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Rhenus Lub international
Official supplier to the French national railway company



Visit us at the
2015 KSS trade
show in Stuttgart.
ICS, stand 2D27





We invest for your benefit!

Dear Sir/Madam,

Rhenus Lub will be hosting a stand at the KSS trade show in Stuttgart — and we would love to see you there. From 5 May to

7 May 2015, we will be presenting two new concepts from the world of coolants. You can get a first-hand look at an innovative device that our experts have developed to revolutionise the way in which coolants are monitored and adjusted. With state-of-the-art sensor technology, it is now possible to monitor the microbiology of coolants almost in real time, more accurately than ever before — and you can even view all this data online on request! This innovation gives you an unbeatable advantage in terms of process reliability and cost-effectiveness. Find out more later on in this issue!

The second key reason to visit us at the trade fair is our new high-performance, future-proof fluid, which requires no special labelling. It is our biggest innovation since we developed the first amine and boric-acid free coolants in our lab in 1991. In Stuttgart, this high-performance coolant that is not subject to labelling requirements will be presented to the public for the very first time. We would love to meet you and tell you more about our new developments at our exhibition stand.

See you in Stuttgart!
Dr Max Reiners

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Rhenus Lub internal

Working for you at Rhenus Lub

A day in the life of Logistics Specialist Uwe Strobel

In our new series, you can get to know some of the members of our team at Rhenus Lub.

Mr Strobel, let's start with a simple question: what do you and your colleagues in the logistics office do?

Uwe Strobel: Everything that goes in and comes out of Rhenus Lub goes via our team. We plan and direct incoming goods and the dispatch of all products to our customers.

What exactly does this role involve?

Uwe Strobel: We make sure that our customers' orders arrive safely and on time. We work closely with experienced service providers to ensure that we are able to provide customers with a high-quality transport chain. We plan consignments, pass on shipments to forwarding agencies, create



49-year-old Uwe Strobel has been co-ordinating the flow of goods from the logistics office at Rhenus Lub for more than 20 years

loading lists and transport documents and take care of customs clearance. Even after goods have left our warehouse, we keep our eye on the shipments until they have safely reached our customers. Only then is our work done.

A special guest in Mönchengladbach

We welcome Nobel Prize winner Jody Williams

On 5 May 2015, as part of the "Mönchengladbach Nobel Prize Winners" event series organised by the Mönchengladbach initiative group, Dr Max Reiners will be welcoming a very special woman: Nobel Peace Prize winner Prof. Jody Williams. She received the award in 1997 for her contribution towards the banning of landmines. Under the patronage of the owner of Rhenus Lub, the US native will discuss her involvement in the fight against landmines and her quest for peace, safety, justice and equality with an audience of approximately 1000 listeners. More information about the event is available at www.ik-mg.de/index.php?s=jody-williams



High-tech lubricants for medical technology

Quality without compromise — for the benefit of health

A long tool life, high level of machining performance, high surface finish quality and excellent washability — even for materials that are difficult to machine, such as titanium, and stainless steel or ceramic. Medical technology applications demand the very best performance from coolants. The fluids—alongside production processes, raw materials and final cleaning—are an essential factor in producing any implant destined for use in the human body.

Standing the test of time

Manufacturers of implants, prostheses and medical tools must be able to rely on the

ability of their selected lubricant to meet all fluid process parameters in a stable and safe way, with a consistently high standard of quality — and also for a long period of time. Rhenus Lub works with customers to define individual requirements for machining performance, surface finish quality, hygiene and flash point, and selects a suitable rhenus coolant from a portfolio of water-miscible and neat oil products that was created specifically for the medical technology sector.

Coolants for medical technology applications also meet the most stringent standards for environmental and health protection.

rhenus lubricants for medical technology — The benefits at a glance:

