



## Dataguard Solutions announces the launch of Dataguardian™; the cure for zinc whiskers.

### Zinc Whiskers and Data Centre reliability

Data Centres often contain large amounts of galvanised (zinc plated) steel. The steel used for structural supports is galvanised to stop it from rusting, and thus introducing iron oxide flakes into the sensitive environment.

The zinc plated steel can however grow zinc whiskers. These whiskers are long and light, and when they separate from the galvanised surface they are easily swept around the Data Centre by the cooling air. As these whiskers are made of a conductive material (pure zinc) they are capable of shorting components within the computers, causing random, often unexplained, failures.

This phenomenon whilst not fully understood is very well documented. Further details may be found on the NASA site here: [http://nepp.nasa.gov/Whisker/other\\_whisker/index.htm](http://nepp.nasa.gov/Whisker/other_whisker/index.htm).

### Dataguardian™

Dataguardian™ is a coating that may be applied to virtually any non-electrical surface in a Data Centre. It is particularly intended for application to the galvanized (zinc plated) steel structures comprising the raised floors, cable handling solutions, racks and air handling systems. It may even be applied to the galvanised housings used to hold computers, routers and other sensitive electronic equipment. Zinc whiskers that may be present on the galvanized steel do not need to be removed first. Whiskers that are present will be contained by the application of the coating, as will new whiskers that may grow or old whiskers that continue to grow.

The Dataguardian™ coating is a waterborne, mould resistant, non-hazardous product similar in nature to emulsion paint. It is designed to be applied by brush, roller or spray equipment. It may be applied to new galvanised surfaces at manufacture, or to old galvanised surfaces in the Data Centre. If it is applied to a galvanised surface with existing zinc whiskers, it will encapsulate them completely.

A single coat of Dataguardian™ is sufficient to fully captivate over 99.9% of zinc whiskers for a period of 20 years or more.

Dataguardian™ has a naturally tacky surface once dry which tends to acquire airborne zinc whiskers. This offers enhanced protection in instances where it has not been possible to obtain 100% coverage of galvanised surfaces in the Data Centre.

Dataguardian™ was developed subsequent to research funded by the US Missile Defense Agency for the captivation and containment of Tin whiskers. Tin whiskers are a global problem following the RoHS legislation introduced by Europe which removed lead from solder. Dataguardian™ is



formulated to captivate zinc whiskers and is not suitable as an electronic conformal coating to captivate tin whiskers on circuit boards.

### The Optimal Solution

Historically Data Centres that suffered from Zinc Whiskers left their operators with a choice between:

- Remediation: Regular deep cleaning to minimise the disruption and outages caused by zinc whiskers
- Cure: Decommissioning and replacement of the Data Centre with its extreme cost

Now, Dataguardian™ is available to provide a highly cost effective alternative to decommissioning a Data Centre while offering a permanent solution to the problems of zinc whiskers. It is now possible to cure Zinc Whiskers with a remediation budget, offering enormous environmental and financial benefits compared to decommissioning a contaminated Data Centre.

### Dataguard Solutions

Dataguard Solutions are the manufacturers of this unique patent-pending technology. We can supply this product worldwide from our distribution centres in the UK and America. For more information, pricing and availability please contact us via our website at [www.zincwhisker.com](http://www.zincwhisker.com).