

# BIOGREASE HD

**Overview:** 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. Available in NLGI grades 1 and 2.

## Specifications, Approvals, Recommendations:

- USDA BioPreferred Program
- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's 2013 U.S. Vessel General Permit (VGP)

Physical Properties	HD #1	HD #2
NLGI Grade	1	2
Penetration, ASTM D217	310-340	265-295
Color	Amber	Amber
Texture	Smooth	Smooth
Viscosity, ASTM D445 @40°C, cSt	220	220
Viscosity, ASTM D445 @100°C, cSt	45.6	45.6
Flash Point, ASTM D92, °F (°C)	520 (271)	520 (271)
Fire Point, ASTM D92, °F (°C)	550 (287)	550 (287)
Copper Corrosion, ASTM D4048	1A	1A
Dropping Point, ASTM D2265, °F (°C)	>350 (176)	>350 (176)
Water Washout, ASTM D1264, % loss max	6%	6%
Rust Test, ASTM D1743, A & B	PASS	PASS
Rust Test, ASTM D5959, 1% Synthetic Sea Water	PASS	PASS
Timken OK Load, ASTM D2509, lbs	55	55
U.S. Steel Mobility, USS LT-37, gm/min @ 77° F @ 20° F @ 0° F	2574 393 106	1168 166 36
4 Ball EP Weld Load, ASTM D2596, kg	315	315
4 Ball Wear, ASTM D2266, mm	.50	.50
<b>Environmental Stewardship: Meets EPA requirements to be classified as an EAL per the 2013 VGP</b>		
Readily Biodegradable (meaning>60%) OECD 301B, %	PASS >75	PASS >75
Minimally Toxic OECD 201 - Algae (EC 50), 72 hr, mg/L OECD 202 - Daphnia (EC 50), 48 hr, mg/L OECD 203 - Fish (LC 50), 96 hr, mg/L	PASS >26,000 mg/L >13,000 mg/L >40,000 mg/L	PASS >26,000 mg/L >13,000 mg/L >40,000 mg/L
Not Bioaccumulative* [*Calculated value as per EPA standard]	PASS	PASS
<b>Additional Environmental Features and Characteristics</b>		
Bio-based Content, ASTM D6866, %	90	90

**Applications & Industries:** Any industry (hydroelectric powered dams, construction, refuse, mining, dredging, marine, agriculture, oil & gas, plant operations, etc.) utilizing equipment with a need for a heavy duty grease, especially systems where a release into the environment is possible or where a leak or spill could reach a waste stream. Suitable for use in automatic lubrication systems or via manual application.



For more information about this and our other products contact us at Zen Earth Corp 877.769.7632 or at email [products@zenearthcorp.com](mailto:products@zenearthcorp.com).

