



# A NEW FORCE IN CHEMICAL MANUFACTURING

Unit 2, 14-16 Lee Holm Road  
St Marys NSW 2760  
Australia

Ph: 1300 738 250 (Australia)  
Ph: +61 2 9833 9766 (International)  
Fax: 02 9623 3670

sales@chemtools.com.au  
www.chemtools.com.au

## TECHNICAL DATA SHEET

FEBRUARY 2015

### PRODUCT NAME

R70 Revive It Anti-Corrosion Contact Cleaner/Enhancer

### PRODUCT RANGE

Part Number	Available Size
CT-R70-300	300g Aerosol
CT-R70-1L	1 Litre
CT-R70-5L	5 Litres
CT-R70-20L	20 Litres



Refer to SDS for product safety guidelines

## R70 Revive It Anti-Corrosion Contact Cleaner/Enhancer

Chemtools® R70 is a chemically engineered, multifunctional formulation that provides unprecedented penetration and lubrication, and unsurpassed corrosion protection to metals. R70 has been specifically formulated for the Electrical, Telecommunication, and Electronics industries where electronic components are a complex assembly of metallic and non-metallic materials. Given this complexity, there are many mechanisms by which corrosion of electronic components can occur.

These include:

- Pore and creep corrosion of base metals plated with a noble metal
- Corrosion caused by deposited pollutants in combination with moisture
- Fretting corrosion
- Localised and stress corrosion in the presence of corrosive contaminants (i.e., chlorides)
- Galvanic corrosion resulting from contact of dissimilar metals
- Electrolytic corrosion resulting from applied potentials normally found in electronic devices
- Process control or similar applications for the electronics being operated in harsh industrial environment
- Atmospheric pollutants
- Low levels of contaminants present in packaging materials and as a result of human handling

A corrosion cell is similar to a tiny battery; there is an Anode, Cathode, Electrolyte and a path of Current. Eliminate any one of these elements and you can shut down the corrosion process.

Upon application, R70 Revive-It eliminates two of those elements, and that's even before the corrosion protection phase.

### Stage 1

R70 Revive-It immediately eliminates two of the four corrosion causing elements. Upon application to a metal surface (ferrous or non-ferrous), it displaces the Electrolyte, then starts migrating into cavities and hard to reach areas, leaving a mono-molecular layer (ultra-thin film) that polar bonds to the metal surface and blocks the path of Current.

## Stage 2

R70 Revive-It also incorporates a Vapour-phase Corrosion Inhibitor (VCI or VPCI). They are chemically engineered and designed to vaporise and carry the corrosion inhibitor into the surrounding atmosphere. After the vapours have condensed to form a thin film of micro crystals, the inhibiting process continues. In the presence of even minute quantities of moisture (surface or airborne), the crystals dissolve and develop strong ionic activity. The result of such activity is absorption of protective ions onto metal surfaces, with the concurrent replenishing of the mono-molecular film to breakdown the contact between the metal and electrolyte.

The presence of this invisible mono-molecular film does not alter any of the important properties of the metal, even in precise electronic applications, where properties such as conductivity, magnetic permittivity or dimensional tolerances are critical and where even minute deviations could cause malfunctioning.

VCI provides an effective means of protecting electronic components from corrosion. These compounds have sufficient vapour pressures (103 to 105) mm Hg at 21°C to allow vaporisation and subsequent condensation and absorption on metal surfaces as a mono-molecular passivating layer

R70 Revive-IT forms a thin film of Vapor phase Corrosion Inhibitors effective against aggressive environments, including industrial, marine and tropical climates. This film will not alter the electrical resistance or magnetic properties of metal substrates.

Conforms to the following NATO & Military Specifications:

NATO 6850-66-132-6100, MIL P-46002B, MIL I-85062 (AS), MIL C-16173D (Grade 3)

R70 Revive-It is flammable and should not be sprayed onto live electrical equipment or other sources of possible ignition. Allow fumes and vapours to disperse before starting up equipment.

### **TYPICAL APPLICATIONS:**

- PC Boards & Enclosures
- Switches & Relays
- Marine Electronics
- Outdoor Electronics
- Solenoids
- Coils
- Fuse Panels
- Circuit Breakers
- Telephone Circuitry

### **PROPERTIES:**

Flash Point	12°C
Boiling Point	82°C
Appearance	Pale Amber Liquid
Odour	Paraffinic
Specific Gravity @ 20°C	0.787
Aerosol Propellant	Hydrocarbons

### **STORAGE:**

Store in a cool, dry place, in tightly closed original containers, at a room temperature of between 5°C to 40°C. Do not place in direct sunlight or near any heat source. Do not return any used material to its original container.

### **PRECAUTIONS:**

This product is capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Safety Data Sheets (SDS) for this and all other products being used are understood by all persons who will work with the material.

**WARRANTY:**

All products purchased from or supplied by Chemtools® are subject to terms and conditions set out in the contract. Chemtools® warrants only that its products meet the specifications designated as such herein, or in other publications. All other information supplied by Chemtools® is considered accurate, but is furnished upon the express condition. The customer shall make its own assessment to determine the products suitability for a particular purpose. Chemtools® makes no other warranty, either expressed or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or products will not infringe any patent.