



### CHARACTERISTICS

Usable for:

- Non-alloy steel
- Low alloy steel
- Special carbon steel
- Brass
- Aluminium
- Copper

### **IDEAL FOR**

- mechanical machining and grinding

- medium harsh generic cutting operations

### MAXTREME OIL

This is a whole oil with marked characteristics aimed at the ecological aspects, formulated with bases of natural origin.

Formulated for applications with minimum quantity lubrication systems, it can be used in medium harsh generic cutting operations.

The innovative characteristics of the fluid make it ideal for the generation of air-oil mixture micro particles for internal and external tool operations.

Its composition contributes to protecting the work environment, reducing waste water and lowering consumption.



It is made up of a synthetic-based ester in a compound with greasing, anti-oxidant and metallic passivating agents which, applying a strong synergistic action together, guarantee:

- absence of smoke and vapours in machining;
- a high flammability point for operations in complete safety;
- excellent fluidity even at low temperature and an exceptional wetting power, therefore the oil spreads over the metallic surface quickly and evenly;
- outstanding greasing and lubro-releasing powers for quality finishes;
- good resistance to oxidation and rust;
- good anti-wear powers;
- a high heat removal efficiency with reduced temperatures of the machined pieces.

The product is free of chlorinated derivatives.

Ordering information		
3226692	MaXtreme - Oil 22 Litres	
3226693	MaXtreme - Oil 206 Litres	
3226694	MaXtreme - Oil 980 Litres	
3226700	Maxtreme Oil EV 22 liter (container)	
3226701	Maxtreme Oil EV 209 liter (barrel)	
3226702	Maxtreme Oil EV 980 liter (tank)	

Physical and chemical properties			
	MaXtreme - Oil	Maxtreme Oil EV	
Initial boiling point and boiling range (°C)	100	-	
Flash point (°C)	>250	235	
Relative density(g/cm3)	0.918	0.860	
at (°C)	15	20	
Viscosity (mm2/s)	45	15	
at (°C)	50	40	
Pour point (°C)	<-6	-	

### APPLICATIONS

- Plastic deformation
- Milling
- Lathe turning
- Threading
- Boring
- Cutting
- Deep drawing
- Blanking





## MINIMUM QUANTITY LUBRICATION

The purpose of dry machining is to replace the traditional coolant or whole oil system in a work environment with a compressed air flow, generating an ultra thin film of "aerosol" mixture that goes through the spindle and the coolant channels of the utensil and reaches the cutting point directly.

This guarantees high performance linear lubrication in the machining.

# Minimum quantity lubrication systems (MQL) and Dry machining

The lubrication system can be used in two ways:

External Lubrication: the air-oil mixture arrives on the surface through a nozzle.

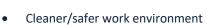
Internal lubrication or "through the utensil": the air-oil mixture, particles smaller than a micron, passes through the spindle and the coolant channels of the utensil and is taken directly onto the cutting area.

DropsA has developed a revolutionary technology for both processes: MaXtreme (internal or through-utensil lubrication) and MiQueL (lubrication external to the utensil).

# **Benefits of MQL**



### **Cleaner/safer work environment**

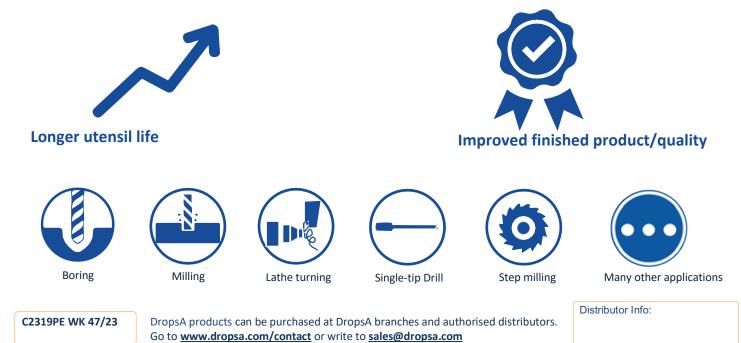


- No mist in the air
- No coolant on the floor
- Coolant management
- No coolant disposal cost
- No separation of the coolant from the swarf
- No need for coolant filtering systems



### Improved system processes

- Reduces down time
- Increases production
- The parts can be seen in the creation phase



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