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KHI Products for Asthma & indoor allergies: DME-100RM

K-HART International (KHI) produces series of preventive products for Asthma and other allergies such as Hay fever, runny nose, Eczema, watery eyes. The products are completely free from chemicals, children & Pet safe, and light weight. Some of the new products in the market by 2009 are Universal Dust mite eliminator which can be easily use with house hold vacuum cleaner, Dust mite eliminator travel mate-travel pack, **Dust mite eliminator Room mate**, and Dust mite eliminator pet brush. These products are well researched and proven for significant reduction of dust mite population which causes major allergies such as Asthma, eczema, and Hay fever. Dust mite eliminator room mate is intended for indoor use.

As you know Asthma is triggered by dust mites' feces, dead mites, skin flakes, mould and contaminated moisture stagnated inside houses. Dust mites are microscopic creatures hardly seen by naked eye. The length of a dust mite is not exceeding 420 μm and width from 250 to 320 μm . They are globular shape and having a translucent body with long hair on their striated cuticles. They have 8 hairy legs.

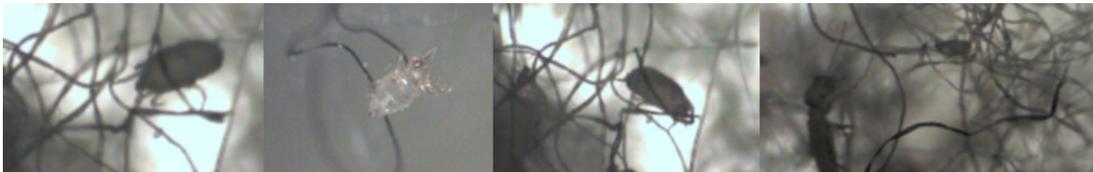


Figure 1.

Various microscopic insects live with us causing allergies.

Dust mite do not bite or sting but harbor strong allergens in their bodies as well as in their secretions, excreta and shed skins. Constant contact with these allergens can trigger respiratory and dermatological complaints in some humans. Dust mites have a rudimentary alimentary system (no stomach) and require most digestion to occur outside their body. For this reason they secrete enzymes and deposit the fungus *aspergillus repens* on dust particles, to enable the fungus to pre-digest the organic matter with its enzymes. Dust mites eat the same particle several times, only partially digesting it each time.

We found that several thousands of dust mites live in pillows, mattresses, bed covers, surrounding & underneath of beds, and carpets. Some times the number exceeds to several millions. In addition to the dust mites above mentioned, there are few other

microscopic mites also live with them. They all carry translucent bodies. Figure 1 is shown various mites that were found in bed sheets, mattresses, pillows, and carpets. Unfortunately they are not visible in naked eye to remove them. The dust mites move actively thro thin fibers of dust particles. With a vacuum cleaner it is hard to remove all the dust mites as they are held to the thin dust fibers and move against vacuum flow. In addition to thin fibers, there are dead mite bodies, dust mites' feces, dead human skin flakes, human hair, and other foreign matters are existed in dust. It was revealed that dust mites can not fly or move freely in the air without any lumps of dusts. They can be found under the bed with foamed dust some times.

The products that we have designed are used to destabilize dust mites from their quick movements in dust fibers and also to affect their watery bodies in different directions so their body fluids do not function properly. As a result they either die or slow down their movements in dust. Our experimental investigation shows that most of the adult dust mites survive maximum 15 minutes with DME-100RM product. It was observed that first 5 to 15 minutes, dust mites struggle to balance them-selves in larger areas, then slowly dropping from one fiber to another and in another few minutes most of them come to a stand still position. In laboratory tests we have attempted to excite them by a thin rod, but they do not respond to it and drop through dust fibers to the Microscopic dish.

Figure 2 shows the product of dust eliminator travel mate: DME-100RM.

DME-100RM is recommended to use permanently in bed rooms. This product can be used in Hotels, motels, hospitals, schools, and other indoor places in buildings where thick carpets, thick curtains are used. The eliminator's emitter head can be tilted to any angle in any direction to spread the dust mite eliminating waves to any hidden corners of carpets, bed, or on mattress, pilows etc. The product usually comes with an AC adapter to straightaway plug into wall sockets. DME-100RM could be designed to run with batteries as well.

