

# PROTECH 1999LC

**Water-Based Rust Preventative, Provides Superior Corrosion Protection, Easy-to-Apply, Provides a Clear Dry-to-Touch Film**

## PRIMARY APPLICATION

PROTECH 1999LC is a liquid, corrosion inhibitor primarily for ferrous metals, but, can also be used in multi-metal systems. This water-based product is a significant advancement in anti-corrosion technology that replaces solvent and oil-based corrosion preventives. Once applied, the clear protective coating will dry-to-touch, typically within 30 minutes at ambient conditions. Protech 1999LC is ideal for in plant corrosion protection and for protected shipments. Residues can be easily removed with mild alkaline cleaners.

## CHEMICAL CHARACTERISTICS

Chemical Composition .....	Corrosion inhibitor
Appearance .....	Clear yellow liquid
Odor .....	Bland
Bulk Density .....	8.69 lbs/gal
Foam Tendency .....	Low
Behavior in Hard Water.....	Good
pH: (10%).....	10

## APPLICATION PROCEDURE

Protech 1999LC can be applied to metals by dip, spray, or flow coat. The concentration of Protech 1999LC to be used depends on the length of time corrosion protection is required.

Short-Term Protection	Up to 3 months	2% - 5%Medium
Term Protection	3-6 months	5% - 10%
Long-Term Protection	6-12 months	10% - 20%

Although this technology has multi-metal applications, it is recommended to validate compatibility on aluminum alloys. Protech 1999LC is formulated with anti-tarnish agents for yellow metals.

Your Chemetall representative will help you establish the optimum operating criteria for your operation.

## SOLUTIONS CONTROL

Protech 1999LC is controlled by total alkalinity using Gardotest Procedure 210.

**Sample Size:** 5 ml

**Titrant:** 0.1N HCl

**Conversion Factor (%):** 0.49

Concentration is also determined by using Refractometer.

**Conversion Factor (%):** 2.1

## EQUIPMENT

**Automatic Control:** The Chemetall Chemical Metering Pump can be used to automatically maintain the makeup chemical requirement of this product. If pre-dilution is required, the Chemetall water driven Proportioners can be used to automatically feed the premixed solution of this product to the process tank.

Please contact the Chemetall Process Equipment and Engineering Department for specific recommendations.

Compatible materials of construction for Protech 1999LC include mild steel, stainless steel, and most elastomers.

## NOTES ON USE (See Safety Data Sheet)

## SAFETY AND HANDLING

Prior to handling and use of any of the materials referenced in this document, the Safety Data Sheets should be read and understood by all personnel in contact with these materials.

## KEEP OUT OF REACH OF CHILDREN

## STORAGE

Dry indoor storage at temperatures between 40°F and 100°F (4.4°C and 37.8°C) is recommended, away from any incompatible materials referenced in the Safety Data Sheets. All containers should be tightly closed when not in use.

## DISPOSAL

Any disposal of the materials referenced in this document should be in accordance with all applicable federal, state, providential and local regulations. The process solution can contain components other than those present in the materials as supplied. Analysis of process solutions may be required prior to disposal.

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