

LUBRITECH ECO-Line

Environmentally-harmless high performance lubricants



LUBRITECH ECO-Line

As a world-renowned producer of lubricants for special applications FUCHS LUBRITECH has for a long time also made a name for itself with environmentally-harmless lubricants. Lubricants for environmentally-sensitive applications have traditionally been included among the range of products manufactured by FUCHS LUBRITECH. These lubricants, the performance of which is in no way inferior to that of traditional lubricants, are summarized in the ECO-Line series.

These lubricants are used for rail traffic, for water management, for wind power plants and for cable cars as well as for the construction industry. In all these areas lubricants are used, for example, for total loss lubrication: this may be for rails and rail switches, it may be for link chains on locks or on construction machinery and open gear drives.

In Germany 1.2 million metric tonnes (world-wide 37 million) of lubricants are used each year, of which approximately 40,000 tonnes are used in environmentally-sensitive areas in the form of classical total loss lubrication. It is unavoidable that these lubricants will pass into the natural environment after a short period of time. FUCHS LUBRITECH's environmentally-harmless lubricants, however, contribute towards ensuring that the environmental impact remains as slight as possible.

Yet even for closed circulation lubrication, for example in shipping and on steel hydraulic structures where considerably greater quantities are used, environmentally-friendly lubricants are often the better choice, because leakages by accident can cause tremendous water pollution.



Rail traffic



LOCOLUB ECO TRAMLUB series

Lubrication in the contact area between vehicle and track in the case of rail-borne traffic is among the technically most demanding problems encountered in tribology. At the same time the demands on the environmental tolerance of the lubricants used are particularly high in precisely this area, because after a short period in operation the latter pass onto the track bed and therefore into the natural environment.

FUCHS LUBRITECH produces a comprehensive assortment of high-performance, environmentally-harmless lubricants for the various lubrication areas (switches, rails, wheel flanges). These are not only of benefit from the environmental aspects but at the same time offer technical advantages, such as significantly better protection against wear and longer service life. The great number of products is occasioned by the large number of stationary lubrication systems as well as by those attached to the rolling stock and the very special requirements. All over the world rail traffic operators are relying on the many years of experience and the high performance level of the lubricants from Weilerbach. A large number of approvals and permits as well as voluminous lists of references confirm this in an impressive manner.



Lubrication for rails and switches with products from the TRAMLUB series for well-known customers operating public transport and the German Railways (DB).

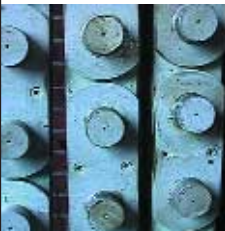
Care and maintenance

Water management



LAGERMEISTER ECO STABYL ECO series CEPLATTYN ECO series

Whenever the use of lubricants in environmentally-sensitive areas comes up for discussion, water management, shipping and steel hydraulic construction are always in the forefront of the areas of application. Attention is almost always initially directed towards the relatively large quantities of circulating



The extremely water-resistant CEPLATTYN ECO 300 is used for link chains on locks.

oil used for hydraulics and gears, because from these applications, caused by leakages, can bring about immense water pollution.

The GEARMASTER ECO and ECO-Hyd hydraulic and gear oils made by FUCHS LUBRITECH are characterised by high biodegradability, low water pollution classification and outstanding technical capability. Among the other areas of application are all kinds of total loss lubrication on chains, wire ropes, open gears and bearings. The quantities of lubricants are certainly relatively low, but these dissipate into the environment after a more or less brief period of duration. For this reason these applications should, if possible, certainly also be handled using environmentally-harmless lubricants.

Wind energy



GEARMASTER ECO series ECO-HYD series STABYL ECO series

The requirements for lubricating technically highly-developed wind power plants are becoming ever more complex. Thus on the one hand ever greater technical demands are being placed on the lubricants used, while on the other these lubricants must comply with tighter environmental guidelines.

FUCHS LUBRITECH has developed, specifically for use on wind power plants, biodegradable gear oils, hydraulic oils and greases with extraordinary protective properties against wear, which have been successfully used in practice for many years. Thus the biodegradable and fully synthetic GEARMASTER ECO 320 gear oil has been approved for use on wind power plants by the most important gear manufacturers. The same is true for the ECO-Hyd hydraulic oils and the different greases in the ECO-Line with respect to the lubrication of open gears and roller bearings, which have similarly proved themselves over a period of years.



One can no longer imagine wind power plants not using oils for gears and hydraulics or greases made by FUCHS LUBRITECH.

Cable cars



CEDRACON ECO series CEPLATTYN ECO series

Possible effects upon the environment must be taken into ever greater account not only for the approval of new cable cars, but also for the operation of existing plant. In order



The functional capability of CEPLATTYN ECO 300 for lubricating cable clamps is maintained even at low temperatures.

to comply with the demands for environmentally compatible operation of such cable cars, FUCHS LUBRITECH has developed biodegradable wire rope lubricants. Among these is, for example, CEDRACON S 3 MOD, a lubricating fluid, free of solids, based on synthetic components.

