

Fully Synthetic Cutting Fluid FS200

Product Description

FS200 is a fully synthetic, water-soluble cutting fluid designed for high-performance metal machining operations.

This product is free from sulfur, phosphorus, and chlorine additives, ensuring environmentally friendly performance while delivering excellent lubrication, cooling, cleaning, and anti-rust properties.

Formulated with a blend of high-quality additives, FS200 provides stable performance, superior heat dissipation, and enhanced machining accuracy. It is particularly suitable for precision machining applications requiring high surface quality and extended tool life.

Technical Data

Test Item	Typical Data	Test Method
Appearance (Concentrate)	Yellow transparent liquid	Visual inspection
Appearance (5% Solution)	Transparent liquid	Visual inspection
pH (5% solution)	8.8-9.2	pH meter
Rust Prevention (5%, cast iron chips, 2h, 18–28°C)	Grade 0 (No rust)	JB/T 9189-2016
Foam (Distilled water)	≤ 2 ml after 10 min	GB/T 6144
Nitrite content (mg/L)	None	Nitrite test paper

Product Features

- **Excellent Cooling Performance**
Rapid heat dissipation improves machining stability and dimensional accuracy.
- **Outstanding Lubricity**
Reduces friction between tool and workpiece, minimizing wear and improving surface finish.
- **Good Cleaning Property**
Effectively removes metal chips and residues, keeping machining systems clean.
- **Superior Corrosion Protection**
Provides reliable anti-rust protection for both equipment and workpieces.
- **Low Foam & Hard Water Resistance**
Maintains stable performance even under high-speed machining and varying water quality conditions.
- **Environmentally Friendly Formula**
Free from sulfur, phosphorus, chlorine, and nitrites.

Applications

FS200 is suitable for a wide range of machining operations, including:

- Turning
- Milling
- Drilling
- Grinding

Applicable materials include

- Aluminum and aluminum alloys
- Cast iron
- Alloy steel
- Galvanized steel
- Carbon steel
- Tool steel / mold steel

Application Method

- Clean the fluid tank thoroughly before use.
- Dilute the concentrate with water at room temperature.
- Add the concentrate into water slowly while stirring to form a stable solution.
- Use deionized water or tap water for dilution.

(Recommended concentration: 5%, adjustable according to actual working conditions.)

Packaging Specifications

- 18L/drum ● 200L/drum (or customized according to customer requirements).

Storage & Handling

- Store in a dry, well-ventilated area.
- Keep container tightly sealed when not in use.
- Avoid contamination with water or other substances.

Shelf life: 12 months under recommended storage conditions.

Safety Information

- Avoid prolonged skin contact.
- Use appropriate personal protective equipment (PPE) during handling.
- Refer to the Material Safety Data Sheet (MSDS) for detailed safety information.