

MAK SHEROL SUPER

Premium multipurpose semi-synthetic metalworking fluid for Titanium

MAK Sherol Super is a soluble metal working fluid. It is blended from highly refined base oil and special additive to provide superior tool life and other benefits in high speed operations of Titanium. It has very good emulsion stability with hard water (hardness 400 ppm).

Applications:

MAK Sherol Super is designed with high oil content for machining and grinding of Titanium, Aluminium and its alloys. With medium oil content it is also suitable for steel for aerospace, automotive and general industry applications. This high performance oil is recommended for machining like turning, drilling, milling, reaming, boring of ferrous and non-ferrous metals.

Recommended Use	Titanium	Alloy Steel	Cast Iron	Al. Alloy	Yellow Metals
Grinding	√√	√√	√	--	--
General Machining	√√	√√	√	√√	√
Drilling	√√	√√	√	√√	√
Boring	√√	√√	√	√√	--

√√ Main applications, √ Check with supplier

Performance/ Benefits:

High Emulsion Stability – readily emulsifies to form stable opaque white emulsion (oil in water type).

Good Rust Protection – for both machine tools and work pieces.

Good EP Property – provides excellent load bearing capability, protection to tools and superior surface finish.

Low Oil Mist Characteristics – reduces oil consumption due to low fumes.

Micro-emulsion – forms extremely fine emulsion and reaches the point of cutting.

Low Foaming Tendency – helps maintaining continuous oil film between moving parts and allows high pump pressures. Extends tool life.

Environment Friendly – formulation is free of chlorine, phenol nitrites and secondary amines.

Anti-microbial Property – Fortified with biocides and fungicides it resists bacterial and fungal growth. Ensures longer sump life and reduces cost of operation.

Concentration:

Grinding:	3 – 5%
General Machining:	5 – 7%
Difficult Operations:	7 – 10%

Specification:

- Proprietary Grade

Typical Physico-Chemical Data: MAK Sherol Super

Characteristics	Method	Value
Colour, Oil	Visual	Brown
Appearance, Oil	Visual	Clear
Colour, Emulsion (5%)	Visual	Opaque White
Copper Corrosion, 100°C, 3 hrs.	ASTM D130	1a
Emulsion Test, 5:1 & 20:1 ratio in water of 400 ppm hardness (as CaCO ₃)	IS 1448 P:68	No oil, no cream
Frothing Test, 5:1 & 20:1 ratio in water of 200 ppm hardness (as CaCO ₃)	IS 1448 P:99	NIL (no froth) in 30 sec
Corrosion Test, % Break Point	IP 287	3
Cast Iron Corrosion Test 20:1 ratio emulsion with 400 ppm hardness (as CaCO ₃)	IS 1448 Appendix A	0/0-0 (no corrosion) Passes
Refractometer Factor (5%)	--	1.2
pH, at 5% in distilled water	--	9.1

Additive:

Ester	Phenol	Sulphur	Biocides	Chlorine	Fungicides
√	--	--	√	--	√

Storage & Handling:

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 2 yrs. under protected storage conditions.

Health & Safety:

It is unlikely to be hazardous when properly used in recommended applications. Contamination of the coolant from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.