Product Name: Cutting Oil
Application: Centralized systems
ISO viscosity grade: 32, 46
Quality: Mineral
Recommended for: Boring, milling and tapping on a range of alloy and carbon steels to drilling, reaming and grinding on low carbon and alloy steels and nonferrous metals, Optimus Soluble Cutting Oil can be used equally in individual machine tools or in centralized systems.
Drain Interval: Between 8,000 to 10,000 Operation hours

Product Overview

Cutting Oil is a high-performance, water-insoluble metalworking fluid engineered for precision machining of ferrous and non-ferrous metals. It provides excellent cooling and lubrication, reducing wear and extending tool life while delivering superior surface finishes. The chlorine-free formulation ensures environmental safety without compromising performance.

Application

- Suitable for various machining operations including broaching, thread cutting, drilling, milling, reaming, sawing, and grinding.
- Designed for use on aluminum, non-ferrous metals, steel, stainless steel, and high-alloy steels.
- Ideal for both individual machine tools and centralized systems.

Performance Benefits

- Superior lubrication reduces friction and heat buildup.
- Long tool life with excellent edge retention.
- Outstanding surface finish with minimal residues.
- High resistance to oxidation and thermal degradation.
- Low maintenance and easy to mix for trouble-free operation.
- Low foaming properties ensure stability in high-pressure conditions.

Typical Properties

Property	Method	Unit	ISO 32	ISO 46
Kinematic Viscosity @ 40°C	ASTM D-445	cSt	32	46
Viscosity Index	ASTM D2270	-	100	98
Pour Point	ASTM D97	°C	-22	-20
Flash Point	ASTM D92	°C	210	230
Neutralization Number	DIN 51558 Part 1	mg KOH/g	1.3	1.2
Corrosion Test	IP-125	-	0/1-1	0/1-1
Rust Prevention (Emulsion 20:1)	IP-287	-	Pass	Pass
pH of Emulsion (20:1)	ASTM D1287	-	9.3	9.2
Biodegradability	DIN EN 7	g/100g	0.16	0.15

AREAS OF APPLICATION:

- **Automotive Industry**: Machining operations such as thread cutting, broaching, drilling, and sawing.
- **Industrial Manufacturing**: Used in gearwheel milling, lathe machining, turret lathes, and other general machining operations.
- **Metal Cutting Applications**: Suitable for high-alloy steels, stainless steel, non-ferrous metals, and aluminum.

Health & Safety:

For safe handling, refer to the Material Safety Data Sheet (MSDS). Avoid prolonged skin contact and dispose of used oil responsibly