



BIOMULTIS XHV 2

DESCRIPTION

Synthetic heavy-duty biosourced and biodegradable Lithium/Calcium grease with outstanding low temperature resistance, and Ecolabel certification.



SPECIFICATIONS

Environmentally Acceptable Lubricant (EAL) for the 2013 Vessel General Permit (VGP)

TLL ECOLABEL certification

- ISO 6743-9: L-XEDHB 2
- DIN 51502: KP2N-45

APPLICATIONS

BIOMULTIS XHV 2 is a specialized grease for extremely loaded heavy-duty application where there is a need of biodegradable product usage.

It is recommended for construction, mining, off-road equipment and agriculture.

BIOMULTIS XHV 2 is fully compatible with **BIOMULTIS EP** range.

ADVANTAGES

BIOMULTIS XHV 2 is a lithium-based grease formulated with a **fully synthetic ester base oil** which allows a significant extension of greasing intervals and outstanding mobility at low temperature.

BIOMULTIS XHV 2 exceptional adhesiveness ensures the maximum protection against external contamination like water and corrosive environment.

eXtra High Viscosity (XHV) base oil and **Extreme Pressure** additives of **BIOMULTIS XHV 2** guarantee the best protection of the equipment in case of heavy loads and shocks.

BIOMULTIS XHV 2 has the highest Ecolabel certification : TLL (Total Loss Lubrication).

BIOMULTIS XHV 2 has a patent for its specific additivation, providing outstanding performance.

This lubricant used as recommended and for the application for which it has been designed does not present any particular risk.

A material safety data sheet conforming to the regulations in use in the E.C. is obtainable via your commercial adviser www.quick-fds.com.

TotalEnergies Lubricants

SA 552 006 454 RCS Nanterre - France

RECOMMENDATIONS

BIOMULTIS XHV 2 is certified **ECOLABEL TLL - Total Loss Lubrication**.

By design **BIOMULTIS XHV 2** does not contain harmful product to human health and to the environment. This Biodegradable grease is the perfect product for a use in sensible environment.

TYPICAL CHARACTERISTICS

PROPERTIES	METHODS	UNITS	BIOMULTIS XHV 2
Thickener		-	Lithium / Calcium
Base oil type		-	Synthetic Esters
NLGI Grade	ASTM D 217/DIN 51 818	-	2
Color	Visual	-	Brown
Operating temperature range	-	°C	-45 à 140
Dropping point	NFT 60-127	°C	>190
Anti-rust performance SKF-EMCOR, distilled water	ISO 11007	rating	0 – 0
Copper corrosion 24h/100 °C	ASTM D130	rating	1b max
4 ball weld load	ASTM D 2596	Kgf	620
4 ball wear scar	ASTM D 2266	mm	0,6
Kinematic viscosity of the base oil at 40°C	ASTM D 445	mm ² /s (cSt)	680
Flow pressure at -45°C	DIN 51 805	mbar	<1400
Starting torque at -20°C	ASTM D 1478	mN.m	136
Water spray-off	ASTM D 4049	% loss	11
Water washout at 79°C	ASTM D 1264	% loss	4,4
Biodegradability	CEC-L-33 T82	%	> 60

Above characteristics are mean values given as an information.

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BIOMULTIS XHV 2 Certification – VGP Compliance

Date of last Rev. October.2023

Revision number: 1

TotalEnergies Lubrificants certifies that BIOMULTIS XHV 2 is an Environmentally Acceptable Lubricant (EAL) according to the definitions and requirements of the U.S. Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP).

VGP Section 2.2.9 states that all vessels trading on US ports must use an EAL in all oil and greases to sea interfaces, unless technically infeasible. “Environmentally acceptable lubricants” means lubricants that are “biodegradable” and “minimally-toxic” and are “not bio-accumulative” as defined in Appendix A of the permit.

BIODEGADABILITY

The VGP definitions of “Biodegradable” include grease formulations that contain at least 75% by weight of a constituent substance or constituent substances that give a minimum test result of 60% according to OECD 301B. The 25% of the formulation that need not meet the above biodegradability requirements may be inherently biodegradable or nonbiodegradable (but not bioaccumulative). Acceptable test methods to demonstrate inherent biodegradability include >20% according to OECD 301B. In order to comply with the 2013 VGP biodegradability / bioaccumulation requirement, it is necessary to consider the constituent substances.

NON BIOACCUMULATION

Only stated substances present above 0.10% shall be assessed. As stated above, the assessment of bioaccumulation only apply to non-biodegradable constituent substances.

MINIMALLY TOXIC

The VGP definitions for “Minimally-Toxic” greases include achieving acute toxicity results of at least 1000 mg/L according to OECD 201, 202, and 203 (Algae, Daphnia and Fish).

Following testing by our supplier and according to the Lubricant Substance Classification List of the European Commission, **BIOMULTIS XHV 2** and its components meet all the above requirements.

Maxime ORENGA-CASTENETTO
Grease Product Manager

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