

# ***MOVING YOUR WORLD***

We move the world with  
efficient and sustainable  
mobility

LUBRICANTS.  
TECHNOLOGY.  
PEOPLE.



## FUCHS LUBRICANTS GERMANY

We don't just develop lubricants. For highly complex challenges in a wide range of industries, we develop innovative lubricant solutions that enable the mobility of tomorrow. Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable. Today and tomorrow.

What can we move for you?



## FUCHS LUBRICANTS GERMANY

### Facts and figures

**Company:** FUCHS LUBRICANTS GERMANY GmbH, a company of the FUCHS Group

**Locations:** Mannheim, Dohna, Kaiserslautern, Kiel and Wedel; approx. 1,400 employees

**Product range:** A full range of more than 3,000 products for all application areas

**Certifications i. a.:** ISO 9001, IATF 16949, ISO 14001, ISO 45001, ISO 50001, ISO 21469, HALAL, KOSHER (detailed certifications at [www.fuchs.com/de/en](http://www.fuchs.com/de/en))

**Gate-to-Gate\* CO<sub>2</sub>-compensated**

FUCHS LUBRICANTS GERMANY is a subsidiary of FUCHS SE, the world's largest independent supplier of lubricant solutions. Around 1,400 specialists at the headquarters in Mannheim and the sites in Kaiserslautern, Wedel, Kiel and Dohna work with dedication on innovative lubricant solutions that enable the mobility of tomorrow.

The high level of technical consulting expertise combined with the largest nationwide network of its own technical contacts makes FUCHS LUBRICANTS GERMANY a reliable local partner. A comprehensive product range, supplemented by digital offerings and Smart Services, as well as many years of lubricant expertise and a high level of research competence are the foundations for the innovative FUCHS lubricant solutions. They reduce wear and energy requirements, extend the running times and service life of machines, and thus keep the world moving - from industrial motors and e-cars to wind turbines and washing machines. FUCHS LUBRICANTS GERMANY is certified to a wide range of standards and, as a technology leader and development partner, places the highest demands on quality management.

Customers in all industries benefit from this quality management: automotive suppliers and OEM, mechanical engineering, metal processing, mining and exploration, aerospace, energy, construction and transport, agriculture and forestry, as well as the paper, steel, metal, cement, forging and food industries, but also qualified lubricant dealers, car dealerships and workshops.

## MOVING YOUR WORLD

\*Gate-to-Gate Scope includes GHG-Protocol Scope 1, 2 and selected Scope 3 emissions (water, waste, business travel, commuting)



"We are focused on advancing the world of rail – not just today, but into a sustainable future. As a proud development and sparring partner, we value collaboration and partnership on an equal footing."



# THE RIGHT LUBRICANT FOR EVERY APPLICATION

In a rapidly developing world, FUCHS is more than just a lubricant manufacturer. With a comprehensive product portfolio, we are your partner in driving the expanding rail market towards a sustainable future.

**SOK**  
Concrete release agents  
Spun concrete mast

**RENOFLUID / RENOLIN / TITAN**  
Oils  
Drive / Power transmission

**CEPLATTYN**  
Adhesive lubricants  
Buffer plates /  
screw coupling

**STABYL**  
Special grease  
Center buffer coupling

**TRAMLUB**  
Fully synthetic semifluid greases  
Switch point lubrication

**LOCLUB / GLEITMO**  
Lubricant solutions  
Wheel flange lubrication /  
top of rail lubrication

**SOK**  
Concrete release agents  
Concrete sleepers

**GLEITMO / STABYL**

Fluid / special grease  
Overhead power line /  
pantograph

**RENISO**

Refrigeration oils  
Cooling systems

**GLEITMO**

Lubricant solutions  
Door seals /  
noise reduction

**GLEITMO / TRAMLUB**

Greases  
Stationary trackside rail flank lubrication /  
stationary top of rail lubrication

**RENOLIT**

Grease  
Axle box gear

**RENOLIT**

Greases

**RENOLIN**

Hydraulic oil  
Air compressor oils  
Brake systems

**CERTIFIED SUSTAINABILITY**

Our products are more than just lubricants. They are drivers of progress, efficiency and sustainability. With EU Ecolabel certifications and approvals from major players, we stand for quality and innovation.



We develop lubricants that are not only better and more efficient, but also actively engage in sustainable product development. Our lubricants are used not only in Europe, but are also literally on the move in Asia, the Americas and Australia.



## ALL ABOUT LUBRICATION WHEEL-RAIL CONTACT



The precise interaction between wheel and rail is crucial for the safe operation of rail vehicles. Our high-quality lubricants play a leading role by ensuring friction-optimized wheel-rail contact. Malfunctions or failures in the lubrication can have a direct impact on driving safety.

