

HonuBio Kaku DR

Biodegradable Drill Rod Grease

NLGI 3



Next Generation Sustainable Lubrication Technologies

PRODUCT NAME

HonuBio Kaku DR
Biodegradable Drill Rod Grease

MANUFACTURER

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

DESCRIPTION

HonuBio DR is a readily biodegradable drill rod grease formulated from natural ester base oils and an aluminum complex-based thickener. The additive package is designed to provide superior lubrication in high temperature and heavy load applications normally associated with drilling operations, especially the lubrication of drill rods in coring operations. Available in NLGI grade 3.

FEATURES AND BENEFITS

- Superior adhesion to drill rods due to extremely tacky formulation
- Contains advanced extreme pressure additives for excellent protection
- Better coefficient of friction than most petroleum-based grease
- Formulated to be applied on wet surfaces
- Higher flash point than major petroleum greases for increased safety
- Classified as an Environmentally Acceptable Lubricant (EAL) as per the EPA's 2013 U.S. Vessel General Permit (VGP)

APPROVALS AND CERTIFICATIONS

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)

PACKAGING

- 35 Lb Pail
- 400 Lb Drum

SUITABLE USES

Any drilling or coring application (geotechnical, oil & gas, mining, etc.) utilizing equipment with a need for a special purpose drill rod grease, especially systems where a release into the environment is possible or where a leak or spill could reach a waste stream.

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**

AVAILABILITY

Worldwide.

TECHNICAL SERVICES

For additional information including the Safety Data Sheet (SDS), Frequently Asked Questions, and Glossary please visit **honueco.com**.

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Typical Properties

Properties	ASTME Test Method	Drill Rod Grease # 3
Product Code		A0116-AI3
NLGI Grade		3
Appearance		Amber
Thickener Type		Aluminum Complex
Base Oil Viscosity @40°C, cSt	ASTM D445	460
Base Oil Viscosity @100°C, cSt	ASTM D445	58
Base Oil Viscosity Index (VI)	ASTM D2270	196
Base Oil Flash Point °C	ASTM D92	326
Cone Penetration, Unworked	ASTM D217	220-250
Four Ball Wear Scar, mm	ASTM D2266	>0.45
Four Ball Wear Load, kg	ASTM D2596	>500
Dropping Point, °C	ASTM D225	>240
Oil Separation, %	ASTM D6184	<5
Readily Biodegradability (meaning >60%)		Pass
Biodegradability %	OECD 301B	> 60
Daphnia (EC 50), 48 hr	OECD 202	Non-Toxic
Base Oil Plant Toxicity	OECD 208	Non-Toxic
Not Bioaccumulative (Calculated value as per EPA standard)		Pass

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.