This lubricant fulfills the regulations for Austrian cable cars and is also rapidly biodegradable. In addition FUCHS LUBRITECH produces special products for the lubrication of rope clamps and slide shoes as well as biodegradable bearing lubricants for the maintenance of cable cars. Biodegradable gear oils or adhesive lubricants are available for the drive units of cable cars according to the type of drive.

Care and maintenance of the plant naturally plays a significant role in all environmentally-sensitive areas. FUCHS LUBRITECH supplies appropriate environmentally-compatible products such as universal cleaners for construction machinery (METALBLANC ECO)

or STABYLAN ECO for use in locks and weirs. The FERROFORM ECO penetrating oil, which is also used as a lubricating and maintenance oil, as well as the all-round corrosion-protection oil DECORDYN ECO, are particularly suitable for general maintenance.



LUBRITECH

ECO lubricants in the construction industry

Construction machinery and loading equipment are being increasingly used in environmentally-harmless areas, such as in sand and gravel pits. The use of rapidly biodegradable lubricants and hydraulic oils makes it possible for the impact on the environment to be kept as low as possible should leakages occur as well as when using total loss lubrication. The special products for the construction sector range from biodegradable greases for general lubrication of construction machinery, such as



LAGERMEISTER ECO 2 or STABYL ECO EP 2 (for increased loads), through corrosion-protection oils (DECORDYN ECO), wire rope lubricants (CEDRACON S 3), ad-

hesive lubricants (CEPLATTYN ECO 300) to a series of biodegradable hydraulic oils of the ECO-HYD S series in the standard viscosity classifications. It is not the person, who lubricates a lot, who cares about the environment, but the person, who lubricates properly. The products developed by FUCHS LUBRITECH provide the best prerequisites.

Together with biodegradable concrete release agents these are used successfully world-wide on surface and underground construction projects.

General summary of the ECO-Line products

Product	Area of application	Features
		T = Temperature range from/to R = Reference
CEDRACON series	For the external conservation of wire ropes of all kinds, e.g. suspension and haulage cables on passenger cable cars, chair-, ski lifts and ski tows as well as for waterway locks and weirs.	T: -40/+80 °C
CEPLATTYN ECO series	Adhesive lubricants for link chains, open toothed gears, wire ropes, gear racks, sliding surfaces on locks and weirs.	T: -20/+80 °C
DECORDYN ECO	Corrosion protection of all untreated surfaces of machines and equipment, e.g. in waste water processing plants, municipal works.	Corrosion protection: 18/6 months (for interior/exterior storage)
ECO-HYD series	Hydraulic fluids for all types of industrial and vehicle hydraulics. Particularly suitable for construction and agricultural machinery.	R: HLP-E 32-100
FERROFORM ECO series	Rust loosener for loosening firmly rusted bolts, for removing moisture, for cleaning and for lubricating.	T: -40/+100 °C (depending on type and application)
GEARMASTER ECO series	Gear oils for spur-, bevel-, planetary- and worm gears in industrial gears, wind power plants and other environmentally-sensitive areas.	R: CLP-E 68-1000
LAGERMEISTER ECO	For open lubrication points usage on construction machinery and agricultural equipment, such as roller and plain bearings, swivelling bolts, sliding guides, small, open gears, wire ropes.	T: -15/+80 °C, short time up to +100 °C R: KPF2E-15
LOCOLUB ECO	Wheel flange lubrication on all types of railway vehicles with excellent wear protection properties.	T: -30/+80 °C
METABLANC ECO	Universal cleaner for vehicles, construction machinery, hall floors and the like.	Water miscible in any proportion
SOK ECO	Concrete release agent based on environmentally neutral ester oils. Suitable for absorbent and non-absorbent moulds made of wood, coated plywood panels or steel.	Has been awarded the "Blue Angel"
STABYL ECO series	Roller and plain bearing greases with outstanding pressure resistance at total loss lubrication points as well as semi-fluid greases for central lubricating systems on commercial vehicles.	T: -40/+120 °C
STABYLAN ECO series	Lubricating fluids for drive- and conveyor chains as well as sliding surfaces on locks and weirs.	T: -30/+100 °C
TRAMLUB series	Lubricating greases and fluids for rail flange-, wheel flange and switch lubrication for all types of automatic lubricating equipment.	T: -30/+100 °C



FUCHS LUBRITECH GMBH
Hans-Reiner-Str. 7-13
67685 Weilerbach/Germany
Internet www.fuchs-lubritech.de

Tel. ++49 (0) 63 74/9 24-5
Fax ++49 (0) 63 74/9 24-9 40
E-mail info@fuchs-lubritech.de