Saponify dissolved oil

Performance Overview

Maxtop Saponified dissolving oil is a water-based metal-working fluid, made from refined mineral oil, animal and vegetable oils, and a compound emulsifier of sodium soap. It is suitable for medium and low-load processing scenarios such as turning, grinding, and drilling. When it comes into contact with water, it forms a stable emulsion, which has the triple functions of lubrication, cooling and rust prevention. It can effectively reduce the cutting temperature, decrease the thermal deformation of the workpiece and tool wear, and improve the surface finish of the processed surface. It is suitable for general processing of materials such as carbon steel, cast iron, copper and aluminum.

Features

01

It combines the functions of efficient lubrication, rapid cooling, rust protection and debris cleaning, improving processing efficiency and workpiece quality.

02

It forms a stable anti-rust liquid with water, providing short-term protection for workpieces and machine tools. It can replace ordinary anti-rust oil and reduce process costs.

03

It has no irritating odor, is low-toxic, meets industrial hygiene standards, and improves the working environment.

04

The friction between the cutting tool and the workpiece is reduced through sodium soap compound agent, which prolongs the tool life and lowers the wear rate.

Application Scenario

1: Multi-Metal Machining□: Suitable for stainless/steel/Cu-Al alloys, reduces tool wear in medium-low load processes.
2: Precision Gears/Threads□: Enhances tooth/thread finish (Ra≤0.1μm), minimizing polishing.
3: Deep-Hole Drilling□: EP lubrication prevents thermal deformation in heavy-load cutting.
4: Equipment Cleaning□: Antibacterial formula removes debris, extends rust-proofing to 15 days.
5: Hard Material Machining□: Sodium-soap agents reduce friction & tool wear by 30%.

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Performance indicators of saponified dissolved oil

Project	Quality indicators
Appearance	Brown uniform oily liquid
Kinematic viscosity (40℃), mm^2/s	30 ~ 110
Emulsion pH value	7 ~ 9
Emulsion stability (15-35℃, 24 hours), ml	
Oil separation volume	no
The amount of soap separation, % shall not be greater than	Qualified
Emulsion corrosion (cast iron sheet, 15-35℃, 24 hours)	Qualified

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