Our comprehensive and sustainable product portfolio includes applications for wheel flange lubrication, top of rail friction management and stationary trackside rail flank lubrication.

Our products LOCOLUB ECO PLUS and GLEITMO RFL ECO offer advantageous versatility: they are not only suitable for the wheel flange and the rail flank, but also for noise reduction on the running surface.



**Wheel flange lubrication,  
top of rail lubrication**  
LOCOLUB Range



**Stationary  
trackside rail flank lubrication**  
GLEITMO RFL ECO  
TRAMLUB SSM ECO

**Stationary  
top of rail lubrication**  
GLEITMO RFL ECO





## ALL ABOUT LUBRICATION AXLE BOX GEAR



### Lubricating greases for optimum safety and performance in rail transport

Wheelset bearings play a key role in rail vehicles as the interface between the wheelset and the bogie frame.

Their function is very important as they must meet a large number of technical requirements. High safety requirements are placed on both the wheelset and the grease used.



**Axle box gear**  
RENOLIT LX-AB2



## ALL ABOUT LUBRICATION BRAKE SYSTEMS

In rail vehicle brake systems, our lubricants play a critical role in ensuring the safety and efficiency of vehicle operations and help ensure optimum brake system performance under a wide range of operating conditions.

From high-speed and freight trains to trams, we offer tailor-made solutions to meet the highest demands.

Approvals from leading component manufacturers such as Hanning & Kahl and Knorr-Bremse underline the high quality and performance of our products.



### Greases

RENOLIT HLT 2  
RENOLIT KBS1

### Hydraulic oils

RENOLIN ZAF 32 BHV

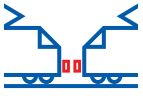
Approved by component manufacturers:

- Knorr Bremse I-N000.23 (Rev. 07-19.10.2021),
- Hanning & Kahl GmbH & Co. KG (01.2022)

### Compressor oils

RENOLIN 500 Range



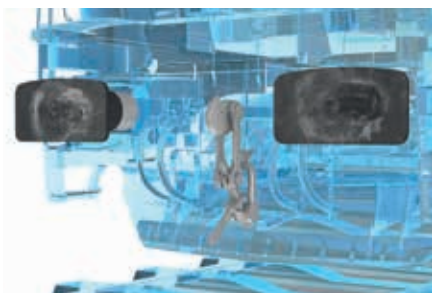


## ALL ABOUT LUBRICATION PUSH AND PULL SYSTEM

The development of train and buffer gear has a long history that is linked to the growth and modernization of rail transport. During operation, the train and buffer gear transmits forces between the coupled vehicles to enable smooth and efficient train operation.

From traditional systems such as buffer plates and screw couplings to today's state-of-the-art automated systems, we offer the right lubricant solutions for all applications.

Our high-quality adhesive lubricants ensure reliable lubrication for buffer plates and screw couplings.



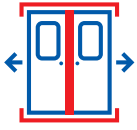
**Buffer plates, screw couplings**  
CEPLATTYN ECO 300 PLUS  
CEPLATTYN R-VGP



**Center buffer couplings**  
STABYL LT 50



We already have the next generation of lubricants with the EU Ecolabel in our portfolio, which meet the latest environmental standards.



## ALL ABOUT LUBRICATION INTERIOR / EXTERIOR

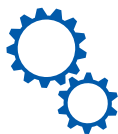
For the exterior, we offer lubricant solutions that protect and maintain door seals and prevent them from freezing, especially when ice builds up on the exterior.

In the interior, our products prevent squeaking and creaking sounds in the passenger area and thus ensure a pleasant travel experience.



**Door seals,  
noise reduction**  
GLEITMO 300  
GLEITMO 980





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## ALL ABOUT LUBRICATION **POWER TRANSMISSION**



We also offer a broad portfolio of lubricant solutions for the core application areas of engines, transmissions and cooling systems. Our fluids play a critical role in the functionality, efficiency, and durability of rail vehicles, helping to make them safer, more reliable and more economical to operate.



**Drive & power transmission**  
RENOFLUID  
TITAN



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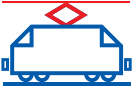
## ALL ABOUT LUBRICATION COOLING SYSTEMS



In the field of lubricants and lubrication technology, refrigeration oils occupy a special place. The long service life expected of refrigeration compressors is closely linked to the high-quality requirements of the lubricants used.

In addition to good miscibility with the refrigerant, good flow properties at low temperatures, high aging resistance and high chemical and thermal stability under the influence of the refrigerant play a key role.