- Tailor-made solutions for the most demanding applications as well as cost-effective universal products
- Excellent machining and abrasive performance on extremely tough materials such as titanium and ceramic
- Low-emission and skin-compatible coolants

rhenus product portfolio for medical technology

Product	Processes	Material	Parts
rhenus DU 42 P	Deep drawing	Aluminium	Spray cans for the pharmaceutical industry
rhenus EP 15 S	Turning, milling	Highly alloyed Steel, aluminium, brass, plastics such as Tecapeek MT, PTFE, POM	Endoscopes
rhenus EP 22 S	Drilling, turning, milling	Titanium, stainless steel	Implants (knee parts)
rhenus FS 71	Milling, drilling, turning	Stainless steel, aluminium, brass, steel, plastic and titanium	Pump housing and wheels, instruments for minimally invasive surgery
rhenus FU 52 TD	Turning, milling	Highly alloyed Steel, aluminium, brass	Endoscopes
rhenus FU 60 TN	Machining	Titanium, aluminium, brass, stainless steel	Titanium implants, aluminium small parts, brass small parts
rhenus FU 70 W	Machining	Titanium, aluminium, brass	Titanium implants, aluminium small parts
rhenus FU 70 W	Drilling, turning, milling	Titanium, stainless steel	Implants (knee implants), dental implants
rhenus RO 39	Polishing	Steel 1.4441	Components for implants, e.g.: bone nails, screws and for surgical instruments
rhenus TU 43 P	Milling, drilling, turning	Steel, titanium, aluminium	Joints, orthoses
rhenus TU 65-2	Grinding, peeling	Steel 1.4441	Components for implants, e.g.: bone nails, screws and for surgical instruments

Innovative coolants without compromise

High-performance. Exempt from labelling. Future-proof.

The new rhenus FU 800 coolant, which we are set to present to our customers at the KSS trade show in Stuttgart (5 to 7 May), is our latest coolant innovation: For the first time ever, we have developed a fluid that combines all the benefits of a wide range of coolant types in one product. With a significantly reduced pH value and a formula that is free of amine, boron and formaldehyde depot substances, rhenus FU 800 satisfies the requirements of even the most stringent health and safety standards.

But there is one thing that the new fluid does not compromise on — and that's its performance. rhenus FU 800 can be used in a wide range of demanding machining processes, including in the aviation industry or in medical technology.

Less is more

Lubricant experts and users all agree on one point: You can eliminate the risk of skin irritation, reduce health hazards and even prevent potential damage to the

human genome by not including hazardous substances in fluids in the first place. The recipe for the new fluids is based on this idea. rhenus FU 800 is a perfect example of a modern coolant that combines all the positive properties of other products: it is high performance, not subject to labelling requirements and future-proof.

When working on the composition of rhenus FU 800 we took a pioneering approach: Our researchers opted to leave out amine, boron and formaldehyde depot substances. The reduced pH value provides consistent health protection without affecting the stability of the emulsion. In addition, a new emulsifier has also been developed especially for rhenus FU 800. This emulsifier foams less and easily flushes out of the system.

Your benefits at a glance

Our decision to omit these substances provides many benefits for our customers. The consistent amine-free composition of the

coolant prevents the formation of dangerous carcinogenic nitrosamines. Furthermore, as a result of the exclusion of boric acid and formaldehyde, even the smallest risks posed by carcinogens or substances that are toxic for reproduction are eliminated in advance.

The new composition of rhenus FU 800 also has benefits from a legal perspective: The new coolant is not subject to labelling requirements.

Initial tests confirm that machine operators are positive about working with this type of coolant and demonstrate high levels of acceptance. Lengthy training sessions, monitoring of labelling and conversions of machines and systems are now all consigned to the past thanks to rhenus FU 800 — making the new product an exceptionally cost-effective option for our customers.



High-performance — for the challenges of the future

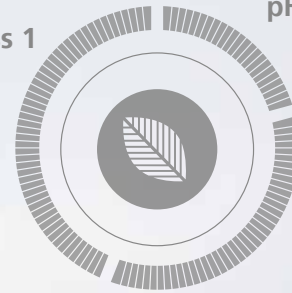
rhenus FU 800 delivered an impressive performance even in the test phase: The new fluid performs faultlessly even in the most demanding machining applications, for example in medical technology or in the automotive industry. In these sectors, many workpieces are made from a single solid piece of material, ranging from grey cast iron to aluminium through to titanium.

