SPIRIT 3000

Metalworking

Micro-emulsion specially designed for cast iron, soft & medium hard steels.

APPLICATIONS

- **SPIRIT 3000** has been optimized for grinding and general machining of cast iron, soft steel & medium hard steels:

	Grinding	Milling	Turning	Sawing	Reaming	Tapping	Threading
Cast Iron	R	R	R	R	R	R	R
Low & Medium Alloyed Steels	R	R	R	R	R	P	P
High Alloyed & Stainless Steels	P	P	P	P			

■ Recommended ■ Possible

- Recommended concentration:
  - Grinding : 4-5 v%
  - General machining : 5-7 v%
  - Heavy machining : 7-10 v%
- **SPIRIT 3000** is suitable for water with hardness between 10 and 40 °F.

SPECIFICATIONS

- ISO 6743-7 : ISO-L-MAE.

ADVANTAGES

SPIRIT 3000 has been developed to bring outstanding performances:

- many operations can be handled.
- it brings extended tool life leading to significant cost savings.
- parts quality is enhanced.
- drain intervals are increased thanks to outstanding resistance to bacteria and fungi.
- it presents excellent resistance to corrosion.
- it is suitable for a broad range of water hardness.

HEALTH AND SAFETY

SPIRIT 3000 has been formulated with the safest molecules on the market.
SPIRIT 3000 is operator friendly:

- Boron-free
- Formaldehyde-free
- Formaldehyde releaser-free
- Chlorine-free
- Secondary amine-free.

TYPICAL CHARACTERISTICS	METHODS	UNITS	SPIRIT 3000
Density (@15°C)	ISO 12185	Kg/m^3	1011
pH (5 v%, NW 20)	DIN 51369	-	9.9
Refractometric factor	-	-	2.6
Breakpoint (NW 20)	DIN 51360/2	v%	4

Above characteristics are mean values given as an information.

RECOMMENDATIONS FOR USE

- The lifetime of the bath can be increased by close monitoring:
  - concentration should be measured daily with refractometer (do not forget to multiply the reading value by the refractometric factor).
  - pH should be measured at least weekly.
- Storage temperature : 5-40°C.
- For more accurate analysis, the TOTAL SOLUBLE CHECK will give you more extensive data to prevent any kind of failure of the fluid. You can get in touch with your local TOTAL Sales Representative for further information.