

MOSQUITO RE-COIL

Mosquito-repellent Textiles



PROBLEM

The global mosquito repellent industry has been growing rapidly owing to global warming and **rises in number of mosquito-borne diseases** such as dengue, malaria, and Zika. The worldwide incidence of dengue hemorrhagic fever has risen 30-fold in the past 30 years.

In the Philippines, dengue is the most common among mosquito-borne diseases. Per DOH report, in 2017, a total of 131,827 dengue cases were reported nationwide. Ages of cases ranges from less than 1 month to 98 years old wherein most of the cases (22.2%) belonged to the 5-9 years age group. There were 732 deaths reported.

Because there is still **no effective vaccine available to control such diseases**, prevention is usually done through application of mosquito-repellents on skin. However, the **topical repellents lasts only for a few hours** while **some are considered harmful** as they are being applied directly on skin.

SOLUTION

Mosquito-repellent textile and textile products, made from natural textile and using non-toxic active ingredient, provide protection against mosquitoes up to 6 days per activation. Through surface modification technology applied onto textile, it can hold the active ingredient, release it through time and allows replenishment of active ingredient for prolonged protection against mosquitoes and mosquito-borne diseases.

COMPETITIVE ADVANTAGE

- Core technology easily adoptable to existing textile finishing mills
- Made from non-toxic active ingredient and natural textile

- Safe to use and reuse
- Replenishable, provides longer lasting protection versus products existing in the market
- Customizable, can be converted or incorporated into various products not limited to wearables, home textiles and decorative pieces

TARGET MARKET

1. Textile finishing mills for the production of mosquito-repellent textiles
2. Apparel, home textiles, and craft manufacturers

TARGET USERS

1. Families (especially children and pregnant mothers)
2. Travelers/Nature enthusiasts

STATUS

- Three (3) Utility Models granted by the Intellectual Property of the Philippines valid until 2022
- Developed prototypes of various textile products such as ID lanyards, patches, lamps, home textiles with mosquito-repellent property to demonstrate possible application of technology
- Ongoing field testing
- Looking for partner textile finishing mill and manufacturer of apparel/home textiles/craft

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