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## DESCRIPTION

Whether you need to cut, drill, grind, or form metal parts, TotalEnergies Lubrifiants has the right metalworking fluid for you. Our products are designed to meet the highest standards of quality and performance, and to help you optimize your operations.

**Martol** is a versatile range of high-performance forming fluids, shaping a path of consistency for you and your operations.

## **APPLICATIONS**

As the forming operations give off a lot of heat, our Martol soluble oils combine strong lubricating and cooling powers. When used as an emulsion in water, they reduce product consumption.

**Martol Soluble ST** is designed for forming and machining operations on hard steels and aluminum alloys.

## RECOMMENDATIONS

Martol Soluble ST is a doped mineral oil, free from chlorine and formaldehyde additives. It distinguishes itself with very high extreme-pressure properties, ensuring robust performance under demanding conditions. Its excellent lubricity further enhances its effectiveness in various applications. Additionally, it offers easy degreasing using hot alkaline detergents or solvents, simplifying maintenance processes. Notably, it providing efficient cooling, making it a comprehensive solution for industries requiring both lubrication and temperature control.

This lubricant used as recommended and for the application for which it has been designed does not present any particular risk.

A material safety data sheet conforming to the regulations in use in the E.C. can be obtained from your local commercial adviser or down loaded at ms-sds.totalenergies.com

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## **TYPICAL CHARACTERISTICS**

TYPICAL CHARACTERISTICS	METHODS	UNITS	MARTOL SOLUBLE ST
CONCENTRATE			
Density at 15°C	ISO 3675	kg/m³	966
Kinematic viscosity at 40 °C	ISO 3104	cSt	51.8
Base number	ISO 3771	mgKOH/g	11.5
Storage stability:	NF T 60197	1 week	
- at 40 °C	-	-	
- at room temperature	-	-	Good stability
Refractometric factor	-	-	Good stability
			0.86
EMULSION at 5%			
Appearence	Visual	-	Lightly milky
Emulsification	NF T 60187	0 to 5	0
Storage stability	NF T 60187	0 to 2	0
рН	NF T 60193	-	8.3
Corrosion ferrous metals	NF T 60186	C/P	1/2
Aluminium corrosion	-	P/L	0/0
Antirust test (30°TH CaCl12)	IP 287	% rusted	7
Extreme-pressure properties			
Four ball EP test at 10 %	ASTM D 2783	-	
. Load before seizure	-	daN	160
. Welding load	-	daN	200

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