

RLT-P200

Water soluble corrosion inhibitor

Description

RLT-P200 is a high-efficiency water-soluble corrosion inhibitor developed for ferrous metal anti-rust treatment. It delivers outstanding full water miscibility and forms completely transparent aqueous diluents with excellent long-term rust inhibiting performance.

This product is specially formulated for rust protection of semi-finished and finished iron workpieces during machinery manufacturing and equipment maintenance, compatible with all ferrous substrates including cast iron, carbon steel and alloy steel.

Features and benefits

- Strong rust resistance, good protection for ferrous metals at low concentration.
- Good water-soluble, can be mixed with water in any proportion.
- Low residue, easy to clean by water - based cleaner or solvent cleaner.
- Good adaptability to hard water.
- Waste liquid treatment is convenient and environmentally friendly.

Typical physical and chemical properties

Test Item	Test Standard & Condition	Typical Technical Index
Original Liquid Appearance	Visual inspection	Transparent liquid
Diluent Appearance (1 wt.% solution)	Visual inspection	Colorless & transparent
pH Value (1.5 wt.% aqueous solution)	pH Meter	8.5 ~ 9.5
Rust Inhibition Test (Cast Iron, 3 wt.%, 18–25°C, 2h immersion)	JB/T 9189-2010	Grade 0, No rust spot
Metal Corrosion Test (Cast Iron, 3 wt.%, total immersion, 55±2°C, 24h)	GB/T 6144	Qualified
Nitrite Content	Precision nitrite test strip	Non-detectable / None

Main Application Fields

RLT-P200 can be added to various water-based industrial fluid systems as anti-corrosion additive:

- Synthetic & semi-synthetic metal working fluids (MWF)
- Machining emulsions & cutting solutions (tank-side direct addition)
- High-water-content HFC type hydraulic fluids
- Concentrated water-based metal cleaning agents
- Ready-to-use aqueous metal cleaning solutions (on-site tank blending)

Recommended Operating Instructions

1. Working Concentration: Standard dilution ratio 3%–5% by weight; adjust dosage appropriately according to target anti-rust service life.
2. Operating Temperature: Usable at ambient temperature; mild heating improves drying efficiency, avoid boiling to prevent concentration deviation.
3. Treatment Duration:
 - (1): Immersion process: Soak workpieces for 2–5 minutes
 - (2): Spraying process: Uniform spray coverage for minimum 2 minutes
4. Pre-treatment Requirement: Remove original rust, oil and scale from workpiece surface before anti-rust treatment, otherwise the anti-corrosion effect will be greatly weakened.
5. Post-treatment Drying: Air-dry or low-temperature bake treated parts to form a compact passive anti-rust film on metal surface.
6. Post-storage Protection: Isolate treated workpieces from rainwater, sewage and other external liquid contamination to avoid failure of the protective film.

Operation Safety Notes

- Avoid prolonged direct skin contact; wear nitrile gloves and splash-proof safety goggles during continuous mass production.
- If liquid splashes into eyes or skin, rinse thoroughly with plenty of clean water for 10 – 15 minutes; seek medical treatment if irritation persists.
- Complete hazard identification, first-aid and emergency disposal information, please refer to the corresponding SDS document.

Packaging Specification

Standard Packaging: 200L sealed plastic drum, net weight approx. 200 kg per drum.

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Disclaimer

All technical data, formulation guidance and application descriptions contained in this TDS are based on standardized laboratory testing records of ROLITOM and provided only for customer formulation and process reference.

No express or implied warranty of product performance, suitability or merchantability is issued. ROLITOM shall not bear any liability for workpiece rusting, component damage or economic losses caused by improper dilution concentration, incorrect operation procedures or application beyond recommended scope. End users must conduct independent small-batch anti-rust verification tests before full mass production use.