

# LSG SYNTHETIC LITHIUM COMPLEX 220 GREASE NO. 1 & 2

Full Synthetic Lithium Complex Grease for High Loads, Extreme  
Temperatures & Water Presence in Mining & Frack Applications  
Multi-Purpose Synthetic Grease for Uncompromising Performance in  
Demanding Off-Highway and Drilling Environments.

# LSG LITHIUM COMPLEX 150 GREASE NO. 00, 0, 1 & 2

**LONE STAR**  
GREASE & LUBRICANTS

Is a full-synthetic PAO, lithium complex grease specifically formulated for the most challenging high-load, extreme temperatures, and high-moisture environments typical of the **mining and frack industry**. Featuring a synthetic base oil, this grease ensures robust lubricant film strength, exceptional thermal stability, and enhanced resistance to water, mud, and wear from high loads.

The availability of NLGI #1 and #2 consistency provides excellent mechanical stability and versatility, making it an ideal choice for centralized lubrication systems or manual application on heavy earthmoving and drilling equipment where superior adhesion, load-carrying capacity, and corrosion resistance are critical.

Whether exposed to extreme operational heat, constant water or mud presence, heavy loads, or drill cuttings, LSG Synthetic Lithium Complex 220 Greases offer long-lasting protection and significantly reduces maintenance cycles in continuous operations.

This grease is meticulously designed to resist oxidation, water washout, and wear under extreme conditions—making it an optimal choice for a wide range of demanding applications across draglines, excavators, haul trucks, drilling rigs, hydraulic fracturing units, and other vital components that require superior performance and extended lubricant life in harsh conditions.

## KEY FEATURES

- **Full synthetic base oil** for robust film strength, excellent load-carrying capacity, and broad temperature performance, critical for heavy-duty mining and frack machinery.
- **Lithium complex thickener** for high dropping point and superior thermal stability, maintaining consistency in extreme operating temperatures encountered in remote and high-intensity operations.
- **NLGI #1 and #2 consistency** for versatile application, ensuring pumpability in centralized lubrication systems on large equipment and structural durability in heavy-duty bearings and pins.
- **Outstanding resistance to water, mud, abrasive dust, and process fluids (e.g., frack water)**, providing critical protection against common contaminants in mining and drilling environments.
- **Exceptional anti-wear and extreme pressure (EP) properties**, safeguarding components under high loads, high vibration, and continuous operations typical of extraction and processing.
- **Suitable for extended re-lubrication intervals under severe conditions**, significantly reducing maintenance frequency and operational costs in remote and challenging sites.

## CUSTOMER BENEFITS

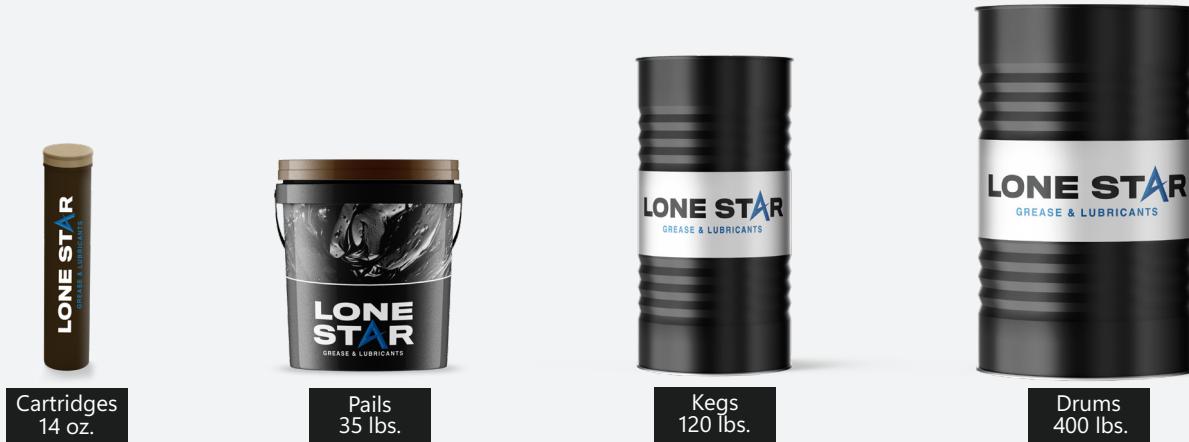
- ✓ Provides long-lasting protection in extreme heat/cold, high humidity, and water-present environments, safeguarding valuable mining and frack equipment.
- ✓ Reduces gear and bearing wear and friction in heavy earthmoving, drilling, and processing machinery, enhancing efficiency and component lifespan.
- ✓ Extends bearing and component life under heavy loads and continuous operation, minimizing costly repairs and unplanned downtime for critical assets.
- ✓ Delivers consistent performance across broad temperature ranges, from cold to high operating heat, ensuring reliable equipment function in varied global climates.
- ✓ Highly compatible with centralized and manual lube delivery systems, simplifying application and ensuring thorough lubrication for large machinery.
- ✓ Resists contamination from abrasive rock dust, drilling muds, and water, minimizing internal damage to lubricated parts.

## APPLICATIONS

### LSG Synthetic Lithium Complex 220 Grease No. 1 & 2 is recommended for:

- **Heavy earthmoving equipment:** Draglines, excavators, haul trucks, loaders, dozers, graders, and their associated pins, bushings, and pivot points.
- **Drilling and Hydraulic Fracturing (Frack) equipment:** Drilling rigs, top drives, mud pumps, high-pressure pump bearings, wellhead components, and shaker screens.
- **Crushing and Conveying systems:** Bearings in crushers, grinding mills, conveyor idlers, and stackers.
- **General mining machinery:** Underground mining equipment, continuous miners, roof bolters, shuttle cars.
- Any heavy-duty application in the **mining, quarrying, and oil & gas (upstream) sectors** requiring an ISO VG 220 synthetic, water-resistant grease with high load-carrying capabilities and long life properties.

# PACKAGING:



\*Custom and Bulk Packaging available upon request.

## TYPICAL PROPERTIES

Property	No. 1	No. 2	Test Method
NLGI Grade	1	2	ASTM D217
Worked Penetration (60X)	310–340	265–295	ASTM D217
Dropping Point (°C)	>260	>260	ASTM D2265
Base Oil Viscosity @ 40°C (cSt)	220	220	ASTM D445
Four Ball Weld Load (kg)	400	400	ASTM D2596
Four Ball Wear (mm)	0.45	0.45	ASTM D2266
Timken OK Load (lbs)	45	45	ASTM D2509
Water Washout, % @ 175°F	<2	<2	ASTM D1264
Rust Test	Pass	Pass	ASTM D1743
Color	Red	Red	Visual
Texture	Smooth / Tacky	Smooth / Tacky	Visual
Water Spray Off Test	<10%	<10%	ASTM D4049



Typical properties reflect the expected results within normal production tolerances but do not constitute a specification. Minor variations that do not impact product performance may occur during standard manufacturing processes or at different blending locations. The information provided here is subject to change without notice.

### Health and Safety:

When used as intended, this product is not expected to pose any health risks or safety concerns. To minimize exposure, avoid direct skin contact and wear resistant gloves when handling used lubricants. If contact occurs, wash the affected area immediately with soap and water. For comprehensive guidelines on safe handling and detailed product information, please refer to the Material Safety Data Sheet (MSDS) available on our website. <https://lonestargrl.com>