

# SPIRIT NATURA 5000



*Metalworking*



**SPIRIT NATURA 5000 is one of the latest-generation of non-oil derived soluble cutting fluids without mineral oil. The plant resources used make it possible to obtain exceptional performances for all types of ferrous metals and aluminium.**

## APPLICATIONS

- **SPIRIT NATURA 5000** is recommended for heavy to very difficult machining operations on all types of ferrous metals and aluminium.
- **SPIRIT NATURA 5000** does not contain mineral oil. It is suitable for milling, sawing, broaching, thread-forming and deep drilling.
- Recommended rate of use:
  - heavy machining: 5 to 7%
  - very heavy machining: 7 to 10%.

## SPECIFICATIONS

ISO 6743/7

- Code ISO-L MAH

## ADVANTAGES

- **SPIRIT NATURA 5000** is very easy to use, simply by pouring it into good quality water.
- Excellent cooling and lubricant power.
- Efficient protection of machined parts and machines against corrosion.
- Good mechanical performances, providing:
  - Reduced cutting efforts
  - Extended tool lifetime
  - Very good surface finish to parts.
- Properties in service:
  - Excellent stability over time increases drain intervals;
  - Cuttings have low rate of humidity;
  - Good anti-foaming properties.
- Resist to the development of bacteria and mould very well, thus it is more environmentally and operator friendly.
- **SPIRIT NATURA 5000** is formulated from renewable resources to ensure better operator and environmental friendliness.
- Exceptional lubrication performances and very good wetting power due to the plant bases used.
- **SPIRIT NATURA 5000** also guarantees optimal operating conditions without forming sticky deposits.

## HEALTH AND SAFETY

- Does not contain: formaldehyde liberators or boron.
- Is free of: chlorine, PTBB, nitrite, DEA and phenol.
- Is free of: mineral oil.

| TYPICAL CHARACTERISTICS      | METHODS     | UNITS              | SPIRIT NATURA 5000 |                |
|------------------------------|-------------|--------------------|--------------------|----------------|
|                              |             |                    | CONCENTRATE        | EMULSION AT 5% |
| Density at 15°C              | ISO 3675    | kg/m <sup>3</sup>  | 981                |                |
| Kinematic viscosity at 40 °C | ISO 3104    | mm <sup>2</sup> /s | < 70               |                |
| pH at 5%                     | NF T 60 193 |                    |                    | 9.2            |
| Refractometric factor        |             |                    | 1.2                |                |

Above characteristics are mean values given as an information.

## RECOMMENDATIONS FOR USE

- To ensure good conservation of the fluid's properties through time and thus increase its lifetime, we recommend:
  - Regular monitoring of the concentration of the bath with a refractometer. Do not forget to multiply the reading value by the refractometric factor.
  - Regular monitoring of the pH of the emulsion and the hardness of the water.
- Total offers its clients a regular laboratory fluid analysis service:  
*SOLUBLE CHECK.*  
Get in touch with your sales contact to obtain further information.
- Before using any fluid for the first time or before each change, we recommend cleaning the machine with a specific cleaning product:  
*CONTRAM CB 3.*
- If punctual top-ups of Biocide are required, Total offers an efficient product:  
*EBOTEC BT 80.*

Your sales and technical contacts are ready to provide you further information.