

## Semi-Synthetic Cutting Fluid SS30

### Product Description

SS30 is a semi-synthetic, water-miscible cutting fluid formulated for general-purpose metal machining operations.

It is developed with a balanced combination of lubricity additives, corrosion inhibitors for ferrous and non-ferrous metals, and defoaming agents. The formulation is free from heavy metals, sodium nitrite, and phenolic compounds, ensuring a safer and more environmentally acceptable solution.

SS30 delivers reliable lubrication and cooling performance across a wide range of machining conditions and is suitable for both conventional machine tools and modern flexible manufacturing systems.

### Technical Data

Test Item	Typical Data	Test Method
Appearance	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
Corrosion Test (55°C ±2°C) – Steel	Pass (24 h)	GB/T 6144
Corrosion Test (55°C ±2°C) – Copper	Pass (8 h)	GB/T 6144
Corrosion Test (55°C ±2°C) – Aluminum (LY12)	Pass (8 h)	GB/T 6144
Foam (Distilled water)	≤ 2 ml after 10 min	GB/T 6144
Nitrite content (mg/L)	None	Nitrite test paper

### Product Features

- **Balanced Lubrication & Cooling Performance**  
Provides both physical and chemical lubrication mechanisms to ensure stable machining performance.
- **Wide Machining Adaptability**  
Suitable for both light-duty and heavy-duty machining operations.
- **Strong Corrosion Protection**  
Effectively protects ferrous metals from rust and offers compatibility with non-ferrous metals.
- **Good Biostability**  
Resists bacterial growth, helping extend fluid service life.
- **Improved Tool Life & Surface Finish**  
Reduces tool wear and enhances the surface quality of machined components.

## Applications

SS30 is recommended for various machining operations on ferrous metals, including:

- Turning
- Milling
- Drilling
- Grinding

## Applicable materials include

- Cast iron
- Alloy steel
- Galvanized steel
- Carbon 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.