



ZELLER+GMELIN

Forestry + Biograde

Lubricants for environmentally sensitive areas
in agriculture and forestry



Zeller+Gmelin

The brand with the clear plus

Zeller+Gmelin is a medium-sized, international manufacturer of lubricants, printing inks and chemicals. The company with its head office in Eislungen/Fils was founded in 1866.

With 16 subsidiary companies and many partners, we are well connected throughout the world and deliver our high-quality products to more than 80 countries.

We have understood and solved your problems for more than 150 years and will continue to do so in the future. This is how we create a tangible plus for our customers.

Because we understand the customer and develop solutions – reliably, flexibly and tailor-made.

The Forestry + Biograde business unit stands for high-quality top products and has done so for decades.

Forestry + Biograde



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Please take a look at the current MSDS for all products offered.
The MSDS are always available on demand.

* The term "biolubricant" or "bio" refers to a corresponding environmental label or a corresponding OECD 301 test.



Business unit

Forestry + Biograde

FO

The business unit Forestry + Biograde stands for high quality top products and has done so for decades.

In the business unit Forestry + Biograde, everything revolves around lubricants for green care, agriculture, forestry and the construction industry. Zeller+Gmelin is a specialist when it comes to the development of sophisticated lubricants for individual use in the business unit Forestry + Biograde, including saw chain oils, two-stroke oils, special hydraulic oils and other products that we have compiled for you in a broad portfolio.

In addition, we have many years of experience in the field of lubricants and greases. Our products can cover the entire process of lubrication from A to Z. From logging trees to the transport of the wood and the processing of timber in the sawmill, Zeller+Gmelin offers the necessary lubricants. The complete portfolio contains lubricating greases, motor, gear and hydraulic oils for vehicles and stationary equipment, cleaning agents and auxiliaries for machines and tools as well as the actual core products of the business unit Forestry + Biograde, like saw chain oils, two-stroke oils, lawn mower oils and tractor oils. An expansion in the business unit through adding special/alkylate fuels for the application as mixed or separate lubrication completes the range of products from Zeller+Gmelin.

We supply you with the appropriate high performance lubricants for your demanding applications. We will be pleased to advise you on site in order to select the optimum lubricant together with you or to develop a lubricant for your individual requirements. It is not without reason that numerous customers have trusted us for decades. We are certified according to DIN EN ISO 9001:2015, DIN EN ISO 14001:2015 and DIN EN ISO 50001:2018 and guarantee a consistently high quality standard of our products.

We provide you with everything from a single source:

- + Lubricants for forest & garden
- + Lubricants for environmentally sensitive areas
- + Greases
- + Cleaners
- + Engine oils
- + Gear and hydraulic oils



Saw chain oils/fluids; Lubricants for green maintenance

Zeller+Gmelin offers proofed and tested saw chain oils of the highest quality for your hand held saws, biodegradable saw chain oils with ecolabels and/or KWF test. Mineral saw chain oils with a wide range of applications enhance our high quality product choice. Synthetic or semi-synthetic two-stroke engine oils for mixed or separate lubrication in two-stroke engines or engine oils for use in lawn mowers and small tractors/ride-on mowers complete the lubricant range of green care products.

In order to maintain the performance of your machines, Zeller+Gmelin has added alkylate/special fuels to the product range, which lead to less deposits due to cleaner combustion and prevents increased wear in your machines. Especially for the operation of two-stroke engines the product Divinol 2T Mix can be deployed. For the use in four-stroke engines the Divinol 4T Pure is suitable. The special fuel is synthetically produced petrol, which is particularly low in aromatics and therefore less harmful to people and the environment when used. The products Divinol 2T Mix and Divinol 4T Pure are KWF (Kuratorium für Wald und Forst) tested and comply with the Swedish standard SS 155461D.

