





Productive resource lubricant

The technical world is not possible without lubricants. Wherever abrasive or other metal processing technologies are used, an individually selected lubricant is required to obtain the optimum productivity in your metal working process.

But the technological efficiency is only one side. Economics and environmental safety constitute the other side. The quality of cooling lubricants has a decisive influence on the value-added chain; lower operating costs equals higher returns.

Modern machinery, newly developed materials, higher temperature, increasing processing speed – all these are indicators that advanced lubricants are a requirement in the future. Today the “classical” requirements for a cooling lubricant will be highly recommended: Reducing the tool wear, highly effective heat dissipation, cooling of the entire system, transfer the metal chips, anticorrosion and of course human compability.

Add to these facts diversity and specialization of the productive resource lubricant will grow. That’s why you be well advised to seek an experienced professional to find the best solution for your business. With their knowledge you secure yourself a projection in productivity and efficiency for your process chain and fulfill the ecological requirements.



Competence for your success

Although a new business, together they bring competency and experience from decades in the industry. This is how the company "esgemo" lines up itself – with an offer of high quality and highly specialized cooling lubricants.

This serves as a basis for an economical and ecological accurate recommendation for the optimal fluid to serve your purposes.

Esgemo will be your navigator in a broadly diversified product world, bringing their extensive experience into finding solutions. An experience that is represented by the well known and competent expert, Werner Theilacker. Werner's reputation is founded on participating in the development and manufacturing of innovative fluid solutions. On his side as executive partner is Carsten Zahradnik, distinguished by a longtime and relevant industry experience as established merchant and entrepreneur.

Two competences combined with the target to find the best technical and economical solution together with their customers. Every task is different. That's why you will never receive a "standard" solution by esgemo. We find the optimal and individual suitable products for the specific production process to ensure appropriate productivity, service time and lifetime. You can count on this expertise because with Fuchs-Wisura and OKS, esgemo has well-known and market experienced companies by their side.

A close-up photograph of a metal cutting tool, likely a drill bit or end mill, in the process of machining a workpiece. A bright, high-speed spray of coolant is directed at the cutting edge, creating a misty, white plume. The background is a clear blue sky. The image is positioned on the left side of the page, partially overlapping a green header and footer.

Fluent competence: The esgemo-portfolio

Non water-miscible coolants

They are made of base oils like mineral oil, synthetic oil or ester oil, enriched with property improving additives to optimize the lubricity and wear protection, aging resistance, anticorrosion and foaming behavior. Without adding water they are used directly at the editing process

Water-miscible coolants

They are produced as concentrates and divided to emulsions and solutions.

Emulsifiable coolants are made of mineral oil or ester oil enriched with up to 30 additives depending to the specific requirements. Biocides and fungicides play an important role due to the risk of used water contamination.

An emulsifier spreads the lubricants as fine droplets into the water (oil-to-water-emulsion). The concentrations are between 3 and 20 percent depending to the use purpose. Typically for emulsions is a milky-white appearance.

In difference to emulsions the solutions are free of mineral oils and consist of organic materials, i.e. polyglycol. Enriched with additives against corrosion or foaming the concentration of solutions are between 3 and 10 percent. The ingredients of the concentrate go completely into solution what gives the solution a clear and transparent appearance.

Why do a coolants consultation?

- Because cleaning processes between the processing stages can be made obvious
- Because coolants significantly affect the quality of the final product
- Because the correct coolant influences not only the specific process, rather than the following processes
- Because it gives you a long-term productivity assurance
- Because the question of disposal and exploitation is always a cost question
- Because it gives you an improvement of the internal environmental situation.



Dielectric

In the process "Spark Erosion" the requirements to an efficient dielectric always is: Highest possible processing speed, best surface results, optimum by dielectric strength, minimal electrode wear, odor neutrality, low aromatics and health harmlessness. In this process expertise is highly recommended to reach the final aim of a more ignitions per unit and in result a shorter eroding.

