



Research, Development & Engineering

Tallaght Business Park,  
Dublin, Ireland

## Technical Information Sheet

Rust Remedy  
September 1998

### PRODUCT DESCRIPTION

Loctite product Rust Remedy is an aqueous liquid which dries at ambient temperature. It converts rust into a black, stable complex and forms a protective coating on exposed iron and steel surfaces.

### PRODUCT BENEFITS

- Single component
- Non-toxic, non-irritant, non-flammable
- Lead free
- Easy application by brush, roller or sponge
- Application by spraying also possible
- Converts and stops rust
- Forms a suitable primer for most types of paints
- Good for all ferrous substrates
- Visible result – converted rust changes to black

### TYPICAL APPLICATIONS

Converting areas of rust on metal pipes, valves, fittings, storage tanks, fences, guard rails, conveyors, supports, heavy automotive equipment i.e. trucks, diggers, etc., overhead cranes, booms, ductwork, agricultural equipment, outdoor sign supports, posts, hatch covers, outdoor electrical cabinets and junction boxes.

### PROPERTIES OF LIQUID PRODUCT

|  |                                    |
|--|------------------------------------|
| Chemical Type:                                     | Synthetic Latex Resin              |
| Solvent:   | Glycol / Water                     |
| Solids Content by Weight:                          | 35-50 %                            |
| Appearance:  | Green/Grey (dries to a matt black) |
| Specific gravity:                                  | < 1.3                              |
| Viscosity, Brookfield LVT<br>Sp4 20 rpm 25°C:      | 2,000 - 4,000                      |
| Flash Point, COC °C:                               | 93 (Non Flammable)                 |
| Shelf Life at 5-28 °C:                             | >1 year                            |
| Minimum Drying Time @ 20 °C:                       | About 30 Minutes                   |
| Recoat Time at 20 °C:                              | 60 minutes                         |
| Recommended Time Before<br>Painting with Top Coat: | 24 Hours                           |

## **PERFORMANCE**

- |   |  |
|---|--|
| 1. Salt Spray Test (ASTM B117)<br>ASTM D714 500 Hours | No obvious rusting                                   |
| 2. Passes TUV Procedure                               | TUV-PS-PG 5049<br>06 86FP<br>(DIN Std. 50017, 10.82) |

## **USE AND APPLICATION**

### **SURFACE PREPARATION**

#### 1. Old Steel:

Loose or “flaky” rust must be removed. Only conversion of firmly bonded rust will result in durable protection. Oil, grease, old paint, mill scale, form oil, and water soluble surfaces and chlorides must be removed to allow Loctite Rust Remedy to react with surface.

Loose rust, mill scales and oil paint should be removed preferably by power wirebrushing, (avoid over polishing of the surface) followed by rinsing with water to remove powder and solubles. Manual wirebrushing, chipping, scraping and particularly rotopeening can also be used. Oil, grease, and form oil should be removed before loose rust.

#### 2. Rust Conversion Time and Appearance:

Two coats of Loctite Rust Remedy are recommended.

On lightly rusted steel (that has been wirebrushed) the first coat will start to develop a black colour within minutes. The second coat should dry to a black colour with gloss varying from flat to satin. The second coat should be applied within 60 minutes of the first coat.

### **DIRECTIONS FOR USE**

1. Shake thoroughly before use.
2. Remove oil, dirt and grease from surface. Wire brush to remove flaky rust and loose scale. Sanding not required.
3. Pour into clean container for easy application by brushing or apply directly to surface and brush out.
4. Use of gloves is recommended.
5. Brush or sponge on liberally. An airless spray may also be used.
6. Uneven colour indicates need for additional coats for maximum protection. Recoat time 60 - 120 minutes. Allow 24 hours minimum to dry before painting.
7. Brushes, rollers and other tools should be cleaned immediately with detergent and water. Flush spray equipment immediately after use with detergent and water. Loctite Rust Remedy is difficult to remove when dry.

### **HINTS AND PRECAUTIONS FOR USE**

1. Surface preparation - remove loose or flaky rust, oil, grease, dirt, oil debonding paint, water soluble sulphates, chlorides, cutting oil residues.
2. If sandblasted, sufficient material should be applied to effectively cover the profile.
3. Application of 2 coats recommended for maximum durability.
4. Shake container well. Contents tend to settle in storage.

