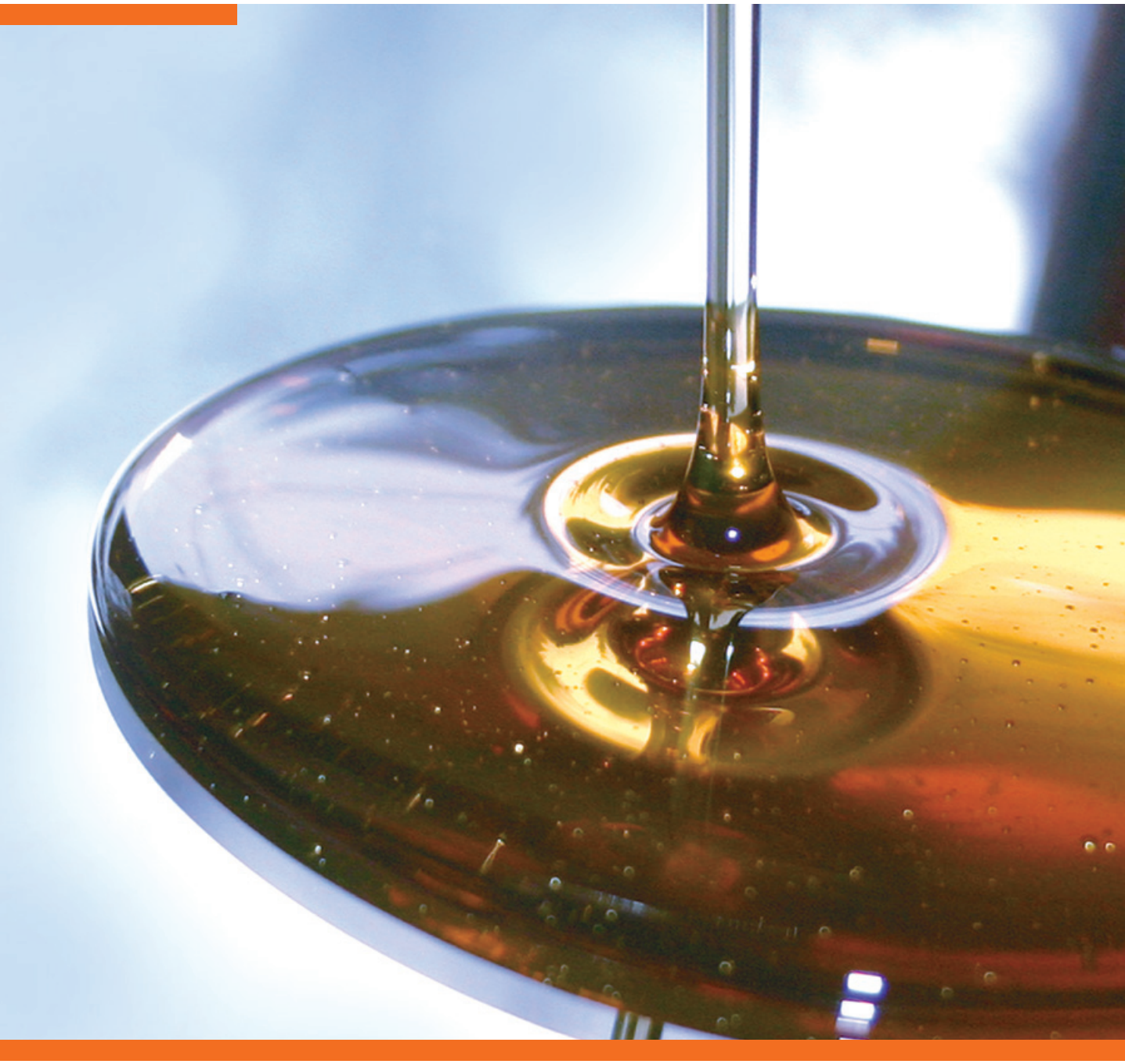
ELKALUB

High Performance Lubricants



Lubricants for Industry and Handicraft – Product Survey

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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 knowhow with long-term working experience. Contact us or our partner in your country with your individual requirements for lubrication.

