

## **Frequently Asked Questions About Daubrite® VCI Emitters**

### **What is a Daubrite emitter?**

VCI stands for Volatile Corrosion Inhibitor. An emitter is a device containing VCIs. It is generally used inside a package or cabinet to prevent corrosion on metals within the enclosed space.

### **How do I use it?**

Affix the emitter to the inside of the enclosure by peeling off the top of the adhesive strip on the back, and sticking on to a flat surface. The emitter begins working immediately, filling the package space with VCI vapors. It can be used in electrical cabinets, control panels or anyplace where the exposed metal is in danger of corroding.

### **What types of metals will Daubrite emitters protect?**

The VCI chemicals will prevent corrosion on steel, copper, zinc, and multi-metals in general. It is the same proprietary formulation that Daubert Cromwell uses in its paper and film products.

### **How many emitters should I use?**

Daubert Cromwell recommends using one Daubrite 5 emitter for every 5 cubic feet of package volume or one Daubrite 10 for every 10 cubic feet of package volume. You may need to use more, depending on storage environment, package integrity, condition of the parts and their location within the enclosure. Testing is recommended in any application before use.

### **Why should I use a Daubrite emitter?**

Many applications require superior corrosion protection of valuable equipment during storage and transit. An emitter provides quick and easy VCI protection in an enclosed space. It's also easy to remove and provides long lasting protection to most metals.

### **How does the VCI protect the metal?**

A VCI emitter works in the same simple way that VCI paper products work. When metals are wrapped or packaged, the chemicals volatilize in the packaging environment and form a protective molecular layer on the surface of the metal. This protective layer prevents moisture, salt, dirt, oxygen, and other materials from depositing on the metal and causing corrosion.

### **How long does it take for an emitter to become effective?**

An emitter is effective immediately, but may take several hours to deposit on all surfaces. VCI chemicals fill the package space and deposits on all surfaces, providing quality and clean protection. The closer the emitter is to the metal, the faster the vapors will reach the critical areas. Also, emitter chemicals vaporize faster in warmer environments.

### **Are the vapors hazardous?**

No. Contact Daubert Cromwell for applicable MSDS information.

### **Are emitters environmentally safe?**

Yes. The VCI is safe, odor-free, and compatible with the environment.

### **How do you remove VCI chemicals from the surface of a part?**

Once the emitter is removed from the package, the protective layer immediately begins to dissipate. In most applications, removal is unnecessary. The part is clean, dry, and ready for immediate use. In cases where a 100% clean surface is required after removing the emitter, use water or rubbing alcohol to remove any residual adhesive from the tape.

**What about enclosures, cabinets or boxes which are not completely sealed?**

These areas will still benefit greatly from the use of Daubrite emitters. Keeping such packages closed as much as possible will reduce airflow in and out of the package and will maximize the effectiveness of the emitter. You may want to use more emitters in these situations.

**Will emitters work in cabinets with fans or other forced air flow?**

While this is not the optimum way to protect with VCIs, metals will still benefit from VCI chemistry. We recommend testing any VCI product before use.

**How does VCI affect electrical properties such as resistance, dielectric strength, etc.?**

Corrosion on metal will adversely affect such electrical properties. Using Daubrite emitters will reduce these adverse affects.

**What about using emitters in high voltage equipment?**

Daubert Cromwell VCIs do not hinder high voltage activity.

**Do emitters also work like a desiccant?**

While an emitter may absorb moisture from the atmosphere, it is not the primary function. Inhibitors prevent corrosion even in moist and humid environments. We recommend contacting Daubert Cromwell for a nail test kit to demonstrate the effectiveness of VCI in water.

**What about using emitters in harsh environments?**

The harsher your storage and shipping environment, the more you need VCI protection. We recommend increasing usage where adverse conditions are expected, and check the effectiveness in each use.

**Will Daubrite emitters protect silver, gold, tin and other metals?**

Gold and silver are noble metals that do not corrode under standard conditions. Daubrite emitters are not recommended for the protection of silver against sulfur tarnish. However the multi-metal formula is compatible with most other metals and will protect many tin, copper, steel, zinc, and lead alloys. We recommend testing in every application.

**Will it work in high temperatures?**

Higher temperatures cause VCI chemicals to activate faster. Higher temperatures cause corrosion to progress faster. We recommend testing in any elevated temperature application.

**How do you know when to replace an emitter?**

VCIs will reach a point of exhaustion. Increasing the encapsulation of a package will increase the time frame of protection. Daubrite emitters will protect for 2 years under typical package storage conditions.

**What types of Daubrite emitters are available?**

Daubrite 5 disks will protect 5 cu. ft. Daubrite 10 disks will protect 10 cu. ft. Additionally, there are Daubrite 1 packets for 1 cu. ft. as well as Daubrite foam pads, with and without adhesive tape, in various sizes.

**Daubrite emitters provide:**

- **Long lasting, effective protection against corrosion**
- **Safe, easy, clean, and economical application options**
- **Easy storage**
- **Lower per unit packaging cost**
- **Packaging flexibility**
- **Reduced processing time**
- *Protect your parts...protect your quality with Daubert Cromwell VCI products.*