Do you have any questions about rhenus FU 800? If so, don't hesitate to contact us. We look forward to welcoming you at the KSS trade show from 5 May to 7 May (stand 2D27, International Congress Center, Stuttgart exhibition centre)

Info: vertrieb@rhenusweb.de

NOT SUBJECT TO ANY LABELLING REQUIREMENTS	NOT HAZARDOUS TO HUMANS OR THE ENVIRONMENT	CONSISTENTLY HIGH PERFORMANCE
<i>Free from formaldehyde depot substances</i>	<i>Low pH value, so kind to the skin</i>	<i>Can be used universally, high performance</i>
<i>Boron-free</i>	<i>Achieved a very good patch test result</i>	<i>Lower consumption, high level of flexibility</i>
<i>Amine-free</i>	<i>Quickly accepted by employees</i>	<i>Clean machines, residue-free parts</i>
<i>No SVHC</i>	<i>Water hazard class 1</i>	<i>Excellent long-term stability</i>
<i>Conforms to TRGS 611, BGR GUV-R 143, VDI 3035</i>		<i>Suitable for use at a wide range of water hardness levels</i>
		<i>Suitable for use with sensitive materials</i>
		<i>Designed to meet the requirements of Industry 4.0</i>

Water hazard class 1



pH value 8.5-9.4

5-20 d



Smart Factory in Mönchengladbach put into operation

A quantum leap in the manufacturing of special greases

Industry 4.0 is a term used to refer to the intelligent linking of all production processes in a company. The digital age is well underway at Rhenus Lub. With the comprehensive modernisation of our grease factory, we made a quantum leap in terms of automation technology and digitalised production to make all our processes standardised and reproducible. In January 2015, we put our new Smart Factory into operation. The benefits for our customers are clear to see: even greater reliability resulting from seamless, traceable and reproducible processes.

Planning well in advance

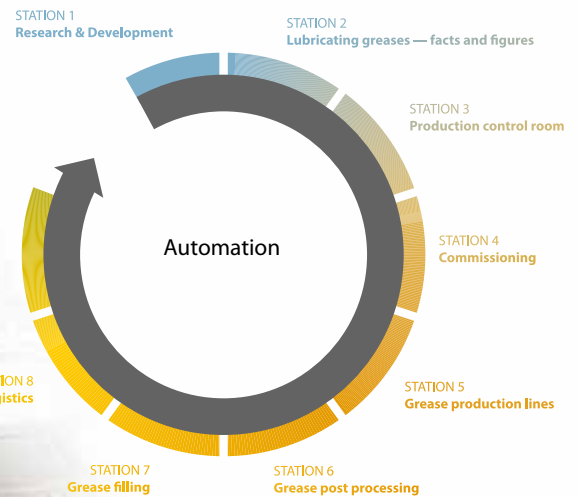
We have long been preparing for our ascent to the top of Industry 4.0 in the chemical industry. When our grease factory was originally built in 2005, all production lines were fitted with electronic sensors, mixers and servomotors. By digitalising our factory, we have now taken a decisive step further.

In co-operation with external experts, we have developed a solution that enables us to automate the majority of our batch control process. The new technology draws on data from goods in, storage and production.

Extremely high level of precision for even better quality

Thanks to our comprehensive process data recording methods, we can produce to an exceptional level of precision. We achieve these high standards in spite of the fact that the properties of the natural raw materials we use often vary. The intelligent use of data and individual algorithms means that we can truly master the various interactions that take place in complex production processes, allowing us to control production more precisely. And the most important result? Greater reliability for our customers — both today and in the future.

Info: kiehl@rhenusweb.de

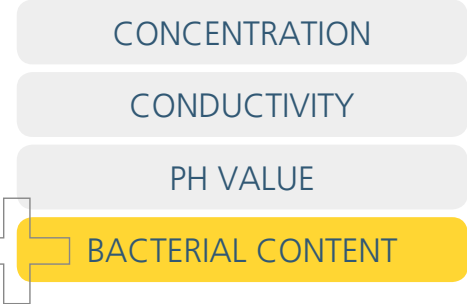


FluidSafe: Microbiology under control in seconds

Coolant maintenance made easy — thanks to innovative measuring technology

The KSS trade show is playing host to the unveiling of FluidSafe, a fully automated device for monitoring coolants. The device is attached directly to the central system and measures standard values such as concentration, conductivity and pH value.

However, its primary use is to determine the level of micro-organisms in the coolant emulsion. This puts our customers at a significant advantage when monitoring and adjusting water-miscible coolants.