### **APPLICATION CONDITIONS**

Loctite Rust Remedy may be applied when surface and air is between 10 °C minimum and rising and 30 °C maximum and falling. Reaction is slower at lower temperatures. If temperature is too hot, film may surface and bubble. High humidity is beneficial; it slows drying but assists rust conversion. Loctite Rust Remedy should not be applied in conditions of condensing humidity (e.g. fog, dew), on ice, in rain or in heavy sea (salt) spray atmospheres. Steel surfaces may be damp but not wet (i.e. continuous visible film of water). Do not apply Loctite Rust Remedy to surface in direct sunlight.

### **APPLICATION EQUIPMENT METHODS**

Loctite Rust Remedy may be applied by brush or roller. Avoid sags and ridges and keep wet by coating about a square meter at a time. Roll away from previously coated area then roll back.

#### **NEVER ADD SOLVENT TO LOCTITE Rust Remedy**

Spray application is recommended for larger areas. Airless equipment is faster and provides more effective conversion and improved surface penetration. Conventional air-spray equipment may be used, but Loctite Rust Remedy may require thinning to 10% with water for proper spraying

### **RESISTANCE TO MOISTURE, SOLVENTS & CHEMICALS**

Loctite Rust Remedy should be topcoated for many applications. Continuous exposure of Loctite Rust Remedy should not be used in applications involving continuous immersion in water or fluids. Loctite Rust Remedy should be topcoated with products known to be resistant to the environment expected.

Topcoat selection is dependent upon the environment to which the coating will be subjected. The following guidelines can be used. Topcoats are listed by their relative order of performance.

- Moisture/salt spray - high-build epoxides, coal tar epoxy catalysed urethanes, vinyls, chlorinated rubber.
- Solvent resistance - catalysed urethane, high build epoxy, coal tar epoxies, vinyls.
- Acid resistance - catalysed urethanes, coal tar epoxies, high build epoxies.
- Alkali resistance - catalysed urethanes, coal tar epoxies, high build epoxies, chlorinated rubber.
- Oxidizing agent resistance - vinyls, catalyzed urethanes.
- Abrasions - epoxies, urethanes, alkyds.

Where cratering, pitting or heavy surface profile is evident use coats of Loctite Rust Remedy followed by a high build primer topcoat with sufficient thickness to prevent pin-point corrosion. As with all paint systems, a test patch is recommended. A reputable painting contractor or coating representative can assist you.

### **CLEAN UP**

When Loctite Rust Remedy dries, it is extremely difficult to remove. Therefore spatters should be cleaned as they occur. Immediately after use, contaminated brushes, rollers, trays, etc., should be cleaned with cold tap water and detergent. Spray equipment should be flushed through immediately with mild detergent and water, then rinsed with fresh water. Containers should be closed after every use to prevent skinning.

If Loctite Rust Remedy is spilled on clothes, the garment should be soaked with cold tap water as soon as possible and washed out before it dries. Do not use ammonia, soap, alkali detergents or hot water for clean up

Loctite 7850 Fast Orange hand cleaner is recommended for cleaning hands and nails  
Spills of Loctite Rust Remedy should be flushed with large amounts of cold tap water.

### **REMOVAL**

Once dried, strong solvents such as paint remover will be required to remove Loctite Rust Remedy from equipment and clothes. Mechanical abrasion may be necessary.

### **SAFETY DATA**

Loctite Rust Remedy is non-irritant to eyes and skin. However, prolonged exposure is not recommended. Loctite Rust Remedy is biodegradable in low concentrations.

### **STORAGE**

Store material in original container. Store between 10 °C and 30 °C. Protect from freezing. When stored under these conditions a one year shelf life or more may be expected.

### **NOTE**

The technical information contained within this publication is furnished for information only and is believed to be reliable. It is the user's responsibility to determine suitability for the user's purpose of Loctite products, methods or apparatus and to adopt such safety precautions as may be advisable.

The information given on various processes of compositions is not intended to show that they are free from patents protection by others or by Loctite. We recommend that each prospective user test his proposed applications, using this data as a guide.

Loctite products are protected by patents and / or pending applications in most countries where made or sold.

This information supersedes all previously published data.

**Dr Patricia Cullen**  
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