

ELKALUB

High Performance Lubricants



**New H1 oils
with wear
protection
special test**



***Lubricants for the
food-processing and
pharmaceutical industries***

Lubricants for the food-processing and pharmaceutical industries

- Chemie-Technik and ELKALUB** Matchless high-performance lubricants, oil – and fuel additives hallmarked the beginning of “Chemie Technik GmbH” in 1956. Since the focus on high-performance lubricants for industry and craftsmanship in the early 70s our products are sold under the brand ELKALUB.
- Products** For many physically demanding applications we offer a wide range of **greases** and **oils**. Where restricted access to lubricating points occurs we recommend that our greases and oils are used as **aerosol sprays**.
- Applications** Noted for the answer to complicated lubricating tasks ELKALUB high-performance lubricants are the most popular choice. We develop and produce for numerous national and international companies in the following branches of industry: printing, food processing, pharmaceutical, machinery manufacture, automotive and tool making.
- Service & advise** Mechanical systems present always a complex matrix of parameters with various influences. The selection of the proper lubricant requires extensive technical know-how with long-term working experience. Contact us or our partner in your country with your individual requirements for lubrication.

Lubricant consultation: +49 (0) 74 54/96 52-0



Lubricating oils with H1 approval

Paraffin oils

Paraffins are made of mineral oils and are highly refined in order to be used in the food, beverage and pharmacy sectors. By adding of food grade approved substances they offer anti-wear properties to be employed as lubricating oils in machines, technical devices and production plants.

The paraffin oils are of high anti-aging characteristics, resin-free and friendly to plastics and sealing materials.

Designation	ISO VG	Temperature areas	Examples for use
LFC 3015	15	-20°C to +120°C	pneumatic devices hydraulic appliances gear oils circulation oils pumps roller- and slide bearings chains, joints, guides
LFC 3022	22	-20°C to +120°C	
LFC 3032	32	-20°C to +120°C	
LFC 3046	46	-20°C to +120°C	
LFC 3068	68	-15°C to +120°C	
LFC 3100	100	-15°C to +120°C	
LFC 3150	150	-15°C to +120°C	
LFC 3220	220	-10°C to +120°C	
LFC 3320	320	-10°C to +120°C	
LFC 3460	460	-10°C to +120°C	
LFC 3680	680	-10°C to +120°C	
LFC 31150	1150 mm ² /s (40°C)	-10°C to +120°C	
LFC 34068	68	-15°C to +120°C	special-gear oils with paramount anti-wear properties from 40°C onwards
LFC 34100	100	-15°C to +120°C	
LFC 34150	150	-15°C to +120°C	
LFC 34220	220	-15°C to +120°C	

Poly-Alpha-Olefines (PAO)

PAO's are synthetic hydrocarbons with a chemical structure similar to those of mineral oils, but don't have the typical disadvantages of mineral oils as such. These oils own outstanding low –and high temperature stability and will not tend to carbonate or form any residues. Further they show up an excellent air and water separation.

Designation	ISO VG	Temperature areas	Examples for use
LFC 9032	32	-45°C to +150°C	hydraulic devices gear oils circulation oils compressors roller- and slide bearings chains, joints, guide systems
LFC 9046	46	-45°C to +150°C	
LFC 9068	68	-40°C to +150°C	
LFC 9100	100	-40°C to +150°C	
LFC 9150	150	-40°C to +150°C	
LFC 9220	220	-35°C to +150°C	
LFC 9320	320	-35°C to +150°C	
LFC 9460	460	-30°C to +150°C	
LFC 9680*	680	-20°C to + 150°C	
LFC 91000*	1000	-20°C to + 150°C	

* LFC 9680 and LFC 91000 can be considered as H1-type oils

Polyglycol oils

The polyglycol oil series LFC 8000 are fully synthetic high-performance lubricants and are well suited for applications when slide-friction is a given fact. These polyglycol oils are almost not or not miscible with other oils. Unfriendly to many agents like lacquer, colours, sealing materials and plastics.

