EASYCUT UNI301

UNIVERSAL WATER-MISCIBLE SEMI-SYNTHETIC FLUID FOR CNC MACHINING

Mineral oil based concentrate UNI301 is designed for the machining of alloyed and non-alloyed steels, cast iron, titanium, aluminum alloys, and very limited yellow materials. Great cutting performance and stability.

COMPOSITION FEATURES

- Does not contain boric acid.
- Does not contain formaldehyde.
- Contains secondary amines (DCHA).

PRODUCT PROPERTIES AND ADVANTAGES

- Stable mixing of the emulsion with water hardness from 5° to 30°dH; During operation (accumulation of salts), an increase in water hardness up to 60°dH is allowed.
- High corrosion protection characteristics.
- Low foaming when using water of recommended hardness.
- Good washability (clean equipment).
- A product with a high* pH = increased stability.

TECHNICAL DATA

- Kinematic viscosity of the concentrate at 20°C, mm^2/s — 120.
- ≈Mineral oil content, % — 30.
- pH of fresh 5% emulsion: 10.1*.
- Corrosion protection DIN 51360/2 – 4% — corrosion degree 0.
- **Refractometer factor**, %/°Brix — **1.3**.

SHELF LIFE AND STORAGE CONDITIONS

Stable for 12 months when stored at a temperature of 5 to 40 °C in unopened containers.

RECOMMENDATIONS AND FEATURES

- To prepare a high-quality finely dispersed emulsion, it is recommended to use the automatic mixer device.
- For manual preparation, it is recommended to slowly add the concentrate to the water (not water to the concentrate), mixing evenly.
- The recommended concentration depends on the cutting operations and the material being processed. Turning and milling operations: 6-8% (steel, cast iron) / 7-10% (aluminum)|Grinding: 4-6%.
- The concentration of the working emulsion is measured by a manual or electronic refractometer. To do this, the read value is multiplied by the **refractometer factor** of **1.3**.
- ***EASYCUT*** *UNI301* coolant can be used for processing most aluminum alloys, and limited of copper alloys. However, the tendency of such alloys to form spots (darkening) should be checked in advance.

*The increased pH in the fresh emulsion may cause a temporary strong odor and temporary darkening on aluminum alloys in the first 1-3 days of operation. Afterwords the pH should drops to normal values of 9-9.5.

COMMENTS

Minor variations in color and appearance are possible due to the raw materials chosen. However, these have no influences on the functionality of the product.

All information on safe and proper handling can be found on the MSDS.

DESIGNED IN GERMANY

Coolant Calculator
Please use our on-line coolant calculator for top-up concentration math.

Full ***EASYCUT*** metalworking-fluids portfolio:

Import to Canada: CNCmarket.ca Inc.,
4115 61 Ave SE #2, Calgary, AB T2C 1Z6, Canada

Product technical data sheet (v 2026-01-01)