

## T.C. 714

### Rust Remover & Rust Inhibitor

#### PRIMARY APPLICATION

T.C. 714 is a mildly alkaline, powder-form material designed to remove rust as well as shop and fabricating soils, while protecting against re-rusting with a complex conversion coating that serves as a good base for many paints and rust preventive oils and waxes. Designed for tank application to ferrous metals. T.C. 714 is ideal for renovating salvaged parts and certain rejects. While effective in removing rust and soils, T.C. 714 is not intended to strip paint or heat scale.

#### CHEMICAL CHARACTERISTICS

Chemical composition	Phosphates, surfactants, fluorides, And sequestrants																
Physical form	As received: white powder As used: Slightly opaque solution																
Odor	Bland																
Bulk density	8.0 lbs./gal.																
Hygroscopic tendency	Slight																
Foaming tendency	Moderate at 10 oz./gal. of water																
Recommended diluent	Water																
Maximum solubility	16 oz./gal. of water at 72° F																
Behavior in hard water	Sequesters																
Rinsability	Good where applicable																
Biodegradable	Yes																
Phosphate -free	No																
Normal working concentrations	8 to 12 oz./gal. of water																
Normal operating temperatures	140° to 180°F																
pH at working concentrations	7.0 to 7.5 at 10oz./gal. of water																
Effect of working solutions on metals	Rate of metal loss from immersion in T.C. 714, 10 oz./gal. of water, 120° F is as follows:																
	<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Metal (Alloy)</u></th> <th style="text-align: right;"><u>Inches per Year</u></th> </tr> </thead> <tbody> <tr> <td>Steel (1010)</td> <td style="text-align: right;">costs</td> </tr> <tr> <td>Stainless steel (304)</td> <td style="text-align: right;">0.0001</td> </tr> <tr> <td>Aluminum (303)</td> <td style="text-align: right;">0.0914</td> </tr> <tr> <td>Copper</td> <td style="text-align: right;">0.0028</td> </tr> <tr> <td>Brass</td> <td style="text-align: right;">0.0038</td> </tr> <tr> <td>Magnesium</td> <td style="text-align: right;">0.2387</td> </tr> <tr> <td>Galvanized steel</td> <td style="text-align: right;">0.0093</td> </tr> </tbody> </table>	<u>Metal (Alloy)</u>	<u>Inches per Year</u>	Steel (1010)	costs	Stainless steel (304)	0.0001	Aluminum (303)	0.0914	Copper	0.0028	Brass	0.0038	Magnesium	0.2387	Galvanized steel	0.0093
<u>Metal (Alloy)</u>	<u>Inches per Year</u>																
Steel (1010)	costs																
Stainless steel (304)	0.0001																
Aluminum (303)	0.0914																
Copper	0.0028																
Brass	0.0038																
Magnesium	0.2387																
Galvanized steel	0.0093																

### **APPLICATION PROCEDURE**

T.C. 714 is applied in soak tanks at 8 to 12 oz./gallon of water. The rust removing and coating ability of T.C. 714 is directly influenced by time and temperature. For example: At low temperatures, 140° to 160°F for 15 minutes or longer, it will generally remove rust and leave a grayish complex coating on steel. At higher temperatures of 160° to 180°F for 5 to 15 minutes or longer, it will remove rust and leave a light to dark gray coating on steel.

pH of the working solution should be maintained between 7.2 and 7.5 for effective cleaning and de-rusting. Normal upkeep of T.C. 714 should keep the pH within this range. Where work is heavily soiled, it may be advantageous to preclean with T.C. 1617 alkaline detergent prior to treating for rust removal and/or coating with T.C. 714.

Solution Control: Sample volume is 25.0 ml using procedure 56; T x 1.66 equals oz./gal.

### **NOTES ON USE**

Mild steel tanks and heating coils are acceptable.

**Safety and Handling Precautions:** T.C. 714 is a mildly alkaline product. Direct content may cause irritation of eyes and prolonged contact may cause irritation of skin. It may be harmful if swallowed. Do not get into eyes. Avoid prolonged skin contact. Wash thoroughly after handling. Do not take internally.

**First Aid:** For eyes: Flush with plenty of water for at least 15 minutes. If eyes are Irritated, seek medical attention. For skin: flush with water. If swallowed, drink plenty of Water. Contact a physician.

### **DISPOSAL**

Dilute and discharge in accordance with state and local regulations. Where required, Phosphates should be precipitated from the solution first.

### **PACKAGING**

Packaged in large, non-returnable drums.

### **SHIPMENT**

T.C. 714 may be shipped by any common carrier. The freight classification is "Cleaning Compound NOIBN, Powder."

### **STORAGE**

Suitable for general indoor storage. Keep drum tightly covered when not in use.