



*"The First in Synthetics"®*

## **Industrial Synthetic Lubricants**

### **PRODUCT DESCRIPTION**

AMSOIL Synthetic GH (with moly) and GL Series Greases are high-quality, extreme-pressure lithium complex greases that are composed of ISO 150 synthetic fluids, a proprietary polymer combination and a well-formulated additive system. These premium greases exhibit high dropping points, good pumpability at low temperatures and superior oxidation stability, water resistance, rust and corrosion protection and anti-wear performance.

AMSOIL Greases combine the advantages of synthetic base stocks and lithium complex thickeners to virtually eliminate deficiencies common to many commercial grade greases—specifically, poor water-washout resistance (resulting in a lack of lubrication, rust and corrosion), thermal and oxidative instability (resulting in short product life and breakdown), poor high-temperature performance (causing carbon build up, wear and bearing failure) and poor cold-temperature performance (causing difficulty in pumping and handling).

The GH & GL Series Greases are naturally tacky, providing excellent adhesion to critical components. The ability of these greases to provide problem-free operation means increased uptime and reduced repair and maintenance costs.

### **PERFORMANCE FEATURES**

- High dropping point (exceeds 500°F)
- Resists thermal and oxidation degradation (lasts longer than conventional grease)
- Excellent water-washout resistance
- Meets ASTM D-4950 Service Classification GC/LB (#1 & #2 Grade)
- **GLB:** Exceeds Cincinnati Milicron P-72 Spec. (#1 Grade)
- **GLC:** Exceeds Cincinnati Milacron P-64 Spec. (#2 Grade)
- **GLC:** Meets Mack MC-G Spec. (#2 Grade)

## **SYNTHETIC GL & GH SERIES EP INDUSTRIAL LITHIUM COMPLEX GREASES**

- NLGI #0, #1 and #2

### **APPLICATION RECOMMENDATION**

AMSOIL GH & GL Series Greases are recommended for heavy- and light-duty service including wheel bearings, chassis lubrication and antifriction bearings