Lubricating oils

Mineral oils

Designation	ISO VG	Temperature (°C)	to be used for
LFC 1005	5	-20/+80	Pn, Sp
LFC 1010	10	-20/+80	Pn, Sp
LFC 1015	15	-20/+100	Pn
LFC 1022	22	-15/+100	Pn, Hy
LFC 1032	32	-15/+120	Pn, Hy
LFC 1046	46	-15/+120	Hy, Um, Ge
LFC 1068	68	-10/+120	Hy, Um, Ge, Ke
LFC 1100	100	-10/+120	Um, Ge, Ke
LFC 1150	150	-10/+120	Ge, Ke, La
LFC 1220	220	-10/+120	Ge, Ke, La
LFC 1320	320	-10/+120	Ge, La
LFC 1460	460	-10/+120	Ge, La
LFC 1680	680	-5/+120	Ge, La
LFC 11000	1000	-5/+120	Ge, La
LFC 11500	1500	-5/+120	Ge, La

Mineral oils (adhesive version)

Designation	ISO VG	Temperature (°C)	to be used for
LFC 1046H	46	-15/+120	Ge, Ke
LFC 1068H	68	-10/+120	Ge, Ke
LFC 1100H	100	-10/+120	Ge, Ke
LFC 1150H	150	-10/+120	Ge, Ke, La
LFC 1220H	220	-10/+120	Ge, Ke, La
LFC 1320H	320	-10/+120	Ge, Ke, La
LFC 1460H	460	-10/+120	Ge, Ke, La
LFC 1680H	680	-10/+120	Ge, Ke, La
LFC 11000H	1000	-10/+120	Ge, La
LFC 11500H	1500	-10/+120	Ge, La

White oil (with **H1**-approval)

Designation	ISO VG	Temperature (°C)	to be used for
LFC 3015	15	-20/+120	Pn, Sp
LFC 3022	22	-20/+120	Pn, Hy, Ke
LFC 3032	32	-20/+120	Hy, Ke
LFC 3046	46	-20/+120	Hy, Um, Ge, Ke
LFC 3068	68	-15/+120	Hy, Um, Ge, Ke
LFC 3100	100	-15/+120	Um, Ge, Ke
LFC 3150	150	-15/+120	Ge, Ke
LFC 3220	220	-10/+120	Ge, Ke, La
LFC 3320	320	-10/+120	Ge, Ke, La
LFC 3460	460	-10/+120	Ge, La
LFC 3680	680	-10/+120	Ge, La
LFC 31150	(1150)	-10/+120	Ge, La
LFC 34068	68	-15/+120	Um, Ge, Ke
LFC 34100	100	-15/+120	Um, Ge, Ke
LFC 34150	150	-15/+120	Um, Ge, Ke
LFC 34220	220	-15/+120	Ge, Ke
LFC 34320	320	-10/+120	Ge, Ke
LFC 34460	460	-10/+120	Ge, Ke

Ester based oils

Designation	ISO VG	Temperature (°C)	to be used for
LFC 4032	32	-40/+130	Hy
LFC 4046	46	-40/+130	Hy
LFC 4068	68	-35/+130	Hy, Ke, Ko
LFC 4100	100	-35/+140	Um, Ge, Ke, Ko
LFC 4150	150	-35/+140	Um, Ge, Ke, Ko
LFC 4220	220	-35/+140	Ge, La, Ke, Ko
LFC 4320	320	-35/+140	Ge, La, Ke, Ko

Silicone oil

Designation	Visk. (40°C)	Temperature (°C)	to be used for
LFC 7038	38	-55/+140	Release agent, care product, anti-friction agent, hydraulic fluid
LFC 7075	75	-55/+150	
LFC 7260 (H1)	262	-50/+150	
LFC 7370	373	-50/+150	
LFC 7750	750	-50/+150	

Poly glycol based oils

Designation	ISO VG	Temperature (°C)	to be used for
LFC 8032	32	-20/+120	Hy
LFC 8046	46	-20/+120	Hy
LFC 8068	68	-20/+120	Hy, Um
LFC 8100	100	-20/+120	Um, Ge
LFC 8150 (H1)	150	-20/+120	Um, Ge, Ke, La
LFC 8220 (H1)	220	-20/+120	Ge, Ke, La
LFC 8320 (H1)	320	-20/+120	Ge, Ke, La
LFC 8460 (H1)	460	-20/+120	Ge, La
LFC 8680	680	-20/+120	Ge, La
LFC 81000	1000	-20/+120	Ge, La

Poly-Alpha-Olefines (with **H1**-approval)

Designation	ISO VG	Temperature (°C)	to be used for
LFC 9022	22	-45/+150	Hy
LFC 9046	46	-45/+150	Hy, Um, Ko
LFC 9068	68	-40/+150	Um, Ge, Ko
LFC 9100	100	-40/+150	Um, Ge, Ko
LFC 9150	150	-40/+150	Ge, Ke, La, Ko
LFC 9220	220	-35/+150	Ge, Ke, La, Ko
LFC 9320	320	-35/+150	Ge, Ke, La
LFC 9460	460	-30/+150	Ge, Ke, La
LFC 9680	680	-20/+150	Ge, Ke, La
LFC 91000	1000	-20/+150	Ge, Ke, La