Product examples:

Environmentally sensitive areas

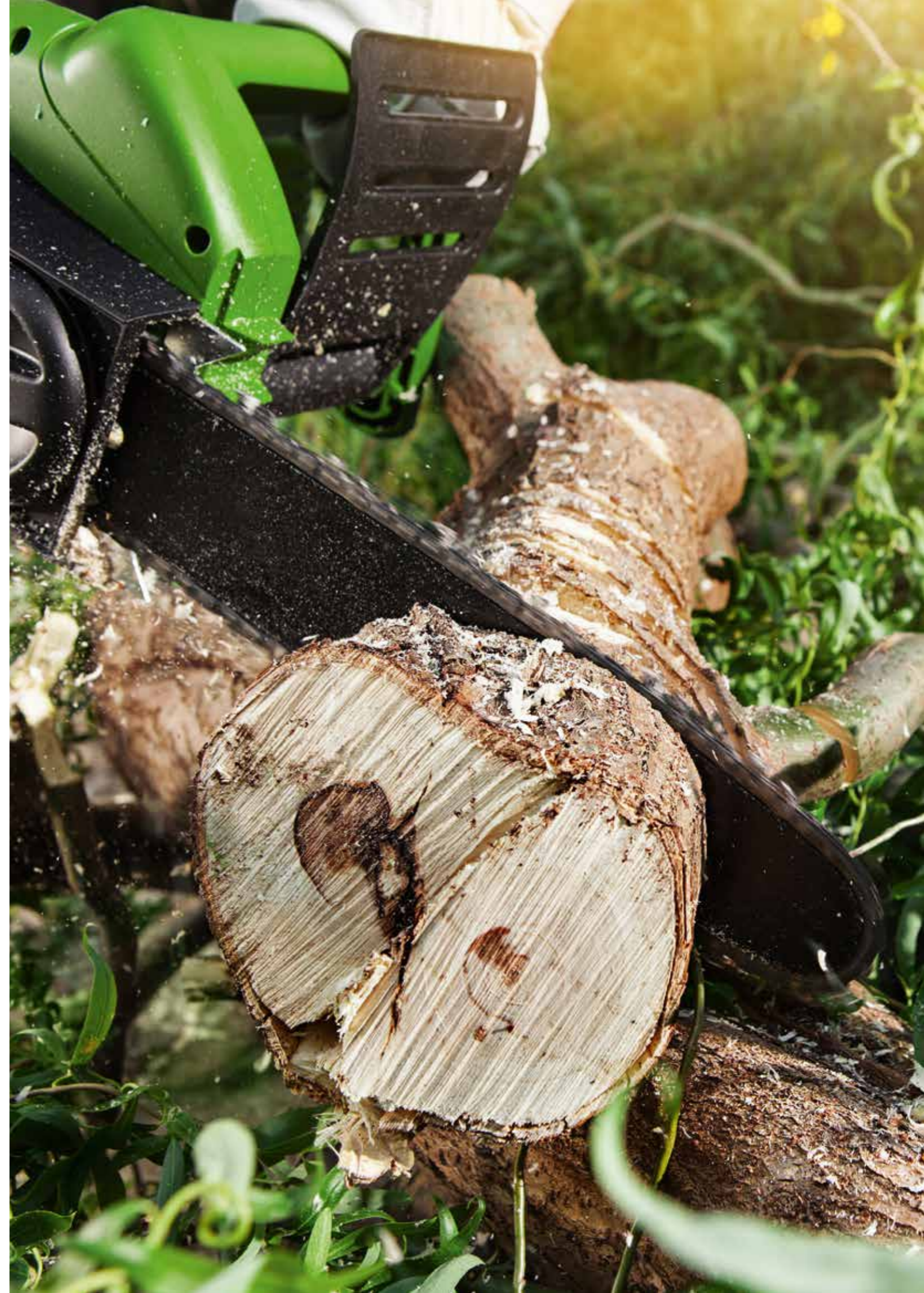
- + Divinol Bio*-Kettenöl R
- + Divinol Bio*-Chain Oil RF
- + Divinol AquaChainFluid

mineral/partially synthetic/synthetic

- + Divinol Kettenöl H
- + Divinol Zweitaktöl FF
- + Divinol Synthetic 2T

Special fuels

- + Divinol 2T Mix
- + Divinol 4T Pure



Harvester

Modern harvesters for logging are high tech machines that require premium quality lubricants. In addition to engine, gear, biohydraulic oils, greases and biodegradable greases, a harvester needs a lubricant for the harvester head – these are high quality harvester chain oils blended on easily biodegradable base oils refined with premium additives.

