



Spirit 7000 X

Biocide free*, ester-based micro-emulsion for heavy duty machining

DESCRIPTION

Spirit 7000 X is the latest generation of 'non-foaming' highly additivated Biocide free* micro-emulsion

Based on synthetic ester, **Spirit 7000 X** exhibits excellent performance in machining of arduous metals with superior surface passivation

Inherent non-foaming makes **Spirit 7000 X** is perfectly suited for high-speed machining with high pressure coolant delivery systems

Suitable for use in machine tanks or centralized systems and the compatibility with Soft (5°dH) to Hard (20°dH) water for first fill

APPLICATION

Material	Machining
Mild Steels	• •
Stainless Steels	• • •
Aluminum alloys	• • •
Titanium, Inconel, Aerospace alloys	• • •
Copper/Brass	• •
• • • Designed for • • Suitable • Possible	

ADVANTAGES

Spirit 7000 X offers best-in-class versatility and freedom of operating

- **High Lubricity** thanks to ester-based formulation > Higher tool life + Higher productivity
- **Excellent surface passivation** > Reduced rejections
- **Remarkably low foaming** > No overflow + Better tool life
- **Excellent Contamination resistance** > High service life
- **Biocide Free*** > Reduced non-compliance risk

*According to Biocide Product Regulation (BPR) – Regulation 528/2012 – product type (PT13): Working or cutting fluid preservative

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 advisor or downloaded at ms-sds.totalenergies.com

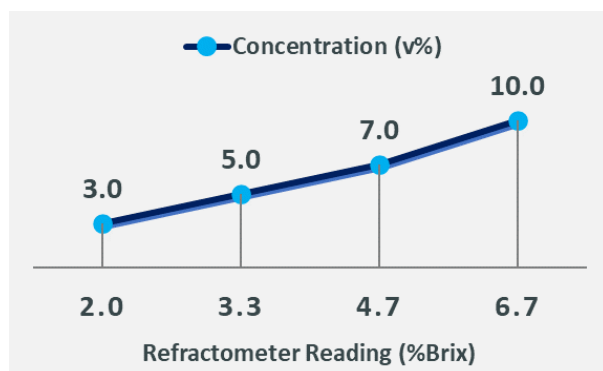
TYPICAL CHARACTERISTICS

Typical characteristics	Methods	Units	Spirit 7000 X
Density @ 15 °C	ISO 12185	Kg/m ³	1020
Appearance 5 % Emulsion (in DM water)		--	Opaque white
pH @ 5 % (in 100 ppm water)	DIN 51369	--	9.5
Corrosion Break point	DIN 51360/2	v%	4
Refractometric Factor			1.5

The characteristics shown in this table are typical values given for illustrative purposes for EU

CONCENTRATION RECOMMENDATION

Application	Minimum	Maximum
General machining	4 v%	5 v%
Heavy Machining	5 v%	10 v%



STORAGE AND HANDLING

- Always wear recommend personal protective equipment while operating.
- Ensure compliance with local regulation during disposal.
- Store in covered well ventilated area, ensuring no direct contact with sunlight, rain, or snow.
- Ideal storage temperature 5 °C to 40 °C.
- Shelf life: 12 months from date of manufacturing.
- For optimum performance regularly monitor and maintain concentration and pH range as recommended.

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