

Product information

AquaTec 3001

Synthetic grinding fluid concentrate

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AquaTec 3001 is a synthetic EP cooling lubricant that can be mixed with water. It contains no mineral oil and is free of chlorine, amines and nitrite. It is suitable for cutting steel, non-ferrous metal and cast iron, as well as for grinding hard metal.

AquaTec 3001 is used in particular when the work piece needs to be observed during processing. When mixed with water, a colourless solution of high stability and good anticorrosive action is produced. AquaTec 3001 is extremely resistant against micro-organisms and has pleasant odour. Because of the special composition of raw materials the cooling lubricant solution needs very little maintenance. AquaTec 3001 does not stick or resinify. Residues stay liquid and are easily dissolved in water.

AquaTec 3001 has been proven to be dermatologically safe and is biodegradable. When processing hard metal the cobalt contained is not affected by this grinding solution. Therefore the cooling lubricant solution does not become darker in colour but remains transparent, and it does not contain any cobalt salts that are dangerous to health and to environment.

Advantages

- Significantly reduces leaching of binders in cemented carbides
- Superior lubricity and cooling for extended wheel life and workpiece finish
- Excellent rinsing and settling properties for open cutting and good filtration
- Clear mix for good part visibility
- Rejects tramp oil for prolonged sump life
- Low odour and mist levels

AquaTec 3001 does not contain chlorine, nitrite, silicone or phenolic biocides.

Recommended concentrations

Material removal of steel and non-ferrous metal:	3 - 4%
Material removal of cast iron:	3 - 5 %
Grinding of steel:	2.5 - 3.5 %

The above-mentioned concentrations are an average. After on site check our oelheld specialist will recommend an adapted concentration and topping up rate for your application.

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Technical facts:

Form	Yellowish liquid	Typical operating pH-value	9.1
Density at +20°C	1.18 g/cm ³	Viscosity (+20°C)	~150 mm ² /s
Solubility in water	100% miscible	Flash point [°C]	n.a.

Mixing instructions

Always add AquaTec 3001 to water. Mixed concentration can be determined using a refractometer. **Refractometer factor = 1,0**

Concentration	3% (1:33)	4% (1:25)	5% (1:20)	6% (1:17)	7% (1:14)
Refractometer reading	3	4	5	6	7

A mixing device and the use of premixed concentrate as makeup will improve performance and reduce usage. The specific makeup concentration selected for your situation should balance the water evaporation rate with the coolant carry-off-rate. Adding makeup concentrate at 20 – 30% of the desired working concentration will generally maintain the proper concentration in use. The use of deionized or mineral-free water for makeup will also improve performance, prolong sump life, and reduce concentrate usage.

A thoroughly cleaning of the machine sump or central system with system cleaner is recommended to remove oily residues, dirt deposits and biofilms of bacteria and mould before refilling the system.

Notes

- The most recent MSDS is available from either oelheld or your authorized oelheld distributor
- Consult oelheld before using this product on any metals or applications not specifically recommended
- Do not use any metalworking fluid additives except as recommended by oelheld
- The general description, recommended uses, application data and statements in the product literature are guidelines. Because this product may be used for a variety of applications over which oelheld has no control, oelheld assumes no liability for incidental, consequential, or direct damages of any kind, regardless of causes, including negligence.

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