The biodegradable harvester saw chain oils are blended on renewable raw materials and especially developed for heavy duty chain saws of harvesters, which require increased viscosity and excellent lubricating properties. The criteria for the ecolabel as well as the test requirements of the KWF are fulfilled by Zeller+Gmelins' harvester oils.

Product examples:

Environmentally sensitive areas

- + Divinol Bio*-Kettenöl HV
- + Divinol Bio*-Hydraulik
- + Divinol HE 32/Divinol HE 46
- + Divinol Ecogrease LC 1 EP
- + Divinol Ecogrease LC 2 EP
- + Divinol Fett R 2



Sawmills

During the processing of wood in sawmills, various lubricants are necessary to lubricate the machines and reduce friction when sawing wood – for transporting wood from the timber storage via conveyor belts, debarking the logs, sawing the logs into boards in a saw frame and for various other finishing steps that take place in the sawmill.

A broad portfolio of lubricants is necessary to maintain the production processes in the sawmill. From oils, such as framesaw, gear, saw chain and motor oils to greases and biodegradable lubricants, all types of lubricants are used in a wood processing workshop.

Product examples:

Environmentally sensitive areas

- + Divinol Bio*-Kettenöl R
- + Divinol Bio*-Chain Oil RF
- + Divinol Bio*-Kettenöl HV
- + Divinol Ecogrease LC 1 EP
- + Divinol Ecogrease LC 2 EP
- + Divinol Fett R 2

mineral

- + Divinol Haftöl ISO 68/100/150
- + Divinol Haftöl ISO 220/320/460



Bio* hydraulic oils

Machines and systems need a power transmission medium – the so called hydraulic fluids – filled in the hydraulic units to function properly. In the agricultural and forestry sector, hardly any machine or vehicle functions without hydraulic fluid. In tractors or crop harvesters as well as in logging vehicles often hundreds of litres of hydraulic fluid are needed for operation.

Divinol hydraulic fluids offer suitable lubricants for the complete range of applications, from mineral oil based to synthetic hydraulic fluids. The topic of environmentally friendly, biodegradable hydraulic oils is also becoming increasingly important in view of environmental protection. Here, biodegradability according to OECD 301, ecolabels such as the EU Ecolabel or the Blue Angel, as well as suitability according to ISO 15380, are quality standards on premium biohydraulic oils.

Product examples:

Environmentally sensitive areas

- + Divinol Bio*-Hydraulik
- + Divinol HE 32/Divinol HE 46

mineral

- + Divinol Hydrauliköl HLP ISO 32/46/68
- + Divinol Hydrauliköl HVI ISO 15/32/46
- + Divinol HVLPD ISO 46



Bio* greases

Greases are lubricants in a solid form for applications where liquid lubricants would not remain at lubrication points. Zeller+Gmelin has extensive experience in the development and production of greases. In that product portfolio Zeller+Gmelin offers high quality lubricating greases based on mineral, synthetic and biodegradable bases for a wide range of applications.

In environmentally sensitive outdoor areas, it is often necessary to use biodegradable greases. Generally biodegradable greases can be used for lubrication, where greases on a conventional basis are normally deployed. These high quality biodegradable greases can be formulated on the basis of native esters such as rapeseed oil or synthetic esters to allow the use of your machines in agriculture and forestry, in water protection and water management areas – from retaining weirs to hydroelectric power plants.

Product examples:

Environmentally sensitive areas

- + Divinol Ecogrease LC 1 EP
- + Divinol Ecogrease LC 2 EP
- + Divinol Fett R 2



Forestry/Agriculture

As a farmer or forester, you are faced to special challenges. On the one hand, you are supposed to use natural resources responsibly, and on the other hand, you have to increase productivity. Especially in peak times, such as the harvesting period, you depend on the reliable operation of the machines. Lubricants from Zeller+Gmelin ensure the persistence and functionality of your machines and aggregates.

A constantly changing landscape of oil standards and stricter emission laws lead to more efficient engines that require high quality lubricants. The demands on machines are constantly growing: Larger areas must be managed more efficiently with more complex technology. High performance, safety and reliability of lubricants under the toughest operating conditions becomes increasingly crucial for your economic success.

