

Press Release



Cutting oil with the precision of a Swiss clockwork

New in the Zeller+Gmelin range: Multicut FSE HSC 15 NF
High-performance cutting oil for the most demanding processes

The manufacture of mechanical watches requires extreme precision, and the materials used are highly demanding. Therefore, a cutting oil is required that guarantees top results even in delicate processes. The new Multicut FSE HSC 15 NF from Zeller+Gmelin meets precisely these requirements.

"Multicut FSE HSC 15 NF is not only used in the machining of all types of steel, but also in the machining of sensitive non-ferrous metal alloys, especially beryllium copper, which is frequently processed in the watch industry," emphasises Dr. Irene Kreitmeir, Product Manager Lubricants at Zeller+Gmelin. "In cooperation with our Swiss distributor Viscotex, various well-known watch manufacturers have meanwhile become aware of Multicut FSE HSC 15 NF. For example, the manufacturer Breitling also appreciates the unproblematic production of the smallest parts with the highest dimensional accuracy".



Sustainable and resource-saving cutting oil

Multicut FSE HSC 15 NF belongs to the so-called FSE oils (formulated on synthetic-ester) in the Zeller+Gmelin range. It is a fully synthetic high-performance cutting oil without mineral oils. Due to the use of ester oils based on renewable raw materials, Multicut FSE HSC 15 NF is sustainable because it conserves resources. And thanks to its synthetic base, the product does not require labelling in accordance with EC Regulation 1272/2008 (CLP) despite a viscosity of less than 21.5 mm²/s.

"Multicut FSE HSC 15 NF is predestined for machining operations such as turning, milling, drilling or even thread cutting and deep hole drilling," says Dr. Irene Kreitmeier, Product Manager



Lubricants at Zeller+Gmelin. "However, our high-performance oil is particularly suitable for machining sensitive non-ferrous metal alloys."



Innovative formulation for more efficiency

A very special, innovative formulation is used for excellent material compatibility with maximum performance. The use of selected, innovative EP additives makes it possible to machine sensitive coloured metal alloys, soft free-cutting steels, case-hardened and heat-treatable steels as well as high-strength, acid-resistant and rust-resistant steels.

An excellent air separation capacity ensures uniform forging. Good heat dissipation and excellent oxidation and ageing stability guarantee the best possible process reliability. Due to the low viscosity, a good flushing and cooling effect is achieved. Low oil mist formation and low evaporation loss significantly reduce lubricant consumption. The cutting oil thus makes an important contribution to economical production.

And Multicut FSE HSC 15 NF also scores in terms of occupational safety: thanks to its high flash point and low emission of hydrocarbons.

Multicut FSE HSC 15 NF (32560)

Article description

- + Fully synthetic high-performance cutting oil
- + based on synthetic esters
- + resource-saving due to the use of ester oils from renewable raw materials
- + free of chlorine and zinc
- + No labelling according to EC regulation 1272/2008 (CLP)

Typical key figures

Colour	lighter 2.0
Density/15°C / DIN EN ISO 12185	880 kg/m ³
Viscosity/40°C / ASTM D 7042	15 mm ² /s
Flash point (according to Cleveland)/DIN ISO 2592	>200 °C
Corrosion effect on copper 2h/100°/DIN EN ISO 2160	1

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