**Refrigeration oils**  
RENISO



## ALL ABOUT LUBRICATION OVERHEAD POWER LINE / PANTOGRAPH



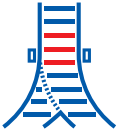
Ice build-up on the overhead power lines can cause significant mechanical and electronic damage, especially if there is no direct contact with the pantograph. This often results in flashovers, which can block the electronics of electrically powered rail vehicles. Such a failure inevitably leads to operational disruptions.

Our GLEITMO RAIL PL fluid excels in the prevention of ice build-ups and is easy to apply.

STABYL LT 50 ensures reliable lubrication of bolts and joints on current collectors. This application guarantees perfect functionality and operational safety under all conditions, especially at extremely low temperatures.



**Overhead power line and pantograph**  
GLEITMO RAIL PL  
STABYL LT 50

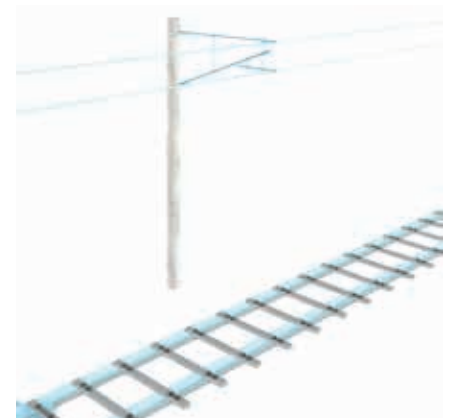


## ALL ABOUT LUBRICATION INFRASTRUCTURE



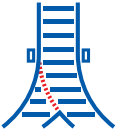
### Concrete release agents for concrete sleepers and spun concrete mast

For the production of high-quality concrete surfaces, it is mandatory to also use a high-quality concrete release agent. We at FUCHS offer a broad and sustainable product portfolio of concrete release agents for numerous applications such as for the production of concrete sleepers, solid tracks, spun concrete masts and tubbings. Our ester oil-based products SOK ECO 107, SOK ECO 911 and SOK AQUA TB 1 offer several versatile applications. In addition, our mineral oil-free SOK HU ECO is used in the production of concrete sleepers where the direct demolding process is applied.



Concrete release agents  
SOK Range





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## ALL ABOUT LUBRICATION

### SWITCH POINT LUBRICATION



Switches are one of the most important elements of rail-borne transport. That's because they enable a change from one track to another and thereby provide the innately rigid rail system with the necessary flexibility and versatility. At the same time, switches are among the structural parts of a railroad that are subject to the most exacting and sensitive demands. If they didn't function reliably a smooth-running train service would hardly be possible.

The challenge is to make switches work effectively and reliably in all weather conditions. A key factor is the switch lubricant with long-term effect, good adhesive strength and corrosion protection. This not only ensures easy and predictable setting regardless of the ambient temperature, but also allows for long-term re-lubrication, even where frequency of use is low.



**Switch point lubrication**  
TRAMLUB 384 G,  
TRAMLUB 384 G PLUS



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## ALL ABOUT LUBRICATION MAINTENANCE

### Effective maintenance

Even when lubricants are used optimally, regular maintenance and repair are essential. The maintenance and repair of vehicles, machines and systems are diverse fields of activity demanding considerable attention and flexibility.

At FUCHS, we understand the importance of a comprehensive approach to care and maintenance and offer a full range of workshop requirements. These range from **special cleaners** and **high-quality assembly pastes** to **products for general care and repair**.







# QUIET PLEASE!



## Noise reduction in rail traffic

Traffic operators are faced with the task of dealing with complaints from local residents about noise and local authority regulations on noise emissions, particularly in curves and at turning points. Traditional solutions often focus on complex, blanket constructive measures, while a simple but effective method is often overlooked: treatment of the rail surface with suitable rail head treatment products to optimize the coefficient of friction.

### Leading the way: top of rail friction modifier for silence and efficiency

**LOCOLUB ECO PLUS** and **GLEITMO RFL ECO** are two innovative top of rail friction modifiers designed to reduce noise in curves, in addition to lubricating the rail flanks. The use of these lubricants with a relatively high content of special solids and proven adhesion creates a fine film of solids. The result is minimization of the friction between wheel and rail, without impairing the necessary frictional connection.



LOCOLUB ECO PLUS and GLEITMO RFL ECO are EU Ecolabel certified and free from environmentally critical additives, including metallic particles, microplastics and PFAS.