Whether for tractors, harvesting equipment, forestry machines, milking machines, hydraulic systems or chain saws – lubricants must be perfectly matched to the respective situation and application scenario in order to achieve optimum performance and wear protection. Therefore, you will find in Zeller+Gmelin's portfolio high performance lubricants for tractors (UTTO, STOU), motor & gear oils, lubricating greases, corrosion protection agents, hydraulic oils, milking machine oils and lubricants for wood processing.

Product examples:

Environmentally sensitive areas

- + Divinol Bio*-Hydraulik
- + Divinol HE 32/Divinol HE 46
- + Divinol Ecogrease LC 1 EP
- + Divinol Ecogrease LC 2 EP
- + Divinol Fett R 2

mineral/partly synthetic/synthetic

- + Divinol Multimax Advanced SAE 5W-30
- + Divinol Multimax Premium 10W-40
- + Divinol Multimax Plus SAE 10W-40
- + Divinol Syntrac SAE 10W-40 (STOU)
- + Divinol Spezialöl HGB V-R (UTTO)
- + Divinol Mehrzweckgetriebeöl ST 80W-90
- + Divinol Hypoid-Getriebeöl LS 85W-90
- + Divinol Hypoid-Getriebeöl 85W-140



Asphalt & concrete release agents for environmentally sensitive areas

Combining economy and ecology in a sensible way is a topic that has been of concern to people in our societies for decades. Working in sensitive environmental systems can potentially lead to considerable damage to the environment if the wrong lubricants are used and can implicate high follow-up costs.

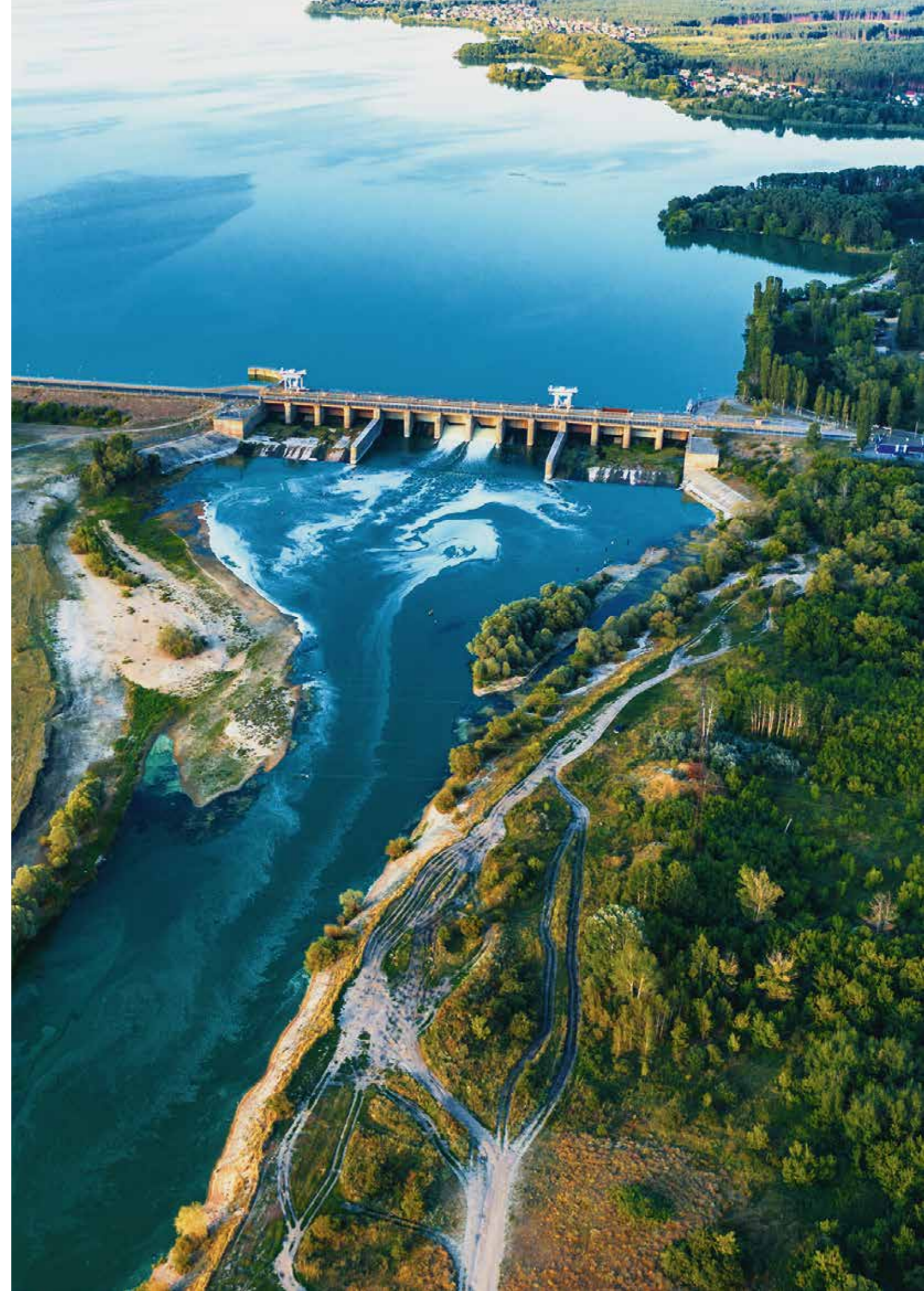
In order to support you as customer in this challenge, Zeller+Gmelin has developed lubricants for environmentally sensitive areas. These combine the idea of ecology and economy, are easily biodegradable according to the OECD degradability test and are technically proven. The lubricants developed by Zeller+Gmelin for environmentally sensitive areas are in no way inferior to mineral oil based products in terms of performance and economy can be used in the same range of technical applications.

