

RLT-RP650 Barium Salt Rust Preventative Package

Description

RLT-RP650 is a high-performance rust preventative additive package formulated with barium salt-based active corrosion inhibitors.

The product features low viscosity for simple blending operations. It possesses excellent solubility in aliphatic solvents and mineral base oils, enabling flexible formulation to meet diversified addition ratios and anti-corrosion performance requirements.

Containing polar adsorptive compounds, RLT-RP650 can firmly attach to metal substrate surfaces via molecular polarity adsorption. It delivers outstanding water displacement and water separation capacity, providing reliable rust inhibition protection for most ferrous and non-ferrous metals. When diluted with oil/solvent carriers, it forms an ultra-thin, nearly colorless uniform protective film on metal workpieces.

Features & Core Benefits

- Superior salt spray anti-corrosion performance for long-term metal storage
- Excellent water displacement & water separation capability to eliminate residual process water
- Non-corrosive passivation effect on multiple non-ferrous metal alloys (aluminum, copper, brass etc.)
- Forms ultra-thin, transparent, nearly colorless protective film without affecting workpiece appearance
- Wide compatibility with conventional mineral oils and industrial hydrocarbon solvents
- Low intrinsic viscosity, easy uniform mixing at ambient or moderate heating temperature

Typical Physical & Chemical Properties

Test Item	Test Condition	Typical Index
Appearance	Visual inspection at 25℃	Clear amber liquid
Specific Gravity	25℃	0.993
Flash Point (COC)	Cleveland Open Cup	156 ℃
Kinematic Viscosity	40℃	119.2 mm ² /s

Recommended blend ratios

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

Component	Weight Ratio
RLT-RP650	5% ~ 20%
Mineral Base Oil	Balance to 100%

Adjust RP650 dosage according to required salt spray resistance and storage duration.

Low dosage system (5%-8% RP650): Add 1%–3% glycol ester co-solvent to reinforce water displacement performance;

High dosage system ($\geq 12\%$ RP650): No glycol ester addition required, inherent water separating performance meets demand.

B. Volatile Dehydrating Anti-Rust Oil (Quick Evaporation, Thin Film)

Component	Weight Ratio
RLT-RP650	5% ~ 20%
Light Mineral Oil	5% ~ 10%
Industrial Solvent Oil	Balance to 100%

Application Scope

RLT-RP650 blended anti-rust oils are applicable for finished machined metal parts:

1. Indoor sealed storage, providing stable rust protection for minimum 12 months;
2. Short-term temporary outdoor exposure protection against light rain, high humidity and salt mist environment.

Suitable substrates: carbon steel, cast iron, aluminum alloy, copper, brass and most common structural metals.

Storage, Handling & Safety Precautions

Storage Requirements

- Store in cool, dry, well-ventilated warehouse, storage temperature controlled within 5–35°C, avoid direct sunlight and heat sources;
- Keep original drums tightly sealed to prevent moisture, dust and foreign contaminants ingress;
- Shelf life: 12 months under intact sealed packaging. Retest physical & anti-rust performance before use if expired.

Operation Guidance

- Keep away from open flame, high temperature during blending, transfer and coating processes, comply with petroleum product fire prevention regulations;
- Avoid prolonged direct skin contact. Wear nitrile rubber gloves & splash goggles for continuous mass production operation;
- Complete health hazard, first-aid and emergency handling information, please refer to corresponding SDS document.

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Packaging Specification

Standard package: 200L metal drum, net weight approx. 190 kg/drum;

Bulk custom package: 1000L IBC tote tank available upon customer request.

Disclaimer

All technical data stated in this TDS are measured under standardized laboratory test environments, provided solely as reference for customer formulation design and process matching.

ROLITOM shall not bear liability for workpiece corrosion failure or economic losses caused by improper blending ratio, incorrect operation or application beyond the recommended service scope. Customers must conduct independent small-batch compatibility & anti-rust verification tests before formal mass production application.