LUBRICIT

lexolube

synthetic esters

ZSCHIMMER & SCHWARZ

LUBRICANTS

- High Temperature
- Low Temperature
- Food Contact
- Metalworking
- Gears and Chains
- Greases
- Compressors
- Engines
- Textile
- Ceramic and Inks

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Zschimmer & Schwarz Lubricants offers a broad range of esters designed for use in Lubricants, Metalworking Fluids and Industrial Fluids. Esters can be used in many industrial applications to replace mineral or natural oils whenever there is a need for:

- Metal adhesion
- Higher lubricity
- Lower toxicity and impact on the environment
- Improved thermal stability
- Low volatility
- Low Pour Point

LUBRICIT® and LEXOLUBE® esters are manufactured starting from selected raw materials of oleochemical and synthetic origin and using industry-leading standards to guarantee high quality, narrow specifications, consistent characteristics and absence of residues and impurities. The product range includes:

Fatty acids esters

Base esters and additives for the formulation of low viscosity lubricants or neat and emulsifiable metalworking fluids. They are manufactured from naturally occurring fatty acids that are commercially derived from animal or vegetable fats and oils. Based on renewable resources and also biodegradable, these esters have an outstanding health and safety profile. Due to the separation and purification steps undergone by the components, there is a distinct performance advantage over natural triglyceride oils: synthetic fatty acid esters have superior oxidative, hydrolytic and bio-stability and can be designed to meet the viscosity, volatility and other characteristics required for the application

Diesters

Esters of di-carboxylic acids which provide improved stability both in lubricants and in metalworking fluids. Diesters are historically made from synthetic diacids and synthetic alcohols. As such, they are not based on renewable resources, but can still have an excellent health, safety and toxicity profile if aromatic diacids (phthalates) are avoided. In recent years, bio-based diester feedstocks have become available and it is likely that these will become more affordable in coming years.

Polyol esters

have three or more ester groups so they give higher viscosity and lower volatility than diesters. The polyol center is extremely stable at high temperature so polyol esters are preferred in hot operations where they give long life and resist varnish and deposit formation. The acid component can be renewable or fully synthetic. Synthetic feedstocks optimize thermal stability and renewable acids are required if the oil must be readily biodegradable. Polyol esters chemistry allows to formulate lubricant basestocks to meet virtullay any Lubrication challenge; the Z&S range includes products designed for specific applications:

- High Temperature
- Incidental Food Contact
- Biodegradability and Renewability

Complex polyol esters

are polymeric hybrids of polyol esters and diacids. By combining the two technologies, it is possible to achieve excellent thermal stability at moderate to very high viscosity. The polymeric character and multiple ester groups lead to a very high viscosity index, outstanding tack and exceptional boundary lubrication. Complex polyol esters can be manufactured with a large percentage of renewable carbons and many types are readily biodegradable.

	PRODUCT	High Temperature	Low Temperature	Food Grade	Metalworking	Gears and Chains	Greases	Compressors	Engines	Textile	Ceramic and Inks	Biodegradable	Viscosity @40°C	Viscosity @100°C	Viscosity Index	Flash Point	Pour Point
FATTY ACIDS ESTERS	LUBRICIT iC9-9 (E)		■		■				■			■	4,8			>140	<-57
	LUEBRICIT 2-EHL (E)				■						■	■	5	1,9		166	-36
	LUBRICIT 2-EHC (E)				■						■	■	6	2		>180	-15
	LUBRICIT 2-EHO (E)		■		■		■			■	■	■	8	2,7		213	<-30
	LUBRICIT 2-EHP (E)				■		■			■	■	■	8,5	2,7		215	0
	LUBRICIT 2-EHS (E)				■					■	■	■	9,5	3		218	6
	LEXOLUBE HS-C (E)	■			■	■	■					■	9	3	160	195	-3
	LEXOLUBE B-109 (E)	■			■					■	■	■	17	4	160	204	6
DIESTERS	LUBRICIT DOA (E)		■		■		■	■		■	■	■	8	2,3	110	200	<-50
	LUBRICIT DIDA (E)		■		■		■	■		■	■	■	14	3,5	145	220	-60
	LUBRICIT DTDA (E)		■		■	■	■	■	■	■		■	22	5	150	245	-60
	LUBRICIT 2-EHD/1 (E)				■				■			■	95	13	140	298	<-40
POLYOL ESTERS	LUBRICIT TMP C810 (E)	■	■	■		■	■		■		■	■	19	4	140	250	-50
	LUBRICIT TMP C9		■	■		■	■			■	■	■	20	4,5	142	270	-63
	LUBRICIT PE 4810												32	6	140	300	-10
	LUBRICIT TMP THCFA				■					■		■	35	10	160	280	0
	LEXOLUBE POE-68HT	■	■			■	■	■					68	10	130	285	-45
	LEXOLUBE PQ-68	■	■			■	■	■					68	9	105	250	-30
	LEXOLUBE POE-100HT	■				■	■						100	12	110	295	-35
	LUBRICIT PEiC18	■				■	■	■	■			■	145	18	140	320	-33
	LEXOLUBE 4PM-114	■				■	■						170	15	80	275	-40
	LEXOLUBE POE-220HT	■			■	■	■					■	220	19	95	300	-25
	LEXOLUBE POE-350HT	■					■					■	350	24	90	300	-20
COMPLEX ESTERS	LEXOLUBE KL-435	■				■	■					■	435	38	125	320	-25
	LEXOLUBE CG-3000				■	■	■	■				■	3000	290	230	300	-15
	LEXOLUBE CQ-3000	■			■	■	■	■					3000	205	180	300	-15
FOOD GRADE	LEXOLUBE FG-8 HX1 (E)		■	■	■		■	■		■	■	■	8	2,3	110	200	<-50
	LEXOLUBE FG-12 HX1 (E)	■	■	■	■				■			■	12	3	140	210	<-57
	LEXOLUBE FG-15 HX1 (E)	■		■	■		■			■	■	■	15	4	135	235	-15
	LEXOLUBE FG-22 HX1		■	■				■				■	22	5	140	250	-50
	LEXOLUBE FG-46 HX1		■	■				■				■	46	8	135	270	-45
	LEXOLUBE FG-68 HX1	■		■		■	■	■					68	10	125	290	-45
	LEXOLUBE FG-100 HX1	■		■		■	■	■					100	12	120	300	-35
	LEXOLUBE FG-220 HX1	■		■			■	■					220	19	95	300	-25
	LEXOLUBE FG-350 HX1	■		■	■	■	■	■				■	350	24	85	300	-20
	LEXOLUBE 3N-310	■	■	■								■	19	4	140	270	-45
	LUBRICIT 5399	■	■	■			■	■				■	21	5	140	285	-30
	LUBRICIT TMP C18-VEG		■	■	■		■					■	46	9	190	325	-45
	LUBRICIT 9537	■		■			■	■					300	22	90	300	-5

Zschimmer & Schwarz Italiana S.p.A.
Via Angelo Ariotto 1/C
13038 TRICERRO (VC) / ITALY
T. +39 0161 80 81 11- F. +39 0161 80 10 02
Info.zsi@zschimmer-schwarz.com
zschimmer-schwarz.com

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