We are the specialists for developing sophisticated asphalt and concrete release agents for use in structural and underground engineering as well as in precast plants and for road construction. In addition, we have many years of experience in the field of lubricants and greases. Our products accompany the entire process of concrete processing – from concrete transportation off the mixing plant to the construction site or the precast plant – with Zeller+Gmelin's products for asphalt & concrete release works, concrete mixer protection, lubricating greases, motor, gear and hydraulic oils for commercial vehicles completed by cleaning and auxiliary agents for construction formworks.

Product examples:

Environmentally sensitive areas

- + Divinol Syn BE Plus
- + Divinol Asphalt MP
- + Divinol High Liquid Plus



Forestry + Biograde

Lubricants for
environmentally sensitive
areas
in agriculture and forestry

FEO

Products for the business unit Forestry + Biograde



Saw-chain oils/fluids; lubricants for green care incl. alkylate benzines

Product	Item no.	Description
Divinol Bio*-Kettenöl R	21820	Biodegradable high-performance chainsaw oil based on renewable raw-material. Can be used all year round with excellent adhesion properties as well as anti-wear and corrosion protection properties.
Divinol Kettenöl H	84150	Modern chain oil based on mineral oil with adhesive agent for high-performance motor saws. A very low wear of chains and rails can be guaranteed due to additives which are improving the lubrication.
Divinol Bio*-Chain Oil RF	26160	Bio-based high-performance saw chain oil with protection against gumming. High wear protection, optimum adhesion properties and economical usage. „DIN-Geprüft BIOBASIERT > 85 %“ by DIN CERTCO with the registration number 8C119.
Divinol AquaChainFluid	31920	Water-based high-performance saw chain fluid for chainsaws with plastic tanks. By using special additives, Divinol AquaChainFluid guarantees high performance reserves even under difficult operating conditions as well as optimum corrosion protection for the guidebar and chain. When Divinol AquaChainFluid is used, only a minimum of foreign matter is discharged during loss lubrication. Divinol AquaChainFluid not only protects the environment, but also resources. Readily biodegradable according to OECD 301 B.
Divinol 2T Mix (Alkylatbenzin)	89940	Ready-to-use, tested 2-stroke fuel mixture for many small motor-driven devices such as chain-saws, hedge trimmers, leaf blowers, lawn mowers, brushcutters that can be operated with a two-stroke mixture (in a ratio of 1:50). The KWF test criteria are essentially based on the Swedish standard SS 15 546.
Divinol 4T Pure (Alkylatbenzin)	89930	Is a ready-to-use, tested 4-stroke fuel for many power tools such as lawn tractors and lawn mowers, power generators, go-karts, vibratory plates, snow blowers, cut-off machines, chain saws, hedge trimmers, leaf blowers that can be operated with a four-stroke fuel. The KWF test criteria are essentially based on the Swedish standard SS 15 546.