Designation	ISO VG	Temperature areas	Examples for use
LFC 8150	150	-20°C to +120°C	gears, in particular worm drives, chains and guide systems
LFC 8220	220	-20°C to +120°C	
LFC 8320	320	-20°C to +120°C	

Special oils

The products listed underneath have been developed for particular applications shown below.

Designation		Temperature areas	Remarks
VP 705	340mPas (25°C)		Slide & separation oil made of silicone
VP 784	27 mm ² /s (40°C)	-20°C to +120°C	Grease enriched oil for use in wet areas
VP 806	ISO VG 32	-30°C to +140°C	Oil for sewing machines (sewing of paper sacks)
MBF 360	17mPas (40°C)		Very liquid corrosion protection and lubricant
MBF 370	60mPas (40°C)		Long term corrosion protection and lubricant
LA 8 H1	4000 mm ² /s (40°C)	-10°C to +80°C	Lubricant of good adhesion for heavy chains and open areas

Lubricating greases with H1-approval

Designation	NLGI	Temperature areas	ndm values	Base oil/Thickener	Remarks
GLS 305		-5°C to +120°C		M;oV;aoV	Assembly grease for alloy steel and brass joints, even under salt water influence; for open lubricating areas
GLS 363	3	-25°C to + 120°C (+140°C)	200.000	M;aoV	For roller & slide bearings; best adhesion
GLS 364	2	-10°C to +120°C (+150°C)	>600.000	M;Ph	For cutter shaft bearings, slicer, sausage filling devices and sealing of sterilizers
GLS 367	2;00;000	-10°C to +130°C (+180°C)	100.000	M;aoV	For roller and slide bearings, gears, guides and open lubricating points
GLS 380	2;1	-10°C to +120°C (+180°C)	200.000	M;Al	In the first instance for slide bearings and guides -non-ferrous/steel pairings.
GLS 381	00;000	-20°C to +120°C (+150°C)		M;Al	Semi-liquid gear grease with high water resistance.
GLS 388	2;1	-10°C to +100°C (+130°C)	200.000	M;Al	High adhesive grease for roller and slide bearings, guide systems and open lubricating areas.
GLS 595	3;2	-40°C to +250°C (+300°C)	100.000	PFE;oV	High temperature grease for roller and slide bearings. Can't be mixed with other greases
GLS 794	3;2;1;0	-40°C to +180°C (+200°C)	100.000	Si;oV	For sliding actions, valves, guides, O-ring-assembly; will not influence beer foam generation
GLS 867				PG;aoV	Assembly grease for EPDM-sealing of filling devices; easy to be removed; Released by Messrs Krones
GLS 964	2	-20°C to +130°C (+150°C)	500.000	PAO;Ph	Synthetic grease for roller and slide bearings; good sealing behaviour because of its thixotropy characteristics
GLS 967	1-2	-15°C to +130°C (+150°C)	100.000	PAO;aoV	Increased resistance to water, acids and alkalis with excellent load carrying capabilities.
GLS 993 H1	1	-40°C to +150°C (+200°C)	100.000	PAO;oV	For pneumatic cylinders, slide motions, gears, actuators, etc.
VP 873	2	-20°C to +140°C	100.000	M;synt. Oil;oV	For roller- and slide bearings running under high load as well as open lubricating points.
VP 874	2	-20°C to +120°C	600.000	M;synt. Oil;oV	In particular for linear guide systems (recommended by Bosch-Rexroth) and for roller and slide bearings
VP 886	2	-30°C to +120°C (+140°C)	300.000	PG;aoV	Well suited for roller- and slide bearings under UV-beaming influence.
VP 889	2	-15°C to +130°C	100.000	PAO;M;E;aoV	Designed for chains of sterilizers, high resistance to water, acids and alkalis
VP 890		-35°C to +140°C		PAO;oV	Very soft and synthetic semi-liquid gear grease with increased anti-wear protection properties.