This product is plugged into wall socket and manually tilts the eliminator head to a direction you want and switch on manually. It begins to destabilize dust mites immediately and eliminates them eventually. The dead bodies and unbalanced (destabilized) dust mites could be absorbed by vacuum cleaner then. In this way dust mites can be removed completely from indoors. This leads to drastically minimize dust mite allergens which cause Asthma, Eczema, hay fever, runny nose, watery eyes, and itchiness. Adapter of Dust mite eliminator –Room mate is universal so it can be used without any additional plug attached to it.

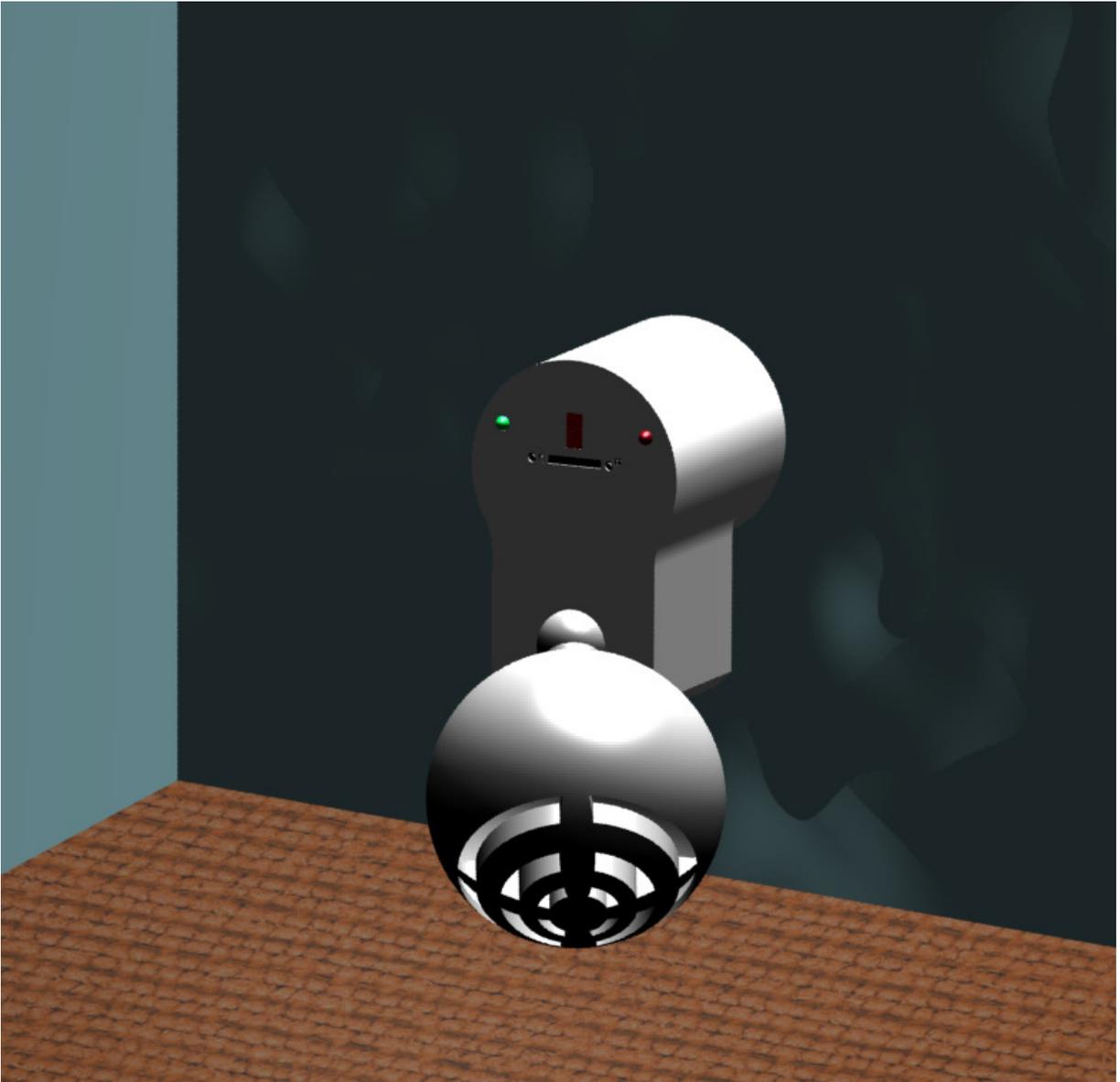


Figure 2.

Dust mite eliminator Travel mate-DME-100RM

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