

RP 610 Barium Salt Rust Preventative Package

Product Description

RP 610 is a high-performance rust preventative additive package formulated with barium salt-based polar corrosion inhibitors.

The product features low intrinsic viscosity, delivering easy uniform blending. It exhibits complete solubility in aliphatic hydrocarbon solvents and mineral base oils, allowing flexible formulation with variable additive dosages to match diverse anti-corrosion performance standards.

Its polar molecular structure creates strong adsorption affinity onto all metal substrates. RP 610 delivers superior water displacement and water separation capability to eliminate residual process moisture, while providing long-term rust inhibition for ferrous and non-ferrous metals alike. When diluted with oil or solvent carriers, it deposits an ultra-thin, nearly transparent protective barrier on workpiece surfaces without affecting component appearance.

Features and Benefits

1. High versatility with excellent lubricating, anti-rust and anti-oxidation performance
2. Superior salt spray resistance plus outstanding water displacement & separation capacity
3. Powerful detergency, easy rinsing after service, low foaming and effective foam inhibition
4. Non-corrosive to various non-ferrous metals; forms thin, nearly colorless protective film
5. Low viscosity for simple blending, wide compatibility with mineral oils & industrial solvents
6. Excellent long-term stability, good corrosion resistance and odor inhibition

Typical physical and chemical properties

Test Item	Test Condition & Standard	Typical Technical Index
Specific Gravity	25°C	0.993
Flash Point (COC)	Cleveland Open Cup Method	126 °C
Kinematic Viscosity	40°C	122 mm ² /s (cSt)

Recommended Formulation Blend Ratios (Mass Percentage)

A. Thin Oily Film Anti-Rust Oil (Long-Term Indoor Storage)

Component	Weight Ratio Range
RP 610 Additive Package	4% ~ 20%
Glycol Ester Co-solvent	0% ~ 3%
Mineral Base Oil	Balance to 100%

Formulation Guidance

Adjust RP 610 dosage according to target salt spray life and storage environment severity:
Low RP 610 loading (4%–8%): Add 1%–3% glycol ester to significantly boost water displacement performance for water-contaminated workpieces;
High RP 610 loading ($\geq 12\%$): Glycol ester addition is unnecessary, as the additive's native water-separating performance fully meets dehydration requirements.

B. Fast Volatile Dehydrating Anti-Rust Oil

Component	Weight Ratio Range
RP 610 Additive Package	4% ~ 12%
Industrial Hydrocarbon Solvent	Balance to 100%

Application Scope

Anti-rust oils compounded with RP 610 are suitable for finished machined metal components:

- Indoor sealed warehouse storage, providing stable anti-rust protection for a minimum of 12 months;
- Short-term temporary outdoor protection against light rainfall, high humidity and mild salt mist environments.
- Applicable substrates: carbon steel, cast iron, aluminum, copper, brass and most common engineering metals.

Storage & Handling Precautions

Storage Requirements

- Store the product in a cool, dry, well-ventilated warehouse, maintain ambient temperature between 5°C–35°C; avoid direct sunlight and continuous high-temperature heat sources.

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- Keep original metal drums or mixing tanks fully sealed when not in use, to prevent dust, moisture and foreign contaminants from contaminating the liquid.
- Standard shelf life: 12 months under intact factory-sealed packaging. Re-inspect all physical and anti-rust performance indicators before use if the product exceeds shelf life.

Operation Notes

- Keep far away from open flames, welding sparks and high-temperature equipment during blending, transfer and workpiece coating processes; comply with fire safety regulations for petroleum-derived chemicals.
- Avoid prolonged direct skin contact. Wear nitrile rubber gloves and splash-resistant safety goggles during continuous mass production operations.
- Complete hazard identification, first-aid and emergency spill/ fire response information can be found in the corresponding SDS document.

Packaging Specification

- Standard Packaging: 200L sealed carbon steel drum, net weight approximately 190 kg per drum
- Custom Bulk Packaging: 1000L IBC intermediate bulk tote tanks available upon customer special request.

Disclaimer

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