Special oils

Designation	ISO VG	Temperature (°C)	to be used for
LFC 92100	100	-40/+150	Robot gearboxes, corrugated gearboxes
LFC 921000	1000	-30/+150	Robot gearboxes, worm drives
VP 785		-20/+120	Bearer ring oil
LA 151		-20/+120	Bearer ring oil
LFC 500			Cleaning agent

Lubricating concentrates

Designation	ISO VG	Temperature (°C)	for mineral oils of ISO VG
LA 1	68	-20/+120	46, 68, 100
LA 4	150	-20/+120	100, 150, 220
LA 7	320	-10/+120	220, 320, 460, 680
LA 8		-5/+80	(adhesive lubricant)
LA 8P		-10/+80	(adhesive lubricant)
LA 8 (H1)		-10/+80	(adhesive lubricant)

The LA-concentrates are miscible with mineral oils (excluded: hypoid oils). LA 1, LA 4 and LA 7 will be added approx 15 % to 20 %, LA 8 and LA 8P approx 5 % to 8 %. Border line lubrication characteristics will be improved considerably.

Temperature indications represent average values.
Please contact us.

Legend:
Pn = pneumatic, W = white oil, Hy = hydraulic, Um = circulation,
Ge = gearboxes, Sp = rinse oil, Ke = chains, La = bearing, Ko = compressor

Lubricating greases

Designation	NLGI	Temperature (°C)			ndmvalue (rev.)	Base oil/ thickener	Remarks
		lower	upper	shortt.			
GLL 6	3, 2	-15	+100	+130	300.000	M, Li	Adhesive, long fibred, for roller/slide bearings, shakers, open lubricating points
GLL 7	3, 2	-20	+120	+150	400.000	M, Li	Multi-purpose grease for roller and slide bearings
GLL 10	2, 1	-20	+120	+130	300.000	M, Li	MoS2-grease for roller and slide bearings under high working load
GLG 16	0 – 000	-20	+100	+120		M, Li	For gears under heavy work load; shows outstanding slide friction behaviour
GLS 72						M, aoV	Assembly- and disassembly paste for temperatures up to +1500 °C
GLS 75	2	-20	+120	+150	400.000	M, Li	Long term grease with high oxidation stability for high working pressure loads
GLS 131	2	-20	+120	+140	250.000	M, Li	High performance, for rolling bearings, plain bearings and open lubrication points
GLS 135	2, 1, 00	-20	+120	+150	500.000	M, Li	For roller- and slide bearings under high working load
GLS 163	2	-20	+130	+150	400.000	M, PH	For bearings and slide motions, under changing motions and directions
GLS 734	1–2	-40	+140			Si, Li	For sliding motion excellent for Bowden cables
GLS 764	2	-40	+180	+300	>500.000	Si, PH	High-temperature grease; contains silicone
GLS 795	3, 2	-40	+180	+200	100.000	Si, oV	High-temperature grease; when in use with hot air, it is limited to 120°C
GLS 931	1	-40	+90	+120		PAO, Li	For stepper motors; especially plastic gears; paramount friction values
GLS 932	1	-40	+130	+150	300.000	PAO, Li	Lubricating grease for aluminium/steel- and plastic/steel- pairings
GLS 933	2–1	-40	+120	+140	500.000	PAO, Li	Low-friction grease for rolling bearings, plain bearings and plastic applications
GLS 935	3–2	-40	+120	+140	1.500.000	PAO, Li-Spez.	Spindle bearing grease
GLS 962	2	-40	+170	+250	>600.000	PAO, PH	Lubrication of roller- and slide bearings in high-temperature areas
GLS 965	3, 000	-40	+170	+250	>600.000	PAO, PH	High-temperature grease for high loads in roller- and slide bearings
GLS 966	2	-40	+160	+230	>600.000	PAO, PH	High-temperature grease for medium- till high speed bearings
GLS 991		-40	+140	+180		PAO, oV	For pneumatic, bearings, gears, slide motions, bars and fittings
GLS 993	1	-40	+150	+200	<100.000	PAO, oV	For pneumatic, bearings, gears, slide motions, bars and fittings
VP 900	0	-30	+150			M, Li/Ca	Adhesive grease for open gears, cam and cam disks
VP 905	1–0	-30	+120	+140		PAO, Li	Control gearboxes; plastic/steel pairing; high load-bearing capacity
VP 907	2	-30	+120		1.600.000	M, Li-Spez.	Spindle bearing grease
VP 911	2	-40	+230		300.000	PFE, PAO, soV	High-temperature grease for waffle ovens, fluted roller bearings, oven hinges