Find out more about the outstanding product properties of **LOCOLUB ECO PLUS** and **GLEITMO RFL ECO**



**GLEITMO RAIL PL**  
prevents ice build-up  
and flashovers



## Ice-free and smooth rail traffic – GLEITMO RAIL PL

Ice build-up on overhead power lines can have serious consequences for the operation of rail vehicles. GLEITMO RAIL PL is the latest product from our research and development department. The fluid lowers the freezing point and effectively prevents the formation of ice on overhead power lines.

In contrast to glycerine-based products, GLEITMO RAIL PL offers optimal adhesion and wetting of the overhead power line due to its pseudo-plastic flow behavior. GLEITMO RAIL PL can be applied easily with a contact system or manually, without the need for additional personnel or a service vehicle.



→ Further information  
about GLEITMO RAIL PL







# Environmentally friendly lubricants for tomorrow's railroads

Sustainability is at the forefront of our rail lubricant development work. Through the strategic use of our products, we not only help reduce friction, noise and wear, but also minimize the impact on water, air and soil.

LOCOLUB ECO PLUS sets new standards in the field of loss lubricants. Not only is it readily biodegradable according to OECD 301 B, it is also free of PFAS (per- and polyfluorinated alkyl compounds) and heavy metals. In addition, it has been awarded the EU Ecolabel, which is an important tool for government agencies and auditors in the verification of the use of environmentally friendly products.



This unique combination of performance and environmental friendliness has also convinced the responsible water authority in the capital region, and LOCOLUB ECO PLUS has been approved for use in rail transport.

**LOCOLUB ECO PLUS is the first product with this approval on the German rail transport market.**

This underlines our pioneering role in the development of environmentally friendly lubricants. In addition, LOCOLUB ECO PLUS has a 10% improved carbon footprint\* compared to our previous product, making it an even more sustainable choice for rail transport.

As an expert in the railway industry, we not only provide high quality lubricants and advanced solutions, but are also actively committed to a sustainable future. With our comprehensive product portfolio and our commitment to sustainability, we are your reliable partner for efficient and sustainable rail mobility – now and in the future.

#### Further EU Ecolabel registered products:

- GLEITMO RFL ECO
- CEPLATTYN R-VGP
- GLEITMO RAIL PL (in the registration phase)



\* Carbon footprint (CO<sub>2</sub>e) savings are based on the current FUCHS methodology for partial PCF calculation (cradle-to-gate; based on ISO 14067:2018) and at the time of publication. You can find more information at [fuchs.com/de/en](https://www.fuchs.com/de/en)

## THE RIGHT LUBRICANT FOR EVERY APPLICATION

Product	Type of lubricant	Application area
LOCOLUB ECO PLUS LOCOLUB ECO TRAMLUB F 234 MOD 2	Semifluid grease	Automatic wheel flange lubrication
GLEITMO RFL ECO	Semifluid grease	Stationary trackside rail flank lubrication, top of rail lubrication
TRAMLUB SSM ECO	Grease	Stationary running edge and trackside rail flank lubrication
RENOLIT LX-AB2	Special grease	Axle box gear
RENOLIT HLT 2 RENOLIT KBS1	Synthetic longlife greases	Brake system
RENOLIN ZAF 32 BHV	Zinc- and ash-free hydraulic oil	Brake system
RENOLIN 500 Range	Mineral oil-based VDL air compressor oils	Air compressor
CEPLATTYN 300 ECO PLUS CEPLATTYN R-VGP	Adhesive lubricants	Buffer plates, screw coupling, manual brake spindles, sliding surface lubrication
STABYL LT 50	Special grease	Center buffer coupling, bolts and joints on pantographs
GLEITMO 300	Lubricant with clean lubricating film	Door seals, noise reduction
GLEITMO 980	PTFE solid film lubricant	Door seals, noise reduction
RENOFLUID Range RENOLIN Range TITAN Range	Power transmission oils	Drives, gearboxes
RENISO Range	Refrigeration oils	Cooling system, air conditioning compressors
GLEITMO RAIL PL	Fluid	Overhead power line and pantograph
SOK Range	Concrete release agents	Concrete sleepers, slab tracks, spun concrete masts, tubbings
TRAMLUB 384 G TRAMLUB 384 G PLUS	Fully synthetic semifluid greases	Switch point lubrication

## MAINTENANCE PRODUCTS

Product	Type of lubricant	Application area
RENOCLEAN Range	Cleaner	Multipurpose application in maintenance
GLEITMO Range	Assembly pastes	Connecting component, bolts, slideways
ANTICORIT Range	Corrosion preventives	Multipurpose application in maintenance
NYE Range	Connector lubricants	Electrical connectors



## Innovative lubricants need experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then can the best lubricant system be selected. Experienced FUCHS engineers will be happy to advise on products for the application in question and also on our full range of lubricants.

### Contact:



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