



APPLICATIONS

Eni Aquamet 500 FG ECO is a semisynthetic cutting fluid with excellent technological features, free of chlorine, boron, secondary amines and bactericides.

Excellent performance in grinding and heavy-duty chips removing on medium-alloyed steels and cast iron, its applications can be extended to aluminum and its alloys after the staining tests verification.

A significant feature of the product is the absence of foam formation in soft and hard waters, even under high pressure delivery.

Suitable for single and centralized plants.

CUSTOMER ADVANTAGES

- Cutting fluid that preserve with care the operators and the working environment, thanks to the absence of chlorine, boron, secondary amines and bactericides
- Low foam formation, even under high pressure delivery
- Suitable for cutting operations with a wide range of water hardness (optimal range: 10-50°F)
- High stability and duration of the emulsion in use
- Excellent machining performance on steels and in particular on cast iron.
- The high detergency of the product guarantees excellent performance in grinding operations.

SPECIFICATIONS & APPROVALS

- ISO 6743/7 MAE





CHARACTERISTICS

Properties	Method	Unit of Measure	Typical
Characteristics of the concentrate			
Appearance	-	-	clear
Density at 15°C	ASTM D 1298	kg/m ³	990
Characteristics of the emulsion			
Aspetto emulsione al 5%	-	-	translucent
pH emuls. 5%	ASTM D 1287	-	9.7
Corrosion test	IP 125	-	pass at 5%
Refractometric factor	-	-	1.7

WARNINGS

- Before start the emulsification operation, it is necessary to carry out adequate cleaning of the tanks and cooling circuits with suitable products.
- Prepare the mixture using an emulsifier, if possible.
- In case of manual mixing, it is recommended to add the product in the water slowly and shaking the mixture. Never vice versa, to avoid problems of emulsion instability.
- To prevent the product deterioration, due to the heat changes for the exposure of the outdoor containers, storage in closed environments at temperatures between +5 and +30° C, is recommended.
- Periodical monitor of the lubricant cooler status is recommended. This is in order to ensure the steady state of the operating parameters and the useful life of the emulsion over time.
- In order to obtain the best results, it is recommended to always follow the above indicated instruction.
- More detailed information will be provided by the Eni Technical Assistance Service.





HANDLING INFORMATION

- Here below are reported the recommended concentrations; However, adjustment of effective concentration is necessary according to the specific operational conditions. Given the complex nature of aluminum alloys, it's suggested to check always the stain test before any processing.

Processing	Cast Iron	Steel, Steel Inox	Aluminum and Alloys
Grinding	6%	6%	
Turning, Milling	7%	7%	7%
Boring, Drilling	8%	8-10%	8-10%