Harvester oil

Product	Item no.	Description
Divinol Bio*-Kettenöl HV	31780	Biodegradable high-performance saw chain oil on the basis of renewable raw materials. Especially developed for heavy-duty chain saws of wood harvesters, where a high viscosity and excellent lubricating properties are required.

Sawmills

Product	Item no.	Description
Divinol Bio*-Kettenöl R	21820	Biodegradable high-performance chainsaw oil based on renewable raw-material. Can be used all year round with excellent adhesion properties as well as anti-wear and corrosion protection properties.
Divinol Bio*-Chain Oil RF	26160	Bio-based high-performance saw chain oil with protection against gumming. High wear protection, optimum adhesion properties and economical usage. „DIN-Geprüft BIOBASIERT > 85 %“ by DIN CERTCO with the registration number 8C119.
Divinol Bio*-Kettenöl HV	31780	Biodegradable high-performance saw chain oil on the basis of renewable raw materials. Especially developed for heavy-duty chain saws of wood harvesters, where a high viscosity and excellent lubricating properties are required.
Divinol Haftöl ISO 68/100/150	86314/86323/ 86333	Special lubricating oil on the basis of mineral oil with friction-reducing and anti-wear high-pressure additives. It contains anti aging and corrosion protection additives and reduces the oil consumption due to a highly effective adhesive additive.
Divinol Haftöl ISO 220/320/460	86344/86351/ 86361	Special lubricating oil on the basis of mineral oil with friction-reducing and anti-wear high-pressure additives. It contains anti aging and corrosion protection additives and reduces the oil consumption due to a highly effective adhesive additive.

Divinol Bio*-Kettenöl HV

Product	Item no.	Description
Divinol Bio*-Hydraulik	28370	Synthetic, easily biodegradable, saturated ester product (long oil change intervals) based on a high-performance, eco-friendly additive combination. The product has an excellent viscosity-temperature behaviour and can therefore be used all year round. It is intended for use, for example, in hydraulic systems that are predominantly operated outdoors, are exposed to large temperature fluctuations and where environmental contamination due to oil leakage must be avoided. Possible applications e.g. in mobile cranes and excavators, in agriculture and forestry, floating dredgers, sluice hydraulics, ski slope equipment, conveyor systems etc. Divinol Bio*-Hydraulik has excellent properties with regard to oxidation stability, corrosion, low temperature and EP behaviour.
Divinol HE 32/Divinol HE 46	32150/48800	Hydraulic oils based on synthetic, biodegradable esters and a high-performance, environmentally friendly additive combination. With high viscosity index and multigrade character. Preferred use in hydraulic systems that are predominantly operated outdoors, are exposed to large temperature fluctuations and environmental contamination through oil input must be kept to a minimum. Divinol HE 32 Multi-grade character (ISO-VG classes 22-46) Divinol HE 46 Multi-range character (ISO-VG classes 32-68)
Divinol Hydrauliköl HLP ISO 32/46/68	48861/48870/ 48880	High-pressure hydraulic oils for all hydraulic aggregates, (e.g. stationary hydraulic systems).
Divinol Hydrauliköl HVI ISO 15/32/46	48830/48840/ 48820	High-pressure hydraulic oils with high viscosity index for large application areas, especially suitable for highly charged hydraulic aggregates which operate in different climatic conditions (e.g. in the field of mobile hydraulic).
Divinol HVLPD ISO 46	28640	High-pressure hydraulic oils with high viscosity index for large application areas, especially suitable for highly charged hydraulic aggregates which operate in different climatic conditions (e.g. in the field of mobile hydraulic). Due to the detergent/ dispersant additives it absorbs water entry.

