Product Data Sheet

Lubricant Specialists Australia

LSA BIOFLUID GEAR EP

Readily Biodegradable Extreme Pressure Gear Lubricant

LSA BIOFLUID GEAR EP oils are readily biodegradable extreme pressure gear lubricants designed to replace mineral industrial gear oils and mobile plant gear oils within AGMA EP ratings.

Expect lower operating temperatures compared to normal mineral oils.

Excellent thermal and oxidation stability will provide longer service life.

At > 90% biodegradable LSA BIOFLUID GEAR EP exceeds the requirements of highly regarded German Blue Angel Scheme requiring > 80% biodegradable. Meets CEC-L-33-A-94 test standard.

This product is compatible with mineral oils, however, we recommend flushing with LSA BIOFLUID GEAR EP oils with the first oil change.

Available in ISO grades 220 & 320

FEATURES

- Readily Bio-degradable > 90%
- Superior oxidation stability
- High viscosity index
- Industrial AGMA EP lubrication
- Rust and corrosion protection
- Ultra-low toxicity
- Compatible with Mineral Oils

LSA Biofluid Gear EP is compatible with petroleum industrial gear oils. Natural cleaning properties ensure varnish and residue do not build up. However, existing residue from petroleum oils may be dissolved with its first use and halving the oil change interval is recommended for the first use only.

TYPICAL CHARACTERISTICS

Properties		EP 220	EP 320
ISO Grade		220	320
Recommended for AGMA No.		5EP	6EP
Viscosity @ 40ºC cSt	ASTM D445	220	320
Viscosity Index	ASTM D2270	196	198
Biodegradability %	CEC-L-33-A-94	>90	>90
Flash Point ºC	ASTM D92	>260	>260
Pour Point ºC	ASTM D97	-12	-12
FZG Load Stage	DIN 51354	12	12
Timken OK Load		>28 kg	>28 kg
Copper Corrosion	ASTM D4048	1A	1A
Rust Test A & B	ASTM D665	Pass	Pass
Suggested Operating Range		0ºC – 80 ºC	0ºC – 80 ºC
Aquatic Toxicity, Fathead Minnow, LC50, 48hrs, ppm	EPA-821-R-02-012	>5000	>5000

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

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LSA Biofluid Gear EP 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.

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