

## PRODUCT NAME

**BioGrease HD – Biodegradable Lithium Grease**

## MANUFACTURER

BioBlend Renewable Resources, LLC.  
1500 Jarvis Ave.  
Elk Grove Village IL, 60007  
888.BIO.BLND (888.246.2563)

## DESCRIPTION

BioGrease HD is a readily biodegradable, minimally toxic, Lithium 12- OH Stearate grease formulated to provide high film strength, withstand high operating temperatures, and maintain excellent stability. BioGrease HD features a high viscosity base oil for high load carrying capabilities. BioGrease HD also has excellent anti-wear and water washout properties. It is designed for heavy-duty use in a variety of industrial, mobile, and marine applications.

## FEATURES AND BENEFITS

- Excellent anti-wear protection
- Powerful protection against water washout
- Readily Biodegradable
- Minimally Toxic
- Available in NLGI 1 & 2
- Lithium 12-OH Stearate grease providing superior lubricity
- Withstands high temperatures
- USDA BioPreferred Program – 90% Biobased Content
- Classified as Environmentally Acceptable Lubricants (EAL's) per EPA requirements

## PACKAGING

- 35 Lb Pails
- 120 Lb Kegs
- 400 Lb Drums
- 10 Packs of 14 oz cartridges

## SUITABLE USES

Industrial, hydroelectric dams, refuse, mining, dredging/marine, agriculture, construction, oil & gas, and plant operations equipment where high operating temperatures, heavy loads and water washout are concerns.

## LIMITATIONS

Not intended for use in high speed (>2,000 rpm) wheel bearings.

## STORAGE AND SHELF LIFE

**Storage** – Keep in a cool, dry and well-ventilated place. Store in a properly labelled, original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. To help maintain product quality, do not store in heat or direct sunlight.

**Shelf Life** - Product shelf life is 24 months from date of packaging. In some cases product can last longer, please contact your BioBlend representative for proper testing and confirmation instructions.

## CAUTIONS

Ensure adequate ventilation. Do not breathe vapor/dust. Use personal protective equipment and avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information.

## APPLICATION

- Follow recommendations provided in your equipment's owner's manual
- Follow your organization's manuals and/or best practices for preparation, cleaning, conversion, application and ongoing maintenance practices
- If you have further questions, please contact BioBlend Tech Services by filling out the contact us form on [bioblend.com](http://bioblend.com)

## AVAILABILITY

Worldwide

## TECHNICAL SERVICES

For additional information including the Safety Data Sheet (SDS), Frequently Asked Questions, and Glossary please visit [bioblend.com](http://bioblend.com).

## APPROVALS AND CERTIFICATIONS

- USDA BioPreferred Program – 90% Biobased material
- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)

## TYPICAL PROPERTIES

Property	ASTM Test Method	HD #1	HD # 2
Product Code		BG22001	BG22002
NLGI Grade		1	2
Color		Amber	Amber
Penetration	ASTM D217	310-340	265-295
Dropping Point °F (°C)	ASTM D2265	>350 (176)	>350 (176)
Viscosity @40°C, cSt	ASTM D445	220	220
Viscosity @100°C, cSt	ASTM D445	45.6	45.6
Flash Point °F (°C)	ASTM D92	520 (271)	520 (271)
Fire Point °F (°C)	ASTM D92	550 (287)	550 (287)
Timken OK Load, lbs	ASTM D2509	55	55
Water Washout, % loss max	ASTM D1264	6	6
4 Ball Wear, mm	ASTM D2266	.50	.50
4 Ball EP Weld Load, lbs	ASTM D2596	315	315
Rust Test, 1% Synthetic Sea Water	ASTM D05959	Pass	Pass
U.S. Steel Mobility, gm/min	USS LT-37		
@ 77° F		2574	1168
@ 20° F		393	166
@ 0° F		106	36
Copper Corrosion	ASTM D4048	1A	1A
Rust Test, A & B	ASTM D665	Pass	Pass
Readily Biodegradable (meaning>60%)		Pass	Pass
Biodegradability, %	OECD 301B	>75	>75
Minimally Toxic		Pass	Pass
Algae (EC 50), 72 hr, mg/L	OECD 201	>26,000 mg/L	>26,000 mg/L
Daphnia (EC 50), 48 hr, mg/L	OECD 202	>13,000 mg/L	>13,000 mg/L
Fish (LC 50), 96 hr, mg/L	OECD 203	>40,000 mg/L	>40,000 mg/L
Not Bioaccumulative (Calculated value as per EPA standard)		Pass	Pass
Bio-based Content, %	ASTM D6866	90	90

The values quoted above are typical of normal production. They do not constitute a specification.

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