Lubricating grease for the food processing industries

Designation	NLGI	Temperature (°C)			ndmvalue (rev.)	Base oil/ thickener	Remarks
		lower	upper	shortt.			
GLS 361	1	-25	+120	+130		W, PH	**H1**-grease to stop tribocorrosion; for open gears, as assembly grease
GLS 363	3	-25	+120	+140	200.000	W, aoV	Highly adhesive H1 grease for rolling bearings, plain bearings and open lubrication points
GLS 364	2	-10	+120	+150	>600.000	W, PH	**H1**-grease for cutter shaft bearings, slicers, sausage fillers, sterilizers
GLS 367	2, 1, 00, 000	-10	+130	+180	100.000	W, aoV	**H1**-grease for roller- and slide bearings, guides even exposed to water
GLS 380	2, 1	-10	+120	+180	200.000	W, Al	**H1**-grease, with preference for slide bearings with ferrousnon ferrous pairings
GLS 381	00, 000	-20	+120	+150	200.000	W, Al	**H1**-semi liquid grease for gears
GLS 382	2	-20	+120		200.000	W, Al	**H1**-grease for high-load rolling bearings and plain bearings
GLS 388	2, 1	-10	+100	+130	200.000	W, Al	**H1**-grease, very adhesive, for slide bearings, bars, open cog wheels
GLS 595	3, 2, 00	-40	+250	+300	100.000	PFE, oV	Long-life grease for high-temperature applications, can only be mixed with grease of same type. Pretreatment with LFC 500 is recommended
GLS 794	3, 2, 1, 0	-40	+180	+200	100.000	Si, oV	**H1**-silicone grease for slide motions, valves, guides, O-ringassembly, etc.
GLS 867						PG, aoV	**H1**-assembly grease for EPDM-gaskets, can be well rinsed off
GLS 964	2	-20	+130	+150	500.000	PAO, PH	synthetic **H1**-grease for roller- and slide bearings
GLS 967	1–2	-15	+130	+150	100.000	PAO, aoV	**H1**-grease with extended resistance to water, acids and alkalis
GLS 980	2	-40	+140		200.000	PAO, Al	**H1**-grease for high loads and temperatures
GLS 993 H1	1	-40	+150	+200	<100.000	PAO, oV	**H1**-grease for pneumatic, bearings, gears, slide motions, bars, etc.
VP 873	2	-20	+140		200.000	W, synt. Öl, oV	**H1**-grease for highly loaded roller and slide bearings
VP 874	2	-20	+120	+150	>600.000	PAO, oV	**H1**-grease for linear contacts, recommended by Bosch Rexroth
VP 886	2	-30	+120	+150	300.000	PG, aoV	**H1**-grease with good sliding friction behaviour, UV resistent
VP 889	2–3	-15	+130	+150	100.000	synt. Öl, E, aoV	**H1**-grease for sterlizor chains does not leave any stains on the tins
VP 890	< 000	-35	+140			PAO, oV	**H1**-special-semi-liquid grease with high corrosion protection
VP 899	1	-40	+110		2.300.000	PAO, oV	**H1**-grease for spindle bearings and miniature ball bearings

