



PRODUCT DATA

SELECTING A PICO GUARD RUST AND CORROSION INHIBITOR

Rust and corrosion are constant industry concerns and can cause reduced service life or complete failure of parts and finished goods to directly impact the cost and efficiency of processes, and reduce customer confidence. Selecting the correct rust and corrosion inhibitor is necessary to prevent problems.

What is Rust and Corrosion?

Rust and corrosion is the result of attack or deterioration to metal by a chemical or electrochemical action/reaction and/or oxidation within its environment. Rust and corrosion typically attack ferrous materials, iron and steel, and various other alloys. Metal staining, discoloration or tarnish of the surface (may be white and powdery, green, black, or brown in color) is light corrosion and does not need a wet environment to occur. Keep water, moisture, and other contaminants from causing rust and corrosion.

PICO GUARD Rust and Corrosion Inhibitors

Rust and corrosion protection may vary on substrates, metal preparation, and environmental conditions and are formulated to be most effective when applied over freshly cleaned or processed surfaces. Dirt, oil, grease, or rust must be cleaned/removed before applying the inhibitor. **PICO** offers safe-to-use cleaning and rust removing chemicals that work quickly, effectively, safely, and efficiently.

PICO GUARD Rust and corrosion inhibitor choices are water, solvent, solvent/oil, or oil-based fluids that provide a protective barrier film to stop rust and corrosion from developing during storage and shipment, and between machining, processing or operating conditions. Many **PICO GUARD** rust and corrosion inhibitors will displace water (metalworking fluids) from parts/equipment and develop a protective film to protect and separate water from further attack. Particular **PICO GUARD** films will also protect metal surfaces from acidic, chloride, and other hazardous environments.

When choosing a PICO GUARD rust and corrosion inhibitor, consider

- Compatibility with a wide range of metal substrates
- Processing time associated with cleaning protective films
- Compliant with EPA, VOC (and industry) requirements in a global market.
- Resistance to salt spray, high humidity, weather changes and other corrosive conditions
- Eliminate workplace and disposal hazards associated with heavy metal exposure
- Materials to be protected
- Indoor and/or outdoor protection
- Type of product used (oil/solvent or water based)
- Protection effectiveness timeframe (one week, one month, one year, etc.)
- Method of application (dip, spray, brush, etc.)
- Type of protection required (in process, storage, or shipping)
- Part handling, fingerprint suppression, water displacement, acid atmosphere protection
- Type and thickness of non-discernible film desired
- Storage, packaging, and/or shipping conditions (temperature, humidity, acid and saltwater atmospheres, and seasonal conditions, etc.)
- Removal methods (if required)
- Interaction with subsequent processes (if not to be removed)



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PICO GUARD APPLICATION RECOMMENDATIONS

It is important to determine the variables of selecting the correct inhibitor.

1. **Cleaning:** It is best to ensure the parts to be coated are free of rust, grease, oil, or other organic soils before application. If clean-off is required, contact **PICO** for recommendations.
2. **Application:** If spraying, use a fine mist type spray to avoid puddling or excess use build-up. In dip/immersion methods, allow parts to drain properly. In dip/immersion methods, utilizing a sloped bottom or height adjusted separation in the tank will allow for best water separation. It is recommended to not over-apply the inhibitor. For brush-on or roll coat method application, contact a **PICO** representative.
3. **Term of Protection:** The length of time and surrounding ambient conditions for protection should be determined before selecting a **PICO GUARD** inhibitor.
4. **Indoor/Outdoor Protection:** In all cases, indoor/outdoor requirements must be considered to determine which **PICO GUARD** products offer the correct protection.
5. **Acid / Salt Spray Resistance:** Whether being shipped overseas or in contact with acid atmospheric conditions, the consideration must be made on proper protection.
6. **Drying Times (if required):** When using products that have drying characteristics allow the inhibitor to dry properly and completely before stacking, storing, or packaging parts. (Forced and/or heated air help accelerate drying.) Contact **PICO** for alternative (non-drying) inhibitors.
7. **Stacked Part Protection:** Avoid using untreated cardboard or wood in direct contact on parts. For steel plate stacking, it is important to allow complete drying of treated surfaces before stacking. When drying mechanisms (air/heat) are not in place, avoid puddling or over applying the inhibitor in between stacked pieces.
8. **Storage/Transport:** When storing or shipping unprotected parts, avoid areas of dampness, high humidity, wind conditions (open doors), and temperature swings. If storing parts in acid atmospheres or when shipping over water (salt conditions), consult **PICO** for the correct, most effective **PICO GUARD** product.
9. **Welding:** Many **PICO GUARD** products do not need to be removed (cleaned off) before welding and can be welded over without adverse effect to weld integrity or atmosphere.
10. **Painting:** Many **PICO GUARD** products can be painted over. Pre-test to insure paint adhesion.
11. **Removal:** **PICO GUARD** products may be removed if necessary by **PICO**-recommended cleaners.
12. **Rusted Parts:** Rusted parts can be effectively treated by using **PICOCLEAN X-RUST** or **PICOCLEAN XR SERIES** rust removers.

PICO GUARD Rust and Corrosion Inhibitors are environmentally friendly and compliant products designed to offer temporary to long-term indoor and outdoor rust protection and moisture rejection.

Contact **PICO** for additional product and application equipment recommendations.

PICO Chemical Corporation is an ISO 9001 certified manufacturer of environmentally responsible, specialty chemicals and lubricants that clean, condition, lubricate, protect, and provide value for steel and metal processing industries since 1976.



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