

## LSA BIOFLUID HYDRAULIC 68

### *Readily Biodegradable Hydraulic Fluid*

LSA BIOFLUID HYDRAULIC 68 is an anti-wear readily biodegradable hydraulic fluid formulated from high lubricity base oils with nontoxic anti-wear and anti-corrosion additives.

Reduces operating temperatures, friction and wear in mobile and industrial hydraulic systems.

Excellent thermal and oxidation stability with minimal viscosity change over a broad range of operating temperatures.

LSA BIOFLUID HYDRAULIC 68 is suitable for use in environmentally sensitive applications and where ISO grades 68 and 100 are required.

At > 95% biodegradable LSA BIOFLUID HYDRAULIC 68 exceeds the requirements of highly regarded German Blue Angel Scheme requiring >80% biodegradable. Meets CEC-L-33-A-94 test standard.

**LSA BIOFLUID HYDRAULIC 68** meets the following:-

- Vickers Valve Wear Test
- CAT BF-1
- FZG Wear Test

### FEATURES

- Readily Bio-degradable
- Anti-wear and extreme pressure protection
- Rust and corrosion protection
- Multigrade performance covering grades 46, 68 and 100.
- High viscosity index
- High Flash Point
- Ultra-low toxicity
- Mixing with Mineral Oils

LSA Biofluid Hydraulic 68 is compatible with petroleum hydraulic fluids, however, mixing can lead to excess foaming and air release. Complete flushing at conversion is recommended.

The ISO standard 15380 requires Bio-oil to be 98% of the hydraulic fluid.

### TYPICAL CHARACTERISTICS

Properties		Value
ISO Grade		68
Biodegradability %	CEC-L-33-A-94	>95
Specific Gravity @ 15 °C		0.913
Viscosity @ 40°C cSt	ASTM D445	68
Viscosity @ 100°C cSt	ASTM D445	13.2
Viscosity Index	ASTM D2270	>200
Flash Point °C	ASTM D97	260
Pour Point °C	ASTM D92	-21
Copper Corrosion	ASTM D4048	1A
Rust Test A & B	ASTM D665	Pass
Suggested Operating Range		-5 °C - 80 °C

**Packs Sizes**      **1040 litre IBC**  
**205 litre Steel Drum**  
**20 litre Plastic Drum**

## LSA Biofluid Hydraulic 68 Material Compatibility Guide

The following guide to material compatibility is based on the published Parker O-Ring Handbook and DMR Seal Compatibility Guide studies, involving canola oil (aka rapeseed) lubricant formulations.

Material Code	Compound	Compatibility
NBR	Nitrile*, Buna N	ACCEPTABLE
HNBR	Hydrogenated Nitrile	ACCEPTABLE
EPDM, EPR	Ethylene, Propylene	ACCEPTABLE
FKM	Fluorocarbon, Viton	ACCEPTABLE
FKM	Hiflour	ACCEPTABLE
FFKM	Perfluoroelastomer	ACCEPTABLE
FEPM	Propylene	UNKNOWN
CR	Neoprene/Chloroprene	ACCEPTABLE
SBR	Styrene-Butadiene	UNSATISFACTORY
ACM	Polyacrylate	ACCEPTABLE
AU, EU	Polyurethane	ACCEPTABLE
BR	Butyl	ACCEPTABLE
BR	Butadiene	UNSATISFACTORY
IR	Isoprene	UNSATISFACTORY
NP	Natural Rubber	UNSATISFACTORY
CSM	Hypalon	ACCEPTABLE
FVMG	Fluorosilicone	ACCEPTABLE
MQ, VMQ, PVMQ	Silicone	UNSATISFACTORY
TFE	Teflon	ACCEPTABLE
	Nylon	ACCEPTABLE

\*medium and high nitrile content

**CAUTION:** This chart is meant as a general guideline for material selection and should be used with caution. When in doubt a compatibility test should be performed.