Sprays

Designation	General application	Properties
FLC 8 **FLC 8 H1**	chains under high load, cams and open cog wheels	Very adhesive and no spin-off until +80 °C; highly loadable, good creeping and anti-corrosion properties; resistant to water; for chains under load and open lubricating points like cog wheels, cams, curve discs and barrel rings (-20 °C to +120 °C)
FLC 804	hinges, joints, open gears	non-dripping adhesive spray, based on the spray FLC 8 H1 (-20 °C to +100 °C)
FLC 95	high temperaturechains and slide rails	Grease spray with good creeping abilities, adhesion and EP properties for lubrication of chains, metal surfaces in high-temperature and hot air areas; particularly to recommend for shrinkage- and dryer tunnels (-30 °C to +150 °C, short term +220 °C)
FLC 367 (H1)	for food and beverage firms, as well as pharmacy	Grease spray for lubrication of chains and slide ways exposed to very aggressive influences, extremely resistant to water, acids and alkalis (-20 °C bis +130 °C, short term +180 °C, pH-frame 2–11 at 50 °C)
FLC 400	hot embossing press devices, chains under high temperature	Metal surfaces must be absolutely clean before application! (up to +250 °C, short term +300 °C)
FLC 675 R+S (H1)	chain cleaning agent	Odourless, anti-corrosive cleaning agent for treatment of grease and oil mudded machinery components; a very thin interim lubrication film prevents the dry running during the cleaning process
FLC 900 Clean (H1)	cleaning agent	Odourless cleaning agent for lubricant residues, resin and paint residues; leaves bare metal surfaces without residues of the cleaning agent
FLC 700	silicone based slide fluid for paper, wood, rubber, fabrics	Relatively fast drying, a non-filthy sliding layer with good anti-corrosion capabilities will show up and have long standing effects (after vaporation max. +170 °C)
FLC 710	similar to FLC 700	Properties similar to FLC 700; very short period of vaporation; much thinner consistency than FLC 700; can be used during regular production run
FLC 745 (H1)	silicone based slide fluid mainly for plastics	Physiologically harmless slide film remains, not glueing, odourless with good corrosion inhibitors (after vaporation max. +170 °C)
FLC 1010	gripper seats (printing industry), spindles, joints, chains	Extremely good creeping lubricant for fits to cope with utmost high work loadability; the creeping performance is rather limited on metal surfaces; free of resins and acids; does not bind any dirt particles or dust (-20 °C to +120 °C)
FLC 1012	similar to FLC 1010	Similar to FLC 1010
FLC 1014	Oil spray with PTFE	Accepts high loads; best anti-corrosion- and sliding properties (-20 °C to +120 °C)
FLC 1040	rust solvent	Very effective rust solvent, with dewatering properties for rusted screws, bolts, guides, chains, etc.
FLC 1070	for highly loaded drive-, lift and transport chains; bearings	Very high AW- and anti-corrosion properties; excellent creeping abilities, free of resin and acids (-10 °C to +120 °C)
FLC 3010 (H1)	food making- and beverage industries; pharmacy	Oil spray with paramount creeping, enormous pressure resistance and anti-corrosive characteristics; resin and acid free, for transmission- and transport chains, hinges, spindles and guides (-20 °C to +120 °C)
FLC 4010 (H1)	chains, rollers and joints exposed to high-temperature	Ester based oil spray offering good creeping and outstanding AW anti wear and anti-corrosion protection (-35 °C to +180 °C, short term +200 °C)
FLC 8010	UV-installations	Well suited for UV-installations; high loadability of remaining film is ensured (-30 °C to +130 °C)
FLC 9010 (H1)	Synthetic oil-spray for universal use	Oil spray based on PAO with good creeping ability; very suitable for use in the high temperature range as well as for higher loads, application for roller and sliding motions (-35 °C up to +160 °C)
FLC 9020	Precision mechanic spray	non-resinous and acid-free synthetic oil for lock cylinders and locking systems, tools, apparatus and measuring devices (-45 °C to +150 °C)
MBF 370 (H1)	food making and beverage industries	High effective, anti-corrosion- and grease agent under aggressive working conditions; contains PTFE; anti-static to dust and dirt, suitable for chains, cams and guides (-5 °C to +120 °C, preferably till +60 °C)

Remark: Most a.m. sprays can be also delivered in a liquid performance.

Anti-corrosion and lubricant fluids

Designation	General application	Properties
MBF 360 (H1)	anti-corrosion and lubricant fluid	Viscosity at 40 °C 17 mPas, thin, but highly effective anti-corrosion and lubricating agent for storage of metal parts and sea transport of machines; due to low dust take-up MBF 360 can be used as lubricant in sensitive areas; application by means of splash treatment (diving), spraying, with a brush or a rag
MBF 370 (H1)	anti-corrosion and lubricant fluid	Viscosity at 40 °C 60 mPas, intermediate and long time anti-corrosion protection with extreme high-pressure characteristics; prevents blooming of high alloy exposed to sea water; well suited for greasing of chains; to avoid corrosion at simultaneous improvement of working performance. MBF 370 can be added to mineral oils to upgrade working mode of gears. This fluid can not be sprayed.

Legende:
M = Mineral oil, W = white oil, E = Ester, PAO = Poly-Alpha-Olefins, Si = Silicone, PFE = Perfluorether, PG = Polyglycol, PHE = Phosphate ester, Al = Aluminium, Li = Lithium, Na = Sodium, PH = Polyurea, aoV = anorganic thickener, oV = organic thickener

Above mentioned indications are given as per our best knowledge. This should serve for evaluation and advise only.
A commitment and warranty can't be taken over due to manifold applications and use.

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

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