



Military bases and applications endangered by pests

The Problem

Pest infestation in crucial sectors like the defence has proven to be extremely dangerous. The Army, the Airforce, and the Navy alike have been battling this menace for a very long time. The absence of a foolproof method has led to this becoming a recurring problem.

Many incidences of problems of bedbug and cockroach infestation in training stations, power outages in bases due to rodents, squirrels, and other pests causing damage, and maintenance nuisance have come to light.

With a blend of green chemistry and smart technology, C Tech Corporation has developed an environment-friendly, non-hazardous, non-toxic, non-mutagenic, and non-carcinogenic product range to fight the problem without killing the pests.

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The Army Base

Insect and rodent pests find it very easy to enter into the military bases and camps. Cracks and holes in the storage room doors, through utility pipes and vents, along with luggage, etc. are some of the common means of entry. They find an abundance of food and other polymeric applications that they are drawn to and can feed on. Once inside, they quickly look for safe, dark corners and make themselves comfortable there.

An abundance of food and other polymeric materials they are attracted to make living and feeding very easy for these pests.

The electrical circuit stations, transformer areas, RADAR and sever rooms have plenty of wires and cable which contain these aromatic plasticizers that rodents and other insects are attracted to. They start gnawing and chewing on these wires leading to immense damage to these systems.

FUKUSHIMA NUCLEAR PLANT STRUGGLING WITH RAT PROBLEM

The Telegraph

"Japan's damaged nuclear power plant is suffering from a growing problem with rats. Operators of Fukushima nuclear power plant have confirmed they were forced to halt the cooling of a spent fuel pool in order to remove two dead rats.

It was the third time in five weeks that critical cooling equipment has been forced to go off line at the plant in northeast Japan due to rodents.

"Two rats were found dead inside the low voltage transformer box at Fukushima Daiichi,"

HOW ONE NUCLEAR MISSILE BASE IS BATTLING GROUND SQUIRRELS

The Smithsonian Magazine

In Montana, squirrels have been tunneling under a base's fences and setting off intruder alarms, prompting researchers to strengthen its defences.

The silos are scattered over some 23,000 square miles, so in some cases, simply traveling out to check out a false intruder alarm requires a substantial investment in time and resources.

Additionally, over time, the rodents have started damaging the base's physical infrastructure.

"They're burrowing under foundations, undermining road beds and gnawing on cables,"



The Navy

Pests, anywhere, are extremely tiresome to deal with. However, pests in enclosed spaces like ships and submarines, especially have a record of being absolutely unmanageable. The fact that such vehicles are cut off from land for many months at a time makes it difficult to get the pests off-board.

Rats and insects on ships and submarines have been reported globally many a times over the years. Storage areas, kitchens, sleeping areas, etc. become the hot spots for such infestations. The ropes that secure these vessels to the pier, access ramps that are placed, faulty pipes and vents, rope hulls are some of the common entry points for these pests into ships and submarines. They can also be brought accidentally along with passenger/sailor luggage.

A lot of these pests can be found near the bedding racks and areas, kitchen and pantry and around waste and trash disposal. Bedbug and rodent infestations aboard ships have been reported globally and a lot of the common measures taken against the pests prove to be ineffective due to the recurring nature of the problem.

The sailors and on-board crew members experience extreme trauma because of the nature of the infestation. All the pests on-board are a constant hazard to everything else on the vessel.

US NAVY SAILORS HAVE BEEN BATTLING A BED BUG INFESTATION ABOARD AN ATTACK SUBMARINE

Business Insider

Sailors aboard Seawolf-class submarine USS Connecticut, one of the US Navy's most capable attack submarines, have been battling a bed bug infestation.

Naval Submarine Force Pacific said in a statement that the Navy launched efforts to find and eliminate the difficult-to-kill bed bugs after the problem was first reported December 2020, explaining that the "physical presence of bed bugs" was found in February 2021."

SQUIRREL LEAVES U.S. NAVY BASE INCOMMUNICADO

Xenophilia

One naval installation has discovered a new menace, capable of knocking out key communications in a matter of seconds.

The problem began when a squirrel came in contact with an electrical transformer. The rodent was electrocuted and the transformer exploded, knocking out power for a time, and seriously damaging a key component of the base phone system. Since then, callers to the installation have heard nothing but busy signals, and weapons station personnel have been unable to reach anyone, on or off the base.



