

MEDIA RELEASE

Clariant extends support for manufacturers of fully synthetic metalworking fluids

- Head online for a full set of lubricity improvers, extreme pressure/anti-wear additives, corrosion inhibitors, neutralizing agents & guide formulations for fully synthetic metalworking fluids that increase efficiency at the machine
- Cut formulation complexity and toxicity by using fewer components
- Application-screened solutions offer specific benefits and synergies for high-performing cutting fluids: find out more in our [webinar on October 11, 2022](#)

MUTTENZ, SEPTEMBER 22, 2022

Access the full potential of Clariant's additives to develop high lubricity, fully synthetic metalworking fluids. Launched online today, the uniquely comprehensive set of low-foaming, multifunctional additives is now available alongside formulation guidance to support mineral oil-free, more bio-resistant water soluble fluids that boost machining efficiency, productivity and protection with fewer ingredients.

"Fully synthetic metalworking fluids have been used in ferrous grinding operations for some time, but their use in aluminum cutting has increased more recently. We want to make it easier for lubricant manufacturers to adjust more sustainable products to this new area as demand grows for parts made from lightweight, recyclable metal in industries such as automotive, construction and E&E," comments Hermann Bach, Head of Strategic Marketing & Innovation Care Chemicals, Clariant.

Clariant has now screened additives from across its whole portfolio, testing them in specific applications to determine their benefits for all kinds of high-performing fully synthetic metalworking fluids. Updated webpages provide manufacturers with a full overview of the properties of each ingredient. This new resource presents the best way of formulating them to access their full potential and the synergies between them.

"We're committed to helping manufacturers find and get the most out of multifunctional ingredients to reduce formulation complexity, optimize fluid performance and use-life, increase corrosion protection and support cleaner operations," Bach continued.

Customers can clearly see what is available to achieve their needs, from biodegradable additives and Lubricant Substance Classification (LuSC) listed ingredients compatible with environmental labels, to the support of guide formulations that offer the potential to use less biocide.

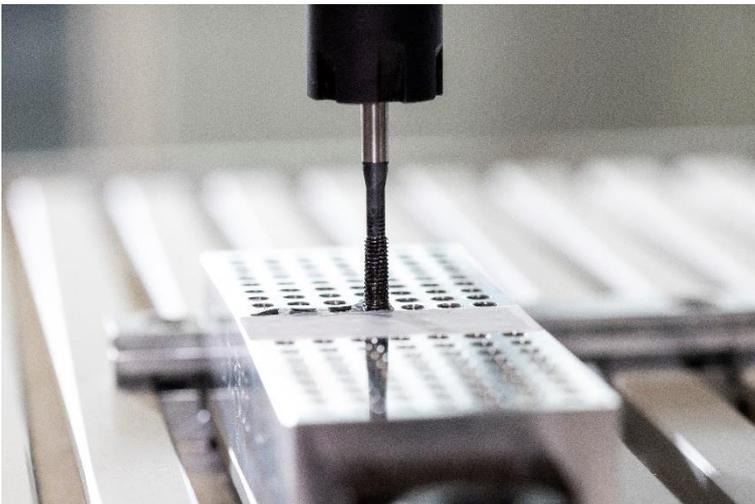
Fully synthetic fluids are an important tool in more sustainable aluminum cutting operations. Clariant's comprehensive set of additives, corrosion inhibitors and agents have no or very low toxicity, with the vast majority being biodegradable and free of health and environmental hazard labels. They include:

Clariant's comprehensive set of additives, corrosion inhibitors and agents, includes:

- A broad portfolio of **water soluble polyalkylene glycols (PAG) lubricity additives** well balanced in lubricity, foam and wetting properties for ease of formulation. Highlights include lubrication and lubricity additives Genapol® RPF 1720 and 1740, specially designed to be used in fully synthetic fluids. They are resistant to water hardness, acids and alkalis and provide a low surface tension as well as low contact angle on steel.
- **Extreme pressure / anti-wear additives** which are water soluble, low foaming and offer excellent performance under extreme lubrication conditions.
- **Multifunctional corrosion inhibitors** which act as corrosion inhibitor, hydrotope and lubricant.
- **Low odor, low foam neutralizing agents** that improve end product odor and also act as a coupling agent to potentially reduce formulation complexity.

Clariant's portfolio also includes those that carry German water hazard class 1 (WGK1) for protection of aquatic life. Alongside the environmental benefits of avoiding mineral oil, the transparent, non-milky compositions of fully synthetic fluids also bring the advantage of improving workpiece and tooling visibility. This supports higher machining rates which can be enhanced further through low-foaming additives.

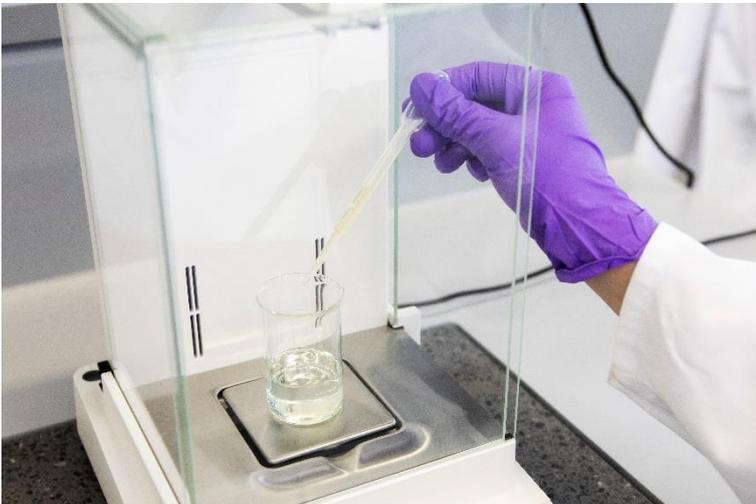
For more information on Clariant's support visit [Clariant.com](https://www.clariant.com). Clariant will also host a webinar on fully synthetics in metal working fluids on October 11, 2022. [Click here](#) to access the event page and register your interest.



Evaluation of lubrication performance with tapping torque test.



Welding load measurement of phosphorous additives in fully synthetic formulations.



Sample preparation for application testing.

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Clariant is a focused, sustainable, and innovative specialty chemical company based in Muttenz, near Basel/Switzerland. On 31 December 2021, Clariant totaled a staff number of 11 537 and recorded sales of CHF 4.372 billion in the fiscal year for its continuing businesses. The company reports in three business areas: Care Chemicals, Catalysis and Natural Resources. Clariant's corporate strategy is led by the overarching purpose of 'Greater chemistry – between people and planet' and reflects the importance of connecting customer focus, innovation, sustainability, and people.

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