



TECHNICAL BULLETIN

BIO LUBRICANTS

BIO lubricants are a family of biodegradable and non-toxic fluids. They were especially formulated to offer optimal performance for any lubricating application, i.e., hydraulic systems, industrial gears, slide ways, pneumatic and percussion tools. These lubricants are manufactured with biodegradable vegetable oils and provide optimal protection for forestry equipments, sawmills, slide ways, pneumatic tools and jack drills. The additive package used is ashless and approved for incidental contact with food (H-1 and H-2). These lubricants do not affect yellow metals; moreover, they offer superb performance under the most adverse operating conditions. All **BIO** lubricants from **S.T.L. LUBRIFIANTS INC.** offer the following characteristics: 1) superior load carrying capacity and resistance to abrasion 2) superior protection against rust and corrosion 3) outstanding anti-wear properties and 4) higher resistance to oxidation than most conventional biodegradable lubricants. In addition, these lubricants form a highly adherent and tenacious film which increases metal surface protection while reducing stray-mist.

CHARACTERISTICS

All **BIO** fluids possess the following characteristics:

- Virtually no toxicity.
- Readily biodegradable,
- Exceptional anticorrosion, antirust, extreme-pressure and anti-wear properties.
- Excellent oxidation stability and high adherence to surfaces.
- Good low temperature properties.
- Excellent anti-foam properties.

ENVIROSYSTM BIO GREASE

ENVIROSYSTM BIO GREASE is a high temperature, multi-purpose grease with a low coefficient of friction. **ENVIROSYSTM BIO GREASE** is ideal for applications where there is constant environmental exposure due to pass through lubrication, unsealed bearings or similar open design. **ENVIROSYSTM BIO GREASE** is an industrial grease that is not just rapidly biodegradable and operator safe but environmentally safe. **ENVIROSYSTM BIO GREASE** is made from a vegetable oil carrier. The risk of both water and soil contaminants is reduced and risk of long and short term liability is minimized. Use **ENVIROSYSTM BIO GREASE** where grease is entering the environment.

ADVANTAGES

- **ENVIROSYS BIO GREASE** contains no petroleum oil carriers, petroleum based additive packages or metal additives such as lead or zinc.
- **ENVIROSYS BIO GREASE CAN** be used in centralized dispensing system applications where the potential for environmental contamination is a concern.
- **ENVIROSYS BIO GREASE** continues to lubricate in the presence of water.
- **ENVIROSYS BIO GREASE** has an exceptional low coefficient of friction
- **ENVIROSYS BIO GREASE** has a very high dropping point >343°C (>644°F).

TYPICAL PROPERTIES OF ENVIROSYS™ BIO GREASE

PROPERTIES	ASTM TEST	#00	#0	#1
Product code	-	Envirosys Bio-WX	Envirosys Bio-W	Envirosys Bio-S
Thickener type	-	Li-OH Stearate	Li-OH Stearate	Li-OH Stearate
Color Texture	-	Amber Smooth	Amber Smooth	Amber Smooth
Density in kg/dm ³ at 15°C	D1298	0.98	0.98	0.98
Viscosity				
@ 40° C, cSt	D445	100	27,5	64,6
@ 100° C, cSt	D445	21	6,2	14,03
Viscosity Index	D2270	237	186	227
Worked penetration at 25°C, 60 strokes (mm)	D217	400-430	355-385	310-340
Timken load OK, in kg (min)	D2509	30	32	38
Drop point in °C	D2265	> 180	> 180	> 180
Copper strip corrosion test,	D4048	1A	1A	1A
Service temperature in °C	-	-35 to 180	-30 to 180	-20 to 200

Remark: Although the preceding values are typical properties, they do not represent guaranteed characteristics.