Bio* greases

Product	Item no.	Description
Divinol Ecogrease LC 1 EP	30470	Biodegradable lubricant designed for a wide temperature range in roller and slide bearings. Divinol Ecogrease LC 1 EP is also characterised by its conveying characteristics even at low temperatures. It is particularly suitable for use in agricultural and forestry applications as well as in the as well as for the construction industry and water management.
Divinol Ecogrease LC 2 EP	28130	Biodegradable lubricant designed for a wide temperature range in roller and slide bearings. Divinol Ecogrease LC 2 EP is also characterised by its conveying characteristics even at low temperatures. It is particularly suitable for use in agricultural and forestry applications as well as in the as well as for the construction industry and water management.
Divinol Fett R 2	95850	Easily biodegradable, water repellent car grease based on rape oil for thermal-ly low charged lubricating spots with loss-lubrication and for continuous re-lubrication. It is used e. g. in the field of water economy, agriculture and forestry.

* The term "biolubricant" or "bio" refers to a corresponding environmental label or a corresponding OECD 301 test.

Products for the business unit Forestry + Biograde

Forestry/Agriculture

Product	Item no.	Description
Divinol Multimax Advanced SAE 5W-30	49360	Top modern commercial vehicle high-performance engine oil of the very latest generation for the strictest emission limits. Can be used for a wide range of applications. Fuel savings are possible due to its viscosity. Can be used for the longest possible oil change intervals (according to the manufacturer).
Divinol Multimax Premium 10W-40	49110	Modern high-performance engine oil for commercial vehicles of the very latest generation for the strictest emission limits suitable for a wide range of applications. Due to its viscosity fuel savings are possible. It can be used for longest oil drain intervals according to the manufacturer's instructions.
Divinol Multimax Plus SAE 10W-40	49750	MHPD (Maximum High Performance Diesel) diesel engine oil based on HC-synthesis technology with a low sulphate ash, phosphor and sulphur content for commercial vehicles with exhaust aftertreatment systems. Ensures optimum oil penetration, thus ensuring the operability of commercial vehicles, even with extended oil change intervals and the strictest emission limits.
Divinol Syntrac SAE 10W-40 (STOU)	51910	Super Tractor Oil Universal (STOU) for universal usage in agricultural and forestry machinery. Especially for the care of engines, gearboxes, CVT gears, hydraulic systems and "wet brakes" of agricultural equipment and construction machinery.
Divinol Spezialöl HGB V-R (UTTO)	52040	Gear and hydraulic oil (UTTO), which can be used for tractors, agricultural machines and construction engines. The product guarantees an optimal frictional properties and reduces noise in wet brakes.
Divinol Mehrzweckgetriebeöl ST 80W-90	52030	A high-pressure gearbox oil for heavily loaded gearboxes. High-quality base oils as well as modern additive technology enable wide use and optimum lubrication to minimise wear and abrasion.
Divinol Hypoid-Getriebeöl LS 85W-90	80783	Special hypoid gear oil with limited slip additive for extreme requirements in differential gears and differential locks.
Divinol Hypoid-Getriebeöl 85W-140	51980	High-pressure gear oil with a very wide temperature application range. Suitable for highly stressed hypoid axles and transfer cases with the best possible wear protection.

Asphalt & concrete release agents for environmentally sensitive areas

Product	Item no.	Description
Divinol Syn BE Plus	31860	For all common types of formwork used in building construction (phenolic resin etc.), pretreated rough wooden formwork and plastic formwork.
Divinol Asphalt MP	27430	Easily biodegradable, water-miscible asphalt agent for polymer modified and whisper asphalt
Divinol High Liquid Plus	20890	Concrete release agent specially made for GfK formwork facing and coated formwork for high-quality concrete parts



At home + Abroad

We are your plus.

Zeller+Gmelin has got offices worldwide, plus its head office in Eislingen in Baden-Württemberg. Our name stands for reliability and quality, at all times. Our subsidiaries and partners with all their employees ensure this on a worldwide basis.

