

## **Lacquer based Coating of Rodrepel®™**

Rodrepel®™ is also available in the Lacquer form. For certain applications, the master batch form of the product cannot be used as it requires a topical application. In these instances the lacquer form is used for a number of applications.

The lacquer form of Rodrepel®™ was developed specially by C Tech Corporation for coating and topical applications.

### **Coating Applications and Uses**

#### **Railways:**

In trains the rodent problem is severe. They are a nuisance to travelers as well as a carrier of diseases.

To deter rodents the lacquer based coating is used to coat the undercarriage and walls of the railway coaches as well as the galvanized surfaces of the pantry. These coaches were tested by putting them in running condition. A large difference in the number of rodents was found. This method also doesn't have the problems of baiting and use of toxic pesticides as well as disposal of caught rodents.

#### **Wires and Cables:**

Existing wires and cables face damage due to attack from rodents gnawing on them. The lacquer can be used to coat the wires and cables protecting them from rodent attack. In this case replacement of the wires and cables is avoided.

Thus even existing wires and cables which would need to be changed in case of rodent damage can be protected with the lacquer.

#### **Pest protection in homes:**

The Rodrepel®™ based lacquer is also used for pest protection in homes and residential areas. It can be used to coat the interiors of the structures to deter rodents.

### **Salient Features**

- Non-toxic
- Non-hazardous

- Environmentally safe
- Acts as an aversive
- Can be customized according to customer requirement
- Suitable for a number of solvents
- Not a deterrent to humans
- No toxic fumes
- Life Span depends on final coating application
- Safe for use by workers

### **Project with Indian Railways**

The Indian railways are the largest railway network in Asia transporting about 30 million passengers and more than 2 million tons of freight daily. Rodents are one of the biggest menaces faced by the railways being a nuisance to commuters as well as a carrier of diseases.

The pantry coach is usually infested as rodents use it for food and shelter. Railway coaches are also a breeding ground for insects like termites, cockroaches, bedbugs and lizards.

Conventional treatments such as fumigation, using glue boards, rodent traps, use of toxic rodenticides and insecticides have limited effectiveness and are also unhygienic as well as toxic.

To overcome the pest problem in trains and also to provide a suitable solution C Tech Corporation developed the lacquer based solution of Rodrepel®™. C Tech Corporation has undertaken extensive testing in various zones of the Indian Railways- the South Western zone, the Konkan zone, Northern Zone and the Central zone.

The entryways and other areas vulnerable to the pests were treated with the lacquer.

The undercarriage and walls of the coaches as well as the galvanized surfaces were coated with the lacquer based Rodrepel®™. The interiors of the pantry coach and AC coach were painted in the case of the Konkan Trials. The window sides, seat corners, electric board, pantry storage area, dustbin, lavatory, bed linen storage area were all coated with the lacquer.



The coaches were put in the rolling stock and tested along with coaches which were not treated running along the same route at the same time.

After this a testing protocol was followed along with inspections by representatives from C Tech Corporation along with Konkan railway

The inspections of the treated coaches as well the untreated coaches were carried out. A feedback was also taken from the representatives, the attendants and personnel in the coaches. Every 2 months a complete inspection of the treated coaches was carried out. The gas room, which is one of the most common places rodents are present as it provides a dark place for rodents to hide, the main kitchen room which is one of the main breeding grounds for pests due to the food present, the pantry manager and pantry staff rooms as well as the food storage room were all checked and no pests were found. A large difference was found in the pests seen in the coaches which were treated with Rodrepel®™.

Rodrepel®™ being completely non-toxic and non-hazardous and environmentally safe is ideal for use even in pantry car and can safely be used to deter the rodent problem.

### Usage

The Lacquer coating is easy to use and apply. The Rodrepel®™ is mixed with the lacquer in a ratio of 1:100 by simple mixing and the surfaces are painted. The mixture is blended by means of a blender before application. After which the paint was applied to the surface to be coated in uniform strokes. Standard painting procedures are used.

Wooden surfaces and walls require 1 coat while galvanized surfaces require 2 coats.

A total of 50 ml of the lacquer is needed per square foot to be coated on a double coating basis.

Smaller objects may also be coated by dipping in the lacquer.

