

Emulsified Oil Package RLT-230P

Product Introduction

RLT-230P is a multi-functional additive package specially developed for formulating paraffinic soluble metalworking oils. It is compounded with premium rust inhibitors, balanced anionic & nonionic emulsifiers, heavy-duty extreme pressure lubricants and specialty amine components. When blended with 150SN / 150N paraffinic base oil, the finished soluble oil delivers outstanding anti-rust performance, stable emulsion state, excellent detergency and hard water tolerance. It is tailor-made for machining all ferrous metals including die steel, high-carbon steel, 45# steel, cast iron and stainless steel.

Physical and Chemical Properties

The following data are based on a 5% dilution (using tap water) of the emulsified oil prepared with 18% additive package with 82% base oil.

Test project	Test results	Test Method
Appearance	Amber transparent liquid	Visual inspection
Diluent appearance	Milky white liquid	Visual inspection
Rust prevention	Pass,no rust observed	Cast iron chips in oven at 35℃,2 hours
PH (5% in tap water)	8.8-9.3	PH indicator paper
Refraction coefficient	5	Refractometer
Defoaming property	0ml/10min	Foam Tester

Recommended formula ratio

Standard Loading Ratio

Mix 17 ~ 23 wt% RLT-230P additive package with 77 ~ 83 wt% 150SN / 150N paraffinic base oil at ambient temperature, stir until fully homogeneous transparent soluble oil concentrate is formed.

Pre-Blending Reminder

Emulsification compatibility varies with different batches and grades of paraffinic base oil. Always conduct small-scale bench trials before mass production to confirm full emulsification and stable performance.

Product Characteristics

1. Powerful emulsifying capacity fully compatible with paraffinic base stocks (150SN / 150N);
2. Superior inter-process rust protection via composite anti-corrosion formula;
3. Balanced anionic & nonionic surfactant system for long-term emulsion stability;
4. Excellent hard water stability, no oil separation or soap precipitation in hard water;
5. Inherent low-foam characteristic, minimal foam accumulation under high-flow circulation;
6. Hazard-free formulation: Free of nitrites, phenols, chlorine and harmful primary amines.

Product Application

Soluble oils formulated with RLT-230P are suitable for cutting, turning, drilling, milling and tapping processes of ferrous metals: die steel, high-carbon steel, 45# medium carbon steel, cast iron and stainless steel.

Packaging, Storage & Shelf Life

- Standard Packaging: 200L steel drums, 1000L IBC tote tanks; custom packaging available upon request
- Storage Requirements:
 1. Store sealed barrels indoors in dry warehouse
 2. Keep away from direct sunlight and high-temperature heat sources
 3. Prevent rainwater pooling on drum tops to avoid dilution and contamination
- Shelf Life: 12 months for unopened original drums under recommended storage conditions

Disclaimer

- All technical specifications, test data and blending guidance stated in this TDS are derived from standard laboratory testing and field formulation experience of ROLITOM, which are deemed accurate at the date of release.
- ROLITOM and its cooperative partners shall not bear any express or implied warranty for finished soluble oil performance, as final product quality is subject to base oil grade, blending ratio, local water hardness and on-site machining conditions beyond our control.
- Customers must complete small batch compatibility trials before formal mass blending and production.