



# Spirit 5000 X

Biocide free\*, Non-foaming micro-emulsion for machining and grinding

## DESCRIPTION

**Spirit 5000 X** is the latest generation of 'non-foaming' 'Biocide Free\*' micro-emulsion. Designed to deliver excellent performance in high pressure coolant delivery systems.

Suitable for both ferrous and non-ferrous metals for operation ranging from general to difficult machining,

**Spirit 5000 X** offers a complete solution for workshops with multiple metals and operation under the same roof.

**Spirit 5000 X** is suitable for use in machines with individual tanks and for centralized systems

Suitable with Soft (5°dH) to Hard (20°dH) water for first fill.

## APPLICATION

Material	Grinding	Machining
Cast Iron	•••	•••
Mild Steels	•••	•••
Stainless Steels	••	••
Aluminum alloys		•

••• Designed for | •• Suitable | • Possible |

## FEATURE > BENEFIT

**Excellent Detergency** > Clean machines & Parts

**Optimum Lubricity** > Improved tool life & Finish

**Remarkably low foaming** > No overflow + Better tool life

**Excellent Contamination resistance** > High service life

**Biocide-Free\*** > Reduced non-compliance risks

\*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](http://ms-sds.totalenergies.com)

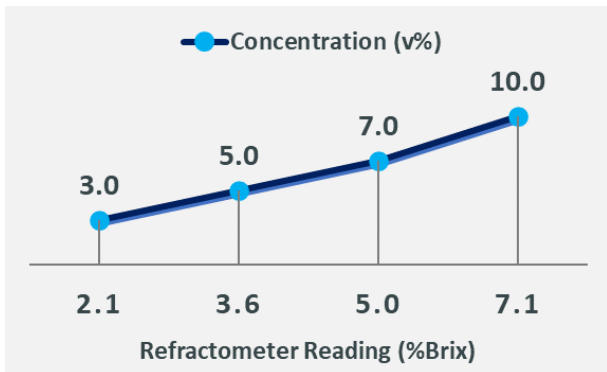
## TYPICAL CHARACTERISTICS

Typical characteristics	Methods	Units	Spirit 5000 X
Density @ 15°C	ISO 12185	Kg/m <sup>3</sup>	1025
Appearance 5 % Emulsion (in DM water)	Internal	--	Translucent White
pH @ 5 %	DIN 51369	--	9.4
Corrosion Break point	DIN 51360/2	v%	5
Refractometric Factor	Internal	--	1.4

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

## CONCENTRATION RECOMMENDATION

Application	Minimum	Maximum
Grinding	5 v%	7 v%
Machining	5 v%	10 v%
ERW Tube Rolling	5 v%	6 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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