

MAK TRIPONOL TDL

High performance low viscosity forming oil for steel

MAK Triponol TDL is a high performance metal working oil developed for forging application of stainless steel. It is blended from highly refined, high viscosity index base oils with lubricity and extreme pressure additive. It is based on active chemistry and not suitable for yellow metals. Surface finish and die life depend on the lubrication at the die and work piece interface. The chosen lubricity additive ensures reduction of friction at the contact point.

Applications:

MAK Triponol TDL is specially designed for cold and hot forging of stainless steel like fasteners (bolts, nuts, screws etc.). This low viscosity oil is suitable for blanking and stamping of stainless steel. It provides proper lubrication in high speed forming application of steel, stainless steel and nickel alloys.

Recommended Use	Cast Iron	Alloy Steel	Carbon Steel	Al. Alloy	Yellow Metals
Grinding	--	--	--	--	--
Forging	--	√√	√√	--	--
Deep Drawing	--	--	--	--	--

√√ Main applications

Performance/ Benefits:

Excellent EP property – reduces friction between die and the work piece. Provides good shock load bearing capability and protection to tools along with superior surface finish. It has exceptionally high weld load.

High Lubricity – provides excellent lubricity and surface finish. Extends die life.

Low Deposit Formation – leaves little or no deposit on the work piece and the die. Ensures dimensional geometry. Extended period between maintenances.

Low Smoke and Fumes – provides conducive working atmosphere and reduces consumption.

Low Viscosity – provides proper lubrication between the metal and the die. The low friction film is maintained even at elevated temperatures. Induces cooling of the tool and the work pieces.

Specification:

- Proprietary Grade

Typical Physico-Chemical Data: MAK Triponol TDL

Characteristics	Method	Value
Appearance	Visual	Clear
Colour	Visual	Light yellow to amber
Density, g/cc @15°C	ASTM D1298	1.01
Copper Corrosion, 100°C, 3 hrs.	ASTM D130	4a
Pour Point, °C,	ASTM D97	-6
Flash Point, COC, °C	ASTM D92	230
Kinematic Viscosity @40°C, cSt	ASTM D445	65
Weld Load, kg	ASTM D2783	900

Additive:

EP	Ester	Fatty Oil	Sulphur	Zinc	Phosphorus
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Storage & Handling:

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 3 yrs. under protected storage conditions.

Health & Safety:

It is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil 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.