective equipment (PPE) can, and should, be transformed into renewable liquid fuels. Researchers at India's University of Petroleum and Energy Studies say they've identified a way to turn unpriced dented amounts of disposed personal protective equipment (PPE) plastic into biofuels. This is a chemical process for breaking down plastic at high temperature between 300-400 degree centigrade for an hour without oxygen. In particular, they focused on the structure of polypropylene, its suitability for PPE, why it poses an environmental threat and methods of recycling this polymer. Co-author Dr. Bhawna Yadav Lamba says: "The challenges of PPE waste management and increasing energy demand could be addressed simultaneously by the production of liquid fuel from PPE kits. The liquid fuel produced from plastics is clean and have fuel properties similar to fossil fuels."

Source: *https://bit.ly/36W2edV*

Eco tip

Let the earth breathe easy!

While fighting against the deadly virus, let us not forget to save our environment & learn to put the used mask in their right place.

Visit CERC-ENVIS website www.cercenvis.nic.in and https://www.facebook.com/EcoProductsEcoLabeling to know more about our activities.

Consumer Education and Research Centre

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