PENTAGON ON EMERGENCY SHUTDOWN AS CRITICAL COMM CABLE SEVERED

D C Media Group

A main fiber optic communications cable was severed at the Pentagon, forcing the Department of Defense to shut down all critical functions and seal off its headquarters for emergency repairs. All 40,000 Pentagon personnel are being told to expect to stay home for as much as two weeks beginning April 1, 2019 until the damage can be fully assessed and service restored.

A groundhog is being blamed for incapacitating the command center and symbol of the world's largest military.

The Airforce

In the Airforce as well, the communication systems, the cables, etc. that are set up at the bases have a constant threat of being damaged by pests. The server and the control rooms, which have to be functioning constantly to keep the communication systems up, should always stay protected from all sorts of damage. The consequences otherwise, can be devastating.

Many incidences of the communication systems being rendered incapable because of rodent damage have surfaced.



The Sustainable Solution

Our products, Rodrepel™ - the anti-rodent and anti-animal compound, Termirepel™, the anti-insect, and anti-termite compound, and Combirpel™, the anti-animal, anti-rodent, anti-insect and anti-bird compound, are engineered using a unique set of complex compounds. They work on the mechanism of repellence and combines the best of chemistry and green practices to give an environmentally safe product which keeps pest away effectively while at the same time guaranteeing safety to the environment.

Our contribution to the environment has always served as the basis of all our business practices. We are the first-ever organization in the world to get EU BPR approval on our product range, which proves our commitment towards sustainability and the environment.

Our masterbatch is thermally stable at the highest polymer processing temperatures and it works on a sustained release mechanism. An active ingredient is encapsulated in a polymer matrix and the product keeps the polymer matrix intact. The masterbatch can be combined with any polymer during its manufacturing.



We are the first-ever organization to receive approval from EU-BPR (European Union - Biocidal Product Regulation) on our unique product range!



The Sustainable Solution

These polymers can then be used to make cable sheathing for optical fibers or power cables, polymeric equipment including RADAR, communications systems, etc. It can also be used to make rubber tyres, seat covers, utility pipes, trash cans, etc. which can be used in military bases.

Rodents running around the mines create a mess for the people working there because the mines do not exist as per the markings done and may lead to an explosion. Our product masterbatch can be included in a sheet to cover the mines and protect them from rodents. They can also become a part of the cables and pipes laid underground.

Our liquid concentrate is compatible with all types of paints and solvents without altering the properties of paint. It can be mixed with paints in a predetermined ratio and can be applied to walls of the kitchen, equipment storage room, bedding area, interior and exterior of aircraft, bunks, etc. Termirepel™ bedbug repellent can be sprayed on mattresses and linen to prevent bedbug infestation.

Lacquer is a topical application that is compatible with most surfaces such as wood, ceramic, polymer, cement, etc. It gives a transparent finish to the applied product and does not wear off easily.



Our envirosafe pest aversive masterbatches are compliant with the Naval Cable Specifications designed in 2019



The Sustainable Solution

Lacquer can be used for epoxy floorings, already installed wires and cables, and windows. Wood polish additive is specially designed to preserve wooden articles such as wooden pallets, racks, or storage boxes.

The ready-to-use spray can be sprayed on any surface and gaps. The aerosol spray is also compatible with steel or metallic surfaces. The Sticky sprays are specially meant for protecting the wires and cables. Non-sticky sprays can be used in kitchens, control rooms, over the deck, galley areas, bedding areas, etc.

Along with all these existing forms our products are available in, we also plan to develop insect repellent army uniforms. Termirepel™ can be incorporated into the uniforms to make them insect repellent and this can be done using a textile finish.

Developing a novel, non-toxic, textile system for use in military clothing that will hinder arthropod-human contact and reduce the risk of exposure to insect-borne disease will greatly help the armed forces in their missions.

We comply with international standards of regulations. All our products are EU BPR, RoHS, RoHS2, RoHS3, NEA, APVMA and REACH compliant.

We are also US FIFRA exempted.



*For more information,
visit our websites:*

www.ctechcorporation.com

www.rodrepel.com

www.termirepel.com

www.combirepel.com

