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DRILLING & MINING PRODUCTS GUIDE

PROTECTION FOR YOUR EQUIPMENT AND OUR VALUABLE RESOURCES



BioBlend has the bio-based products needed to provide operators in the drilling and mining industries great performance in very harsh and rugged environments. Our products allow drillers to prevent downtime, excessive wear, and to lessen fuel usage while protecting customers' valuable resources. BioBlend Rock Drill Oils provide superior lubricity to reduce tool wear, increase penetration rates, and extend motor life.

Transmission and hydraulic systems found on the rig trucks, crane carriers, water trucks, draw-works, mud pumps and other equipment can be successfully lubricated and protected with BioBlend

products. Drilling equipment operates in harsh environmental conditions with exposure to high amounts of moisture and dirt as well as a wide array of temperatures. BioBlend understands your lubrication challenges and knows that you have a complete understanding of the need and importance of protecting our natural resources.

BioBlend products have been successfully used in natural gas and oil drilling, directional drilling, water well drilling, as well as many types of construction projects.

BioBlend Renewable Resources combines highly stable vegetable base oils with unique additive technologies to create products that provide excellent thermal and oxidative stability while delivering superior anti-wear and anti-corrosion protection. BioBlend products are readily biodegradable; therefore they offer equipment operators the opportunity to meet the highest standards of environmental responsibility without sacrificing quality or dependability.

- OPERATE AT PEAK
 RELIABILITY
 WITHOUT
 TRADE-OFFS USING
 BIODEGRADABLE
 PRODUCTS
- PROTECT OUR
 NATURAL
 RESOURCES AS WELL
 AS YOUR
 REPUTATION WITH
 BIODEGRADABLE
 LUBRICANTS



DISTRIBUTED LOCALLY BY:

OUR PRODUCTS ARE:

- READILY BIODEGRADABLE
- PROTECTING YOUR WATER AND SOIL RESOURCES
- RENEWABLE AND BIO-BASED ALTERNATIVES TO PETROLEUM
 OURS
- AFFORDABLE AND LOCALLY AVAILABLE

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ROCK DRILL OIL TO EXTEND TOOL LIFE AND ENSURE ENVIRONMENTAL PROTECTION

Bio Lube RD

Bio Lube RD is a readily biodegradable, heavy duty rock drill lubricant designed to meet the requirements of pneumatic tools, down-hole, and surface drilling equipment. It is formulated with high viscosity index vegetable base oil, anti-wear additives, and corrosion protection. Bio Lube RD's natural polarity and tackiness additive allows the lubricant to adhere to tooling surfaces, further reducing corrosion and wear in the presence of compressed air. Its wear reduction performance greatly reduces the incidence of premature bit shanking and lowers operating costs.

Bio Lube RDP

The **Bio**£ube **RDP** series are readily biodegradable, heavy duty rock drill lubricants specifically designed to meet the requirements of pneumatic drilling equipment. The specially selected base stocks and additives are designed to provide maximum protection to pneumatic percussion rock drills, jackhammers, and drifter drills. The **Bio**£ube **RDP** series is available in ISOs 46, 100, 150, 220, and 320.

BIO-HYDRAULIC FLUIDS AND TRACTOR FLUID FOR ALL OPERATING ENVIRONMENTS

Bio Flo AW

Bio Flo AW biodegradable anti-wear hydraulic fluids are formulated from readily biodegradable, high lubricity base oils, coupled with proprietary anti-wear and anti-corrosion additives. These high performance formulas can reduce operating temperatures, friction, and component wear in mobile hydraulic systems. **Bio** Flo AW fluids offer excellent thermal and oxidative stability to ensure superior service life with minimal viscosity change over a broad range of operating temperatures. **Bio** Flo AW fluids are suitable for use in ecologically sensitive applications, or wherever a readily biodegradable, high performance anti-wear hydraulic fluid is required. This product is available in ISOs 32, 46, and 68.

Bio Flo UTF

Bio #16 UTF is formulated from readily biodegradable, high lubricity base oils coupled with proprietary anti-wear and anti-corrosion additives to meet the requirements for Universal Tractor/Transmission Oil (UTTO) drive train/hydraulic fluids. This high performance formula can reduce operating temperatures and component wear in tractor hydraulic systems. Bio #16 UTF possesses excellent thermal and oxidative stability, ensuring superior service life with minimal viscosity change over a broad range of operating conditions. Bio #16 UTF is suitable for use in ecologically sensitive applications or wherever a readily biodegradable, high performance universal tractor/transmission fluid is required.



"Imagine your financial and environmental goals working together, that's the beauty of going green"



PROTECTING YOUR EQUIPMENT & RESOURCES

BIODEGRADABLE DRILL ROD AND EXTREME PRESSURE GREASES

Bio Grease DR3

Bio Grease DR3 is the ideal environmentally friendly solution for drill rod applications. It is formulated from high purity vegetable oils and thickened with very shear stable lithium soap. Bio Grease DR3 utilizes an optimized blend of polymers which enable the product to function at temperatures well beyond the limits of other competing products. The properties of Bio Grease DR3 have been tailored to provide uniform distribution of the grease as the rod goes down the hole without the "globbing" experienced with fibrous or tackified products. This provides excellent lubrication between the rod and rock strata without increased drag.



Bio Grease EP2

Bio Grease EP2 is a readily biodegradable lubricant designed for high film strength, high operating temperatures, greater stability and longer lubricant life. Bio Grease EP2 features high load carrying and anti-wear characteristics, along with a remarkably low water washout property. It is designed for heavy-duty use in a wide variety of applications across all categories of industrial and commercial equipment. Bio Grease EP2 is especially suitable for hot, wet, and ecologically sensitive environments.

EXTREME PRESSURE INDUSTRIAL GEAR LUBRICANTS

Bio Gear EP

Bio Gear EP extreme pressure gear oils are a series of readily biodegradable extreme pressure gear lubricants designed for a variety of industrial and mobile equipment applications. Each grade of Bio Gear EP is designed to replace standard gear lubes within the appropriate AGMA grades. The Bio Gear EP series offers excellent thermal and oxidation stability. It also reduces operating temperatures to ensure superior service life with minimal gear, shaft, and bearing wear, all in a readily biodegradable, non-toxic, environmentally friendly formula. This product is available in ISO grades 150, 220 and 320.

BIODEGRADABLE MULTI-PURPOSE PENETRATING OIL

BioLube PO

Bio Lube PO is an excellent penetrating oil and general purpose lubricant that is formulated from readily biodegradable, renewable base stocks and additives. Bio Lube PO has superior wetting ability and a high affinity for metal surfaces which offer excellent penetrating and loosening of frozen, rusted or stuck components. The "green" solvents used in Bio Lube PO are excellent for dissolving dirt, grease and removing debris while leaving a light lubricating film which helps control corrosion. Since it contains natural and biodegradable ingredients, it is safer for the environment. As with any solvent-type of product, care should be taken when using around certain plastics, foam rubbers, urethanes and painted surfaces as they may be incompatible.

In case you were wondering...

If your lubricants biodegrade in the environment, won't they degrade in my system?

No. Biodegradation occurs only when the products are exposed to microbial organisms abundant in soil and water.



DRILLING & MINING PRODUCTS GUIDE



BIOBLEND IS:

- DRIVING THE AVAILABILITY AND ADOPTION OF SUSTAINABLE PRODUCTS
- MEETING THE PUBLICS RAPIDLY GROWING DEMAND FOR ENVIRONMENTALLY RESPONSIBLE PRODUCTS
- Competing without Government Subsidies
- PROVIDING A COMPLETE PRODUCT LINE TO IMPACT YOUR ENTIRE OPERATION
- OPERATED BY THE MOST EXPERIENCED TEAM IN THE INDUSTRY
- SUPPLYING THE MARKET THROUGH AN EFFICIENT AND ECOLOGICALLY RESPONSIBLE DISTRIBUTION NETWORK

SAVING THE PLANET ONE DROP AT A TIME!



BioBlend provides products formulated from environmentally responsible chemistries that are produced from renewable resources and designed to assure optimum performance of our customers' operating systems. We provide the solutions to your operating challenges with innovative technology that leverages the latest advances in bio-based feedstocks and bio-friendly additives.

BioBlend combines highly stable vegetable base oils with unique additive technologies to create products that provide excellent thermal and oxidative stability while delivering superior anti-wear

and anti-corrosion protection. Our biodegradable formulations are designed to maximize renewable content that meets or exceeds USDA standards for renewable products.

Reduce your Impact on Water Quality by switching to biodegradable products

Environmentally Friendly Multi-Purpose Oil

BioBlend Multi-Purpose Oil has been lubricating industrial and construction applications for over 8 years. BioBlend Multi-Purpose Oil is an excellent all around lubricant wherever there is metal-to-metal contact. The base stocks have an affinity for metal surfaces which causes them to want to "creep", forming a protective layer between the surfaces of the application resulting in reduced friction. The product also has a natural cleans-

ing ability which helps to break down hydrocarbon residues, dirt and grime which is the major cause of pin and bushing fatigue and wear. Even though we designed this product for the toughest industrial applications it is safe enough to be registered with NSF as meeting the guidelines of an H1 food grade product for incidental food contact. Since it contains natural and biodegradable non-toxic ingredients, it is safe for the environment, wild life and people!



Product Advantages

- 99% VOC free
- Excellent EP and antiwear properties
- Advanced rust & corrosion protection
- Superior temperature & oxidation stability
- Affinity for metal promotes lubricating properties
- NSF H1 Food Grade for incidental contact in food preparation and packaging plants

Hundreds of uses

Chains

Penetrates the pins and bushings keeping them clean Wire rope

Creeps down to the core and coats all the strands

Slides

Creates a thin film between metal surfaces reduces friction

Metal cutting, Drilling & Tapping

Reduces friction, removes cuttings, extends tool life



Environmentally Friendly Penetrating Oil

BioBlend Penetrating Oil's revolutionary formula gives this product the power to compete and outperform the well known industrial strength penetrating oils and general purpose lubricants currently on the market. As an added bonus the product is readily biodegradable and comes from renewable resource base stocks and additives. BioBlend Penetrating Oil has superior

wetting ability and a high affinity for metal surfaces which offer excellent penetrating and loosening of frozen, rusted or stuck components. The "green" solvents used are excellent for dissolving dirt, grease and removing debris, while leaving a light lubricating film which helps control corrosion. Since it contains natural and biodegradable ingredients, it is safer for the environment!

The product is available in a variety of convenient package styles including our sharp looking, low carbon footprint aerosol can and trigger sprayers.

Product Advantages

- Low toxicity
- Fast penetrating action
- Biodegradable, a renewable resource
- Cuts through dirt, grease and grime
- Helps protect metal surfaces from corrosion
- Excellent water displacement properties
- Affinity for metal promotes lubricating properties

Customer Comments

"This is the fastest acting penetrating oil I have ever used"

"Been in the business for over 20 years and I have never seen a product cut through rust and loosen parts like this product"

"I have tried them all and this is the best penetrating oil on the market today and it is friendly to boot"

