

BIOGREASE HDS 2

Overview: BIOGREASE HDS 2 is a readily biodegradable, minimally toxic, synthetic lithium complex grease formulated to provide high film strength, withstand high operating temperatures, and maintain excellent stability. BioGrease HDS 2 features a high viscosity base oil for high load carrying capabilities. BioGrease HDS 2 also has excellent anti-wear, enhanced water washout properties, and high temperature stability. It is designed for heavy-duty use in a variety of industrial, mobile, and marine applications. Available in NLGI grade 2.

Specifications, Approvals, Recommendations:

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

Physical Properties	HDS 2
Base Oil Type	Synthetic Ester (ISO - 220)
Thickener Type	Lithium Complex
Appearance	Tacky
Worked Penetration, 60 Strokes (D217)	265 - 295
Dropping Point, °C (D225)	255
Base Fluid Viscosity (D445) at 40 °C, cSt	195.7
4-Ball Weld, kg (D2596)	400
4-Ball Wear Scar Dia, mm (D2266)	0.59
Copper Corrosion (D4048)	1B
Water Washout at 79°C, % Loss (D1264)	4.2%
Water Spray-ff, % Loss (D4049)	13.6
Roll Stability, Pts Change (D1831)	+8
Water Stability, Pts Change After Shell Roll (D7342)	+31
Environmental Stewardship: Meets EPA requirements to be classified as an EAL per the 2013 VGP	
Ultimately Biodegradable (meaning >60%) OECD 301B, %	PASS >60
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
Not Bioaccumulative* [*Calculated value as per EPA standard]	PASS
Additional Environmental Features and Characteristics	
Bio-based Content, ASTM D6866, %	86

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. **This product contains proprietary tackifier additives that make it ideal for marine construction, pins, bushings, and sheave applications.**

