HY-BIO GOLD
Lubricant for Hydraulic Systems

Description
HY-BIO GOLD is a **bio-based, ecosynthetic, and biodegradable** lubricant for hydraulic systems. It is the best-performing lubricant on the market. Its unique formula, exclusive to PROLAB, provides it with exceptional properties which outclass all mineral and synthetic biodegradable hydraulic lubricants as well as many of the standard mineral oil hydraulic lubricants.

Characteristics and Benefits
- Specifically designed to meet the OCDE 301B, OCDE 201-202 et 203 requirements.
- Composed of a minimum of 80% renewable material
- Unique blend of 100% synthetic high-performance oil and superior quality antioxidant.
- Provides superior thermal stability, excellent hydrolytic resistance (very little breakdown when exposed to water), as well as exceptional resistance to load, oxidation (between 5000 and more than 10000 hours depending on the grades) and corrosion combined with excellent anti-foaming properties.
- Better lubrication and superior performance in all temperatures.
- HY-BIO GOLD is environmentally friendly: biodegradable and ecological, it contains no heavy metals, organochlorines or nitrous compounds..
- HY-BIO GOLD is safe to use, not subject to SIMDUT regulations, and is available in five ISO grades: #15, # 22, # 32, #46 and # 68.
- HY-BIO GOLD is approved by SSL (Signature St-Laurent). It is safe to use in all type of machineries working near water catchments areas.

Types of application
HY-BIO GOLD is essential in all hydraulic systems subject to environmental risks of accidental spills or leaks such as near bodies of water, or in wharf facilities, maritime equipment, forestry, agriculture, etc.

Classification
According to the ISO 11158 classification for biodegradable hydraulic oils, HY-BIO GOLD is considered as HEES (synthetic ester based oil). In addition, the HY-BIO GOLD meets and / or exceeds the following standards:
DIN 51524 : HL, HV, HLP, HLPD, HVLP. ISO 6743-4 L-HV, L-HS, L-HL. Caterpillar BF-2.

Compatibilities
HY-BIO GOLD are compatible with almost all of elastomer joints of nitrile types, Hythane and polyesters.

Directions of use
Follow the manufacturer's instructions for the lubrication of the specific piece of equipment.

Notes
For better results, it is highly recommended to use PROLAB's DE-25 prior to using a new lubricant. The use of environmentally friendly products minimizes the negative consequences following an accident that could otherwise prove to be very costly and damage your corporate image.

Warning
Verify compatibility of elastomer seals.HY-BIO should not be used as transmission fluid.

Product Codes
#465: HY-BIO GOLD 22, #466: HY-BIO GOLD 32, #467: HY-BIO GOLD 46, #468: HY-BIO GOLD 68

Available Sizes
4 L, 18.9 L, 55 L, 205 L

Prolab Technolub Inc. 4531 rue industrielle Thetford Mines, (Québec) Canada G6H 2J1
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Property	Test method	Requirement	
Health and environmental risk No environmental or health risk phrases		No R phrases on fluid	Pass
Ecotoxicity Fish Algae Daphnia	 OECD 203 OECD 201 OECD 202	 ECr50 > 100mg/l ECr50 > 100mg/l ECr50 > 100mg/l	 Pass Pass Pass
Biodegradability Bioaccumulation (for non-degradable substances)	OECD 301 B	Biodegradable > 80%	Pass Pass
Marine Protection **Other international criteria** No priority substances present as listed in 2006/60/EC Does not appear on the OSPAR list. No organic halogens, Nitrite compounds, metals or metallic compounds, Na,K,Ca & Mg allowed.			 Pass Pass Pass

Characteristics	ASTM Test	Typical Values				
ISO Grade:		15	22	32	46	68
Flash point (°C):	D92	210	232	230	260	250
Pour point (°C):	D97	<-60	<-57	-47	<-45	<-40
Specific gravity at 15°C (g/cm^3):	D4052	0,9194	0,989	0,9124	0,9181	0,9578
Viscosity at -20°C (cSt): Viscosity at -10°C (cSt): Viscosity at 0°C (cSt): Viscosity at 20°C (cSt): Viscosity at 40°C (cSt): Viscosity at 100°C (cSt):	D445 D445 D445 D445 D445 D445	 14 3,5	 22 4,7	 30,2 5,6	1 661,81 703,23 290,79 121,12 45,08 7,7	 67,3 9,4
Viscosity index:	D2270	144	134	126	146	118
Oxidation stability (h):	D943	n.d.	>10 000	8 500	>10 000	>5 000
Dielectric breakdown	D877	40 kv	29,8 kv	31 kv	39 kv	n.d.
Biodegradability - CEC L-33-T-82 (21 days) - Predictive (21 days)	D7373	 n.d. n.d.	 >80% 68%	 85% n.d.	 n.d. 67%	 >90% n.d.

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