Composition – raw material concepts:
The raw materials we use are subject to high quality standards and regular inspections. This is how we ensure a continuously high level of quality in Klüber speciality lubricants worldwide.

Klüber‘s mineral-oil-based and synthetic gear oils are designed as carefully tuned raw material and additive combinations made for the specific material pairings and stresses of their intended applications. Further results of this harmonisation are low residue formation and the good filterability of the mentioned gear oils.

Some Klüber gear oils are registered as NSF H1 or H2 and hence suitable for use in the food-processing and pharmaceutical industries.

Competence – consulting and service:
In addition to its high-quality gear oils, Klüber offers a comprehensive service portfolio:

Consulting by qualified staff for the selection of the right lubricant, an elaborated Klüber service program for maintenance and repair, analysis and optimisation of your application and special and basic trainings for your staff.

This service supports you by improving your production processes, extending maintenance intervals, reducing energy consumption and hence saving time and costs.

Customers in the food-processing and pharmaceutical industries, who have to observe particularly strict legal requirements and standards, can rely on Klüber’s long-standing experience in this field.

Competitive – high performance level:
For the gear oils to fulfil individual requirements, customer-specific tests on original components and materials as well as additional tests under extreme, above-standard conditions are performed along with the numerous DIN, AGMA and ISO tests.

These include tests using Klüber’s own worm gear test rig, but also dynamic test procedures as part of the Lube & Seal cooperation with Freudenberg Sealing and Vibration Control Technology.

All in all, KlüberComp Lube Technology offers you a special service and a speciality lubricant package which can be tailor-made to suit your individual requirements.

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Klüber Lubrication München KG
Geisenhausenerstraße 7, 81379 München,
Germany, HRA 46624
www.klueber.com

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KLÜBER LUBRICATION

your global specialist

KlüberComp Lube Technology

Gear oils meeting the highest requirements

Gear manufacturers today are faced with ever-increasing requirements: higher power density with either smaller or unchanged gear designs, longer gear running time, higher reliability and last, but not least, ever higher energy efficiency are expected from their products.

High-performance lubricants with above-average performance capabilities help to keep wear low and increase efficiency in your application.

We have combined the requirements of today‘s power transmission technology in a holistic approach named KlüberComp Lube Technology. Whether you are a gear manufacturer or operator, with KlüberComp Lube Technology you can improve the performance capacity of your gears.

With KlüberComp Lube Technology, we incorporate four important aspects:

Components: Total gearbox design
Composition: Lubricant formulations incorporating high-quality raw materials
Competence: Individual consulting and service
Competitive: Highest operational performance levels

Whether mineral oil or synthetic lubricant – due to this holistic approach, many gear manufacturers and operators have opted for gear oils made by Klüber.

KlüberComp Lube Technology is applied in the following gear oil series:

Scope of KlüberComp Lube Technology

Components:
1. Spur gears
Highly loaded gears are potentially subject to seizure and pitting, as the load on the tooth mesh gives rise to high pressures and temperatures which can in turn lead to tooth damage resulting in premature gear failure.

The risk of seizure or pitting is particularly high with “less than perfect” tooth contours and surfaces, impact loads, vibrations, a high degree of sliding friction and high surface pressure. Klüber‘s high-performance gear oils offer improved protection for your gears, particularly in critical applications. Premature failure and repair are prevented.

2. Worm gears
Standard gear oils are made for steel/steel material pairings. Where steel moves against bronze, e.g. in worm gears, conventional additives fail, which may be fatal for the gears. The effectiveness of Klüber high-performance gear oils has been proven. Especially polyglycol gear oils made by Klüber enable significant wear reduction and better efficiency in worm gears such that the manufacturer‘s specifications are often exceeded by far.

3. Rolling bearings
Besides the gear teeth, the bearings in gearboxes also have to be protected against wear and premature material fatigue. All high-performance gear oils based on KlüberComp Lube Technology have been tested on the FAG-FE-8 rolling bearing test rig, which showed their good antiwear characteristics and the positive effect they can have on bearing life.

Consequently, these rolling bearings attain the service life projected by the design engineer.

4. Seals
Wear-induced leakages in radial shaft seals at an early stage force operators to clean and repair gearboxes, both very laborious undertakings. The joint Lube & Seal project of Freudenberg Sealing and Vibration Control Technology and Klüber Lubrication has brought a perfect harmonisation of lubricant and seal.

In this combination, Klüber high-performance gear oils enable uninterrupted operation without premature seal replacement.

Product	Base oil	DIN 51 517, AGMA 9005 designation	Registered as
Klüberoil GEM 1- … N series	Mineral oil	CLP, EP Oil	NSF H2
Klübersynth GEM 4- … N series	Polyalfaolefin	CLP HC, EP Oil	
Klübersynth GH 6- … series	Polyglycol	CLP PG, EP Oil	
Klübersynth UH1 6- … series	Polyglycol	CLP PG, EP Oil	NSF H1