

# HonuBio HD 1

## Lithium Grease NLGI 1



Next Generation Sustainable Lubrication Technologies

### PRODUCT NAME

**HE-HD 1 Biodegradable Lithium Grease NLI 1**

### MANUFACTURER

Honu Eco Sustainable Solutions, Inc.  
200 Mayfly Way  
Simpsonville, South Carolina 29680

### DESCRIPTION

**HonuBio HD 1** is a readily biodegradable, minimally toxic, lithium grease formulated to provide high film strength, withstand high operating temperatures, and maintain excellent stability. HonuBio HD 1 features a high viscosity base oil for high load carrying capabilities. HonuBio HD 1 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
- Lithium thickener providing superior lubricity
- Withstands high temperatures
- USDA BioPreferred Program – 90% biobased content
- Classified as environmentally acceptable lubricants (EAL's) per EPA requirements

### 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.

### PACKAGING

- 35 lb. Pail
- 120 lb. Kegs
- 400 lb. Drum

### 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 Honu Eco 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 Honu Eco Tech Services by filling out the contact us form on [honueco.com](http://honueco.com)

### AVAILABILITY

Worldwide.

### TECHNICAL SERVICES

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

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### Typical Properties

Properties	ASTM Test Method	HonuBio HD 1
Product Code		HBHD1
NLGI Grade		1
Color		Amber
Penetration	ASTM D217	310-340
Dropping Point, °C	ASTM 2265	176
Base Oil Viscosity @40°C, cSt	ASTM D445	220
Base Oil Viscosity @100°C, cSt	ASTM D445	45.6
Flash Point °C	ASTM D92	271
Fire Point °C	ASTM D92	287
Timken OK Load, lbs	ASTM D2509	55
Water Washout, % loss max	ASTM D1264	6
4 Ball Wear, mm	ASTM D2266	0.5
4 Ball EP Weld Load, lbs	ASTM D2266	315
Rust Test, 1% Synthetic Sea Water	ASTM D05959	Pass
U.S. Steel Mobility, gm/min	USS LT-37	
@ 77° F		2574
@ 20° F		393
@ 0° F		106
Copper Corrosion	ASTM D4048	1A
Rust Test, A & B	ASTM D665	Pass
Readily Biodegradable (meaning >60%)		Pass
Biodegradability, %	OECD 301B	>75
Minimal Toxic		Pass
Algae (EC 50), 72 hr, mg/L	OECD 201	>26,000 mg/L
Daphnia (EC 50), 48 hr, mg/L	OECD 202	>13,000 mg/L
Fish (LC 50), 96 hr, mg/L	OECD 203	>40,000 mg/L
Not Bioaccumulative (Calculated value as per EPA standard)		Pass
Bio-based Content, %	ASTM D6866	90

#### Biobased/Biodegradable/Non-Bio accumulative

Based on evaluation of the base oils and the finished products, Honu Eco biobased products are designed to be biodegradable, aquatically non-toxic, not bioaccumulative and has no impact on plants as determined by known test methods. Nevertheless, the use of all Honu Eco products is subject to the local ordinances and ultimate responsibility for impact remains with user.

The values quoted above are typical of normal production. They do not constitute a specification. Honu Eco makes no representations, guarantees or warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose, or as to the correctness or sufficiency of data herein presented. All risk and liability regarding use, conditions of use and handling of this product are assumed by the buyer and any user. No agent, representative, or employee of this company is authorized to vary any of the terms of this notice. To continue to provide superior quality, Honu Eco reserves the right to change the composition of its products without notice.

Honu Eco, Inc. / 200 Mayfly Way / Simpsonville, South Carolina 29680 / [www.honueco.com](http://www.honueco.com)