Cutting oils

These non water-miscible coolants are used to optimize machining processes. You make use of them when the lubricity is the main effect. Special additives were added to the cutting oils to increase the pressure stability or the surface adhesion. Low viscosity cutting oils are normally used for grinding and honing, mid viscose for drilling, turning and milling and high viscosity oils for difficult machining operations like clearing. By searching for the right base-oils in the esgemo-program there was a special attention for low emissions. On one hand the health of the user is secured, on the other hand higher economics can be achieved by the low evaporation loss.

Grinding oils

By grinding with low to mid grinding wheels circumferential speed the cooling process is the first goal and coolants-solutions or –emulsions are mostly used. With increasing time span volume coolants with antifriction characteristics, non water-miscible coolants, are used. To achieve the economic target of reducing the processing costs there is a complex situation to judge with the characteristics lubricate, cooling, cleaning, wash and corrosion reduction. Make your profit with our experience in all applications by choosing the exact fitting coolant.

Punching and forming oils

Whether it be finely chopping of different steel qualities or punching and thermoform from the coil: Highest efficiency in this process is defined in high cutting performance and surface finish in absolute precision f.e. at high-speed presses. Reliable lubricity has to fulfill the requirements of minimal stamp wear, optimal straight cut and long-time tool service life. Benefit from our consulting expertise to choose the right product, even when the health consideration of the user is to consider. We can offer you a complete series of chlorine-free products, representing the latest state of the art in technical and physiological way.

Special lubrications and special products

The esgemo portfolio contains specialities as oils for extreme applications or unfavorable environmental conditions. Food-safe and skin-protecting products and accessories and devices round out the offer.

Developments

The tempo of technology and market economy daily creates new situations, which cannot be handled or successfully dissolved with existing methods. In the area of lubricants this implies that new products with new characteristics are needed. In the future these requires will be covered by esgemo with the widespread support of Fuchs-Wisura.



The Products

Our portfolio contains a well researched offer of relevant lubricants and coolants for industrial use. We share the demands of our customers for highest quality and efficiency. That's why we do not offer all for every purpose but rather proven top products for special requirements. For that we can fall back to the top quality of renowned manufacturers.

Product-Line esgeCool

The right mix! Our water-miscible coolants offer the optimal product for every application with base ingredients of the best quality. Therefore it stands that the complete program corresponds to the technical regulatory for hazardous materials "TRGS 611".

Furthermore, we offer you individual coolants from amine and boron free to mineral oil-free qualities. Of course they are usable for brass and carbide and suitable for all water cure.

Product-Line esgeGrind

Both on a hydrocrack basis (HC) and in the top quality "Polyalphaolefin" our Grinding-Oil-program covers the highest requirements in the different processes. This includes health safety by minimal oil mist formation as well as clear production advantages. Our cooling lubricants are suitable for hard metals, low-foaming, cutting intensive, easy to filter and compatible with all machine components.

Dielectrics - Product-Line esgeSparc

Our esgeSparc – products stand for maximum efficiency in the field of counter-sinking and from roughing to fine-tuning. Made on a synthetic basis and physiologically harmless they offer the highest ablation in all applications. Equally suitable for copper and graphite electrodes they have a particularly low wear on the electrode.

Product-Line esgeCut

Due to the different viscosities, we approach the individual requirements with our cutting oils – from colored metal to stainless steel. Technically efficient performance is available for every application. In addition, our products are physiologically neutral, chlorine-free, low emissivity and odorless.

Product-Line esgeStamp and esgePress

In the field of non-cutting metal processing, during forming, deep drawing and punching, we start with individual products for every demanded situation. The company's own program is supplemented with "WISURA" products and meets the most stringent requirements for pressure- and temperature-resistant as well as intensively adherent, shear-stable separation and sliding coatings. The offer ranges from conditionally volatilizing punching and drawing oils as well as fineblanking oils for the application areas aluminium and NE, as well as steel and stainless steel. In addition to technical efficiency, our portfolio of chlorine-free products also ensures the latest state of health safety.

Special lubricants and special products

We provide optimal solutions from TUNAP and OKS for requirements beyond standard, ie particularly high or extremely low application temperatures or unfavorable environmental conditions such as salty air or extreme pressure. There are also products available for special application forms, which are geared to highest productivity and profitability.

esgeSparc

WISURA 

OKS 