Lubricating greases with H2-approval

Designation	NLGI	Temperature areas	ndm values	Base oil/Thickener	Remarks
GLS 962	2	-40°C to +170°C (+250°C)	600.000	PAO;Ph	Roller- and slide bearing lubrication under high temperature conditions.
GLS 965	3	-40°C to +170°C (+250°C)	600.000	PAO;Ph	High temperature grease for roller and slide bearings under high technical load.

Ndm-value: $ndm = \frac{1}{2} (\text{bearing outside dia.} + \text{bearing internal dia.}) \times \text{revolution}$ Diameters in mms; Revolutions in r.p.m

Legend: M = Mineral oil; E = Ester; PAO = Poly-Alpha-Olefins; Si = Silicone; PFE = Perfluorinated ether oil; PG = Polyglycole; Al = Aluminium; Ph = Polyurea; aoV = anorganic thickener; oV = organic thickener

Sprays and technical liquids with H1-approval

Designation	Temperature areas	Remarks
FLC 8 H1	-20°C to +100°C	High viscous and very adhesive spray for heavy duty transmission chains, cams, curve discs, guide systems, slides and open cogwheels; FLC 8 H1 is noise absorbing. The active substance of LA 8H1 has been tested by the chain producer Renold in a very positive way.
FLC 367	-20°C to +130°C (+180°C)	Grease spray showing high resistance to steam, acids and alkalis. Well tested with transmission and lift chains, guide systems, spindles. Further a good means for assembly of sealing,
FLC 675 R+S		Cleaning agent for oil- and grease mudded machinery components with lubrication effects. The remaining thin oil layer offers a short-term lubrication and avoids a dry-running at machine components being in motion. (example transmission chains)
FLC 745	max. +170°C	This medium-viscous silicone spray forms a visual not perceptible, thin, non-glueing sliding layer which can be applied on metal, non-metal, wood, rubber, paper, card board or plastic material.
FLC 3010	-20°C to +120°C	This resin- and acid free paraffin aerosol offers outstanding creepability characteristics in gaps and fits.
FLC 9010	-35°C to +160°C	This fully synthetic, resistant to aging oil spray is ideal for the lubrication of bearings, chains, guide systems and joints in an extended temperature working area. This spray can be also used under high-temperature conditions.
MBF 370	-5°C to +120°C	Anti-corrosion spray for temporary - and long-term protection. This spray prevents the staining of alloy sheet-metal under salt water influence. Due to its extreme high-pressure abilities in conjunction with small dust take-up, we recommend the use also when lubrication must be carried out where it is engulfed by dust and dirt.

Anti-corrosion fluid with H1-approval

Designation	Viscosity	Remarks
MBF 360	42 mPas at 25°C 17 mPas at 40°C 10 mPas at 60°C	This is a thin anticorrosive agent for application with a spray gun, cloth or brush. It can be removed with hot water or dry steam, or by means of a hydrocarbon-based solvent. It provides good lubricating effects. Example of use: machines for use in the food-processing industry, corrosion, protection, during transport or intermediate storage; chain lubricant for dust-laden atmospheres.
MBF 370	250 mPas at 25°C 60 mPas at 40°C 21 mPas at 60°C	As compared to MBF 360, this product applies a thicker film and offers even enhanced corrosion protection. However, it is not designed for spray application. It provides very good lubricating effects. It cannot be used as a mineral oil additive. Examples of use: corrosion protecting of fish dressing plant or machinery (also at sea); chain lubricant in high humidity or dust-laden atmospheres.

The above information has been compiled to our best knowledge to help and advise you in selecting the right product to meet your requirements. However, considering the vast number of different applications or purposes, we cannot accept warranty

High-performance lubricating oils, high-performance lubricating greases, high-performance sprays for general industry, printing- and paper processing industry, food-processing and pharmaceutical industries



ELKALUB High-Performance Lubricants

Chemie-Technik-GmbH · Robert-Bosch-Straße 19 · D-72189 Vöhringen · Postfach 1111 · D-72187 Vöhringen

Telefon: +49 (0) 74 54-96 52-0 · Telefax: +49 (0) 74 54-96 52-35 · elkalub@chemietechnik.com · www.elkalub.de