



## TECHNICAL DATA SHEET

### Zubora 65 H Ultra

Boron-free, semi-synthetic cooling lubricant of the latest generation - for most difficult metal cutting operations

#### PRODUCT DESCRIPTION

- + semi-synthetic, water-miscible high performance cooling lubricant
- + free of boron
- + on the basis of mineral oil
- + with high content of polar additives
- + with EP additives
- + long-term stable
- + excellent corrosion protection
- + free of formaldehyde releasers

Due to the use of primary amines there is no risk of formation of nitrosamines according to the current state of knowledge.

Furthermore, **Zubora 65 H Ultra** 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	87 mm <sup>2</sup> /s
pH-value (5 % in H <sub>2</sub> O) / DIN 51 369	9.5 (after 4 to 5 days: 9.1 - 9.3)
Cast iron chips test (1:20) / DIN 51 360/T2	Corrosion degree 0
Mineral oil content	18 %

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Water hazard class, concentrate	2
Water hazard class, emulsion	(< 16,6 %) 1
Correction factor for determination of the concentration - refractometer	1.2

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#### APPLICATION

Due to selected highly effective EP additives **Zubora 65 H Ultra** 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. Due to a special formulation **Zubora 65 H Ultra** is particularly long-term stable.

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.

#### Recommended hardness of the preparation water:

> 12° dH.

#### WORKING CONCENTRATION

drilling/milling: approx. 5 %

reaming/sawing: approx. 10 %

#### STORAGE

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

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#### MISCELLANEOUS

This product is dermatologically tested. An Epicutan-test confirms the good skin compatibility.  
We will send you the test certificate on request.

**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.

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