



MOLUB-ALLOY® 936 SF HEAVY OPEN GEAR SPRAY (ODC FREE)

Product Data Sheet

Molub-Alloy 936 SF Heavy Open Gear Spray (ODC Free) lubricant is a uniquely compounded open gear lubricant developed specifically for use on heavy duty equipment in mining and industrial service. 936 SF Heavy is compounded to give maximum protection to gears and slides on large draglines and shovels while minimizing potential pollutants to the environment.

Molub-Alloy 936 SF Heavy Open Gear Spray is part of Castrol Performance Lubricants' Eco-Solutions™ product offering. Formulated to address environmental concerns, Molub-Alloy 936 SF Heavy Open Gear Spray is free of ozone-depleting chemicals (ODC Free), lead, antimony, barium, and chlorinated solvents.

The structural integrity and strength of the lubricating film is particularly used for lubricant dispensing. Propellant is valuable in the critical process of seating new gears because of the natural occurrence of high spots (asperities) in newly machined surfaces. The lubricating film must separate the mating surfaces sufficiently to cushion the effect of the impact of asperities, and thus minimize initial pitting which could lead to progressive and destructive pitting later.

DESCRIPTION

A highly refined, viscous, paraffinic petroleum derivative is the foundation of a blended base fluid with excellent natural chemical and thermal stability. Molub-Alloy 936 SF Heavy is compounded to flow readily in the film-forming process; yet it resists "squeeze-out" and clings tenaciously even to gear teeth in vertical orientation.

A proprietary blend of Molub-Alloy lubricating solids is included to promote antiwear and load carrying properties beyond those of conventional lubricants. The select lubricating solids work synergistically with chemical antiwear and extreme pressure (EP) additives to reduce contact temperatures while providing excellent antiweld protection under extreme pressure and shock loading.

Rust and oxidation inhibitors are included in the formulation to protect the equipment and the lubricating film against the elements in severe climate.

APPLICATIONS

Mining applications include all types of open gears, rails and rollers, racks and pinions, dipper sticks and other slides on shovels and draglines.

Molub-Alloy 936 SF Heavy may be applied either manually or by heavy duty automatic systems.

ADVANTAGES

Compounded for the protection of the ecology, the elimination of materials considered to be hazardous.

Forms tough durable film with "cushioning" effect, even under extreme pressures and at very slow speeds; film resists erosion from rain or sleet, and resists peeling in dusty environments.

Resists film destruction by contaminating oils and greases migrating from nearby mechanisms.

NOTES

Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. Store in a clean, dry area below 120°F/49°C away from all ignition sources. Avoid breathing mist.

For specific terms, conditions, warranty, and availability, refer to the Castrol Performance Lubricants' Price List in effect at time of purchase.

Please See Reverse Side for Typical Properties.

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MOLUB-ALLOY 936 SF HEAVY 10-99 –R01
Formerly PDS 4478 10/99

Molub-Alloy® Optimol® Tribo®

TYPICAL PROPERTIES**Molub-Alloy 936 SF Heavy
Open Gear Spray (ODC Free)**

Specific Gravity, ASTM D 1298 @ 15.6°C/60°F	1.002
Pounds Per Gallon @ 15.6°C/60°F	8.35
Consistency, NLGI grade	0
Worked Penetration, ASTM D 217, 60 Strokes, mm/10	355-385
Viscosity, Apparent Brookfield Spindle #7 @ 10 rpm: @ 25°C, cSt	144,000
Base Fluid Properties (Extracted): Viscosity, ASTM D 445, D 2161: @ 40°C, cSt	1600
@ 100°C, cSt	50
Flash Point, ASTM D 92, COC, °C/°F	207/405
Four Ball EP Test, ASTM D 2596 Load Wear Index, kg	120+
Weld Load, kgf	800+
Graphite Abrasion Test, ASTM D 1367 (Modified*) Weight Loss, mg	0.5
Copper Corrosion Test, ASTM 4048 24 hrs. @ 100°C	Pass
Pumpability, Lincoln Ventmeter psi @ -18°C/0°F	---
psi @ -1°C/30°F	500
Molub-Alloy Solids, Grade Classification	Open Gear

Subject to Usual Manufacturing Tolerances.

* Modified using 15% lubricant instead of 15% graphite.