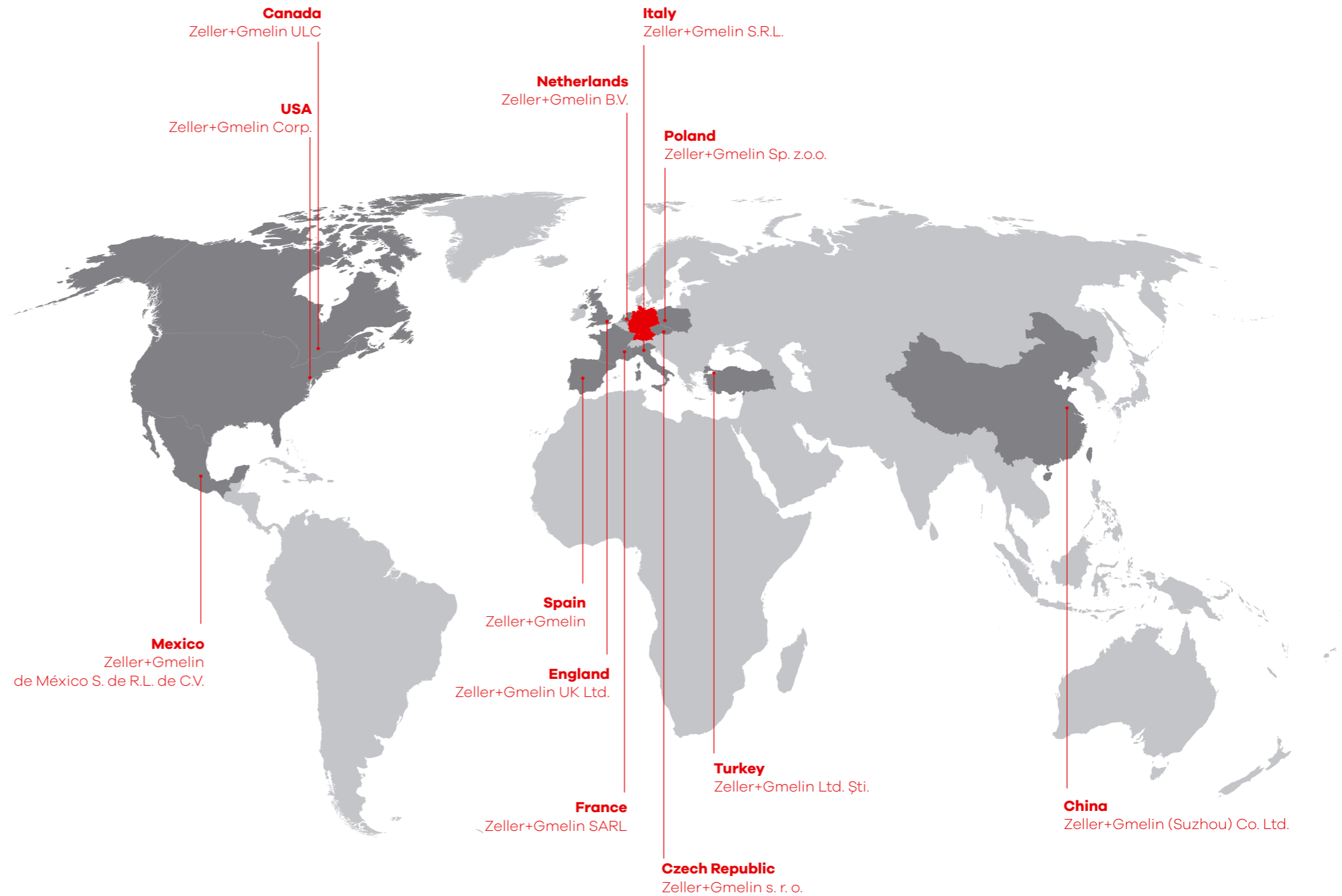
The distinct expertise of our sites and our smooth cooperation are beneficial not just to us, the company as a whole – but also to you, the customer.

The concentrated competence and understanding of processes, application and development, coupled with problem-solving skills and personal advice, are what make Zeller+Gmelin a global figure when it comes to understanding and solving your problems.



Germany

Zeller+Gmelin GmbH & Co. KG
 ZG Fluidmanagement
 SÜDÖL Mineralöl-Raffinerie GmbH
 SÜDÖL GmbH
 SÜDÖL Recycling GmbH



EXPERTLY DONE.

Zeller+Gmelin GmbH & Co. KG · Schlosstraße 20
73054 Eisligen/Fils · Germany
Phone: +49 7161 802-0 · info@zeller-gmelin.de
www.zeller-gmelin.de

