

# Technical Data Sheet

## Zubora Universal FF

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### Product description

- water-miscible cooling lubricant
- on the basis of mineral oil
- applicable for all-purposes
- long-term stable
- high corrosion protection
- free of formaldehyde releasers

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 Universal FF** is inhibited against formation of nitrosamines, this means that even if there are any secondary amines and nitrites (e. g. through foreign carry over), no stable N-nitrosamines can be formed. Even 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:	990 kg/m <sup>3</sup>
Viscosity/20°C / ASTM D 7042:	490 mm <sup>2</sup> /s
pH-value (5 % in H <sub>2</sub> O) / DIN 51 369:	9.3
Cast iron chips test (1:20) / DIN 51 360/T2:	Corrosion degree 0
Mineral oil content:	40 %
Water hazard class, concentrate:	2
Water hazard class, emulsion:	(22,2%) 1
Correction factor for determination of the concentration - refractometer:	1.2

### Application

**Zubora Universal FF** is suitable for metal cutting operations involving steel, cast iron, aluminium and non-ferrous metals. It can be used up to medium difficult operations.

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Furthermore **Zubora Universal FF** is very suitable for grinding.

### Working concentration

Metal cutting approx. 5 - 7%

Grinding approx. 3 - 4%

### Storage

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

### 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.

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