

# Biobased Lubricants for Drill Rods

## New Product Trends

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### Introduction

Drilling Rod greases are employed in mining for drilling core samples or other down-hole drilling operations. The conditions which they are used in are: hot, cold, dry, humid or submerged in water. The lifespan of drill rods can be dramatically increased when coated with a lubricant to reduce friction. The variability in use dictates the desired lubricant properties. Since water is present during drilling, greases that have resistance to water washout are required. Also, lubricants include additives and materials that would increase the density of the product relative to water. To date a large majority of drill rod greases are barium thickened which is known for its superior water washout resistance but also has a heavy metal component. Recently, new environmental guidelines are driving users to give consideration not only to the lubricants that lubricate and protect, but that are also considerate to the environment. The fact that barium is a heavy metal component makes it undesirable in environmentally sensitive areas.