"Before now, it took approximately 48 hours to analyse coolant samples, but FluidSafe provides results immediately", says Dr Udo Quotschalla, our Head of Research & Development. The measuring instrument continuously removes samples of the emulsion and checks them. The results can even be transmitted online to customer measuring stations or to our lubricant experts, allowing any system deviations to be identified and counteracted much earlier on.

Info: udo.quotschalla@rhenusweb.de

rhenus lubriningering

Fluid Management from Rhenus Lub for maximum reliability

Always the right decision

Three new fluid management contracts in the first quarter of 2015! How did rhenus lubriningering achieve this feat? We put this question to Project Engineer Rüdiger Fath, whose team played a crucial role in this success. "Our Fluid Management team focuses on fulfilling the objectives of ISO TS 16949 and places reliability and continuous improvement at the forefront of our work for all service and fluid processes. The experience we have gained from our involvement in 60 fluid management projects and our comprehensive fluid expertise plays

a crucial role. We analyse fluid and service processes using performance indicators, and as a result of this, we are able to provide reliable results forecasts at a very early stage. From our experience using the system for numerous projects, we know how well it works and we know that both Rhenus Lub and our customers can rely on it. It is essential to convey this message during the decision-making process. We've been successfully getting this message across with increasing frequency, and that is what has enabled us to win these contracts".

"From our experience using the system for numerous projects, we know how well it works and we know that both Rhenus Lub and our customers can rely on it."

Rüdiger Fath
Project Engineer at Rhenus Lub



Official supplier to the French national railway company

SNCF relies on Rhenus Lub

 As a certified supplier to SNCF, the French national railway company, we are now helping to ensure that passengers are able to travel around France in an even more environmentally friendly way in a high-speed TGV ("train à grande vitesse") train. "We are delighted that SNCF has placed its trust in rhenus LWN 04 for the lubrication of points in the TGV rail network", says Fabrice Himpan, Managing Director of Rhenus Lub France.

This innovative special lubricating grease from Rhenus Lub is expected to provide numerous benefits for SNCF:

As rhenus LWN 04 is water-resistant, easily biodegradable, UV-resistant and has an extremely high adhesion capacity, lubrication intervals can be extended from two to five weeks. Before being approved for practical use, rhenus LWN 04 was subjected to extensive testing by SNCF. "At the end of this process, the SNCF granted the product its approval, which is highly regarded in the industry — and that is a great reference for rail transport operators around the world", explains Fabrice Himpan.

Info: himpan@rhenus-lub.fr

"We are delighted that SNCF has placed its trust in rhenus LWN 04 for the lubrication of points in the TGV rail network."

Fabrice Himpan,
Managing Director of
Rhenus Lub France

Coolants

rhenus KSP & Co.

Innovative lubricant ideas for industry

rhenus KSP multi-functional spray was developed especially for the toughest demands in the industry. The silicone-free spray loosens stuck screws, nuts, bolts or hinges after only a short exposure time, setting the rust remover apart from non-professional products. It's easy to order: customers wanting to put an end to unpleasant squeaking and creaking noises can order rhenus KSP as part of their next lubricant order.

Did you know?

rhenus KSP can be dosed easily and cleanly, and it's just one of the lubricant ideas from Mönchengladbach. We'd be happy to tell you more about the other sprays in our portfolio, from the hot screw separating agent rhenus HTM to our gear wheel spray rhenus ZSP. For more information on all rhenus sprays, simply contact us at:

vertrieb@rhenusweb.de

Important tips for safe handling of coolants

Don't be afraid of coolants

We want our customers to feel safe. So we've published a new flyer to help make coolant handling easier and more user-friendly for you. We have eight tips that are effective and, most importantly, easy to implement — showing your employees how they can quickly and easily prevent skin irritation and increase safety in the workplace right from the start, by following the correct hygiene, caution and care processes.

Want to know more? The new flyer is available to download at <http://bit.ly/1H1bgCs>.



Legal note

Publisher:

Rhenus Lub GmbH & Co KG
Erkelenzer Straße 36
41179 Mönchengladbach, Germany
vertrieb@rhenusweb.de
www.rhenuslub.com

Contact:

Meinhard Kiehl
Telephone +49 (0) 2161 5869-84

Editor:

Relations & Co
Telephone +49 (0) 2161 40645-0
www.relations-co.de

Design:

Alldesign
www.alldesign.de