



## TECHNICAL DATA SHEET

# Zubora 20 H Ultra FF

Semi-synthetic high-performance cooling lubricant for most difficult machining operations

### PRODUCT DESCRIPTION

- + water-miscible high performance cooling lubricant
- + on the basis of mineral oil
- + free of formaldehyde releasers
- + with high content of polar additives
- + with EP additives
- + long-term stable
- + high corrosion protection
- + excellent resolubility and therefore improved machine cleanliness
- + REACH-compliant substances
- + resistance of plastics as well as of paints and coatings according to VDI 3035

As the product does not contain any secondary amines, there is no risk of formation of nitrosamines according to the current state of knowledge.

Furthermore, **Zubora 20 H Ultra FF** is inhibited against the formation of nitrosamines, i.e. that even if there are any secondary amines and nitrites (e. g. through foreign carry-over) no stable N-nitrosamines can be formed. When exceeding the limit value for nitrite according to TRGS 611 a partial or complete change of the emulsion is not necessary.

### CHARACTERISTICS

Density/15°C / DIN EN ISO 12185	980 kg/m <sup>3</sup>
Viscosity/20°C / ASTM D 7042	165 mm <sup>2</sup> /s
pH-value (5 % in H <sub>2</sub> O) / DIN 51 369	9.1
Cast iron chips test (1:20) / DIN 51 360/T2	Corrosion degree 0

32120

08/2019-32120-2

The statements made in this publication are according to our present knowledge. They do not absolve the user from own examinations. A legally binding assurance of certain properties or suitability for a specific use can not be derived from our statements. Possibly existing laws and regulations concerning the handling and use of our products have to be observed by the receiver of our products himself.



## TECHNICAL DATA SHEET

# Zubora 20 H Ultra FF

Semi-synthetic high-performance cooling lubricant for most difficult machining operations

---

Mineral oil content	30 %
Water hazard class, concentrate	2
Water hazard class, emulsion	(< 81 %) 1
Correction factor for determination of the concentration - refractometer	1.25

---

## APPLICATION

Due to selected highly effective EP additives **Zubora 20 H Ultra FF** is suitable for cutting processes of most difficult demand. The product can be used for machining steel, stainless steel, cast iron and aluminium and also for aluminium alloys as AL 2024 and 7075.

The EP-additives effect a longer tool life and enable the working with high cutting speeds.

Thus, a high process security can be guaranteed even for very difficult working operations. This advantage guarantees high flexibility for different cutting processes mainly in central systems and working centres.

The necessary working concentration depends on the difficulty of the operation and the material.

## WORKING CONCENTRATION

drilling/milling approx. 5 %  
reaming/sawing approx. 10 %

## STORAGE

Recommended storage temperature: +5 °C up to max. +40 °C.

32120

08/2019-32120-2

The statements made in this publication are according to our present knowledge. They do not absolve the user from own examinations. A legally binding assurance of certain properties or suitability for a specific use can not be derived from our statements. Possibly existing laws and regulations concerning the handling and use of our products have to be observed by the receiver of our products himself.



TECHNICAL DATA SHEET

## Zubora 20 H Ultra FF

Semi-synthetic high-performance cooling lubricant for most difficult machining operations

### MISCELLANEOUS

**Zubora** cooling lubricants and our guide and slide way oils **Divinol T 3 EP ISO 32 / Divinol T 6 EP ISO 68 / Divinol T 8 EP ISO 100 / Divinol T 12 EP ISO 220** are optimally compatible with each other. The combined use shows excellent de-emulsification properties, i.e. mixtures of emulsions and slide way oils separate quickly. Black stains can be excluded to a great extent.

If there are increased demands on **corrosion protection**, e. g. for external transport, we recommend our anti-corrosion agents containing hydrocarbons (**Multicor dewatering fluids**). They are optimally adapted to our water-miscible cooling lubricants.

Benefit from our service, we will gladly advise you and develop individual application recommendations for your process. Please also note the material safety data sheet.

32120

08/2019-32120-2

The statements made in this publication are according to our present knowledge. They do not absolve the user from own examinations. A legally binding assurance of certain properties or suitability for a specific use can not be derived from our statements. Possibly existing laws and regulations concerning the handling and use of our products have to be observed by the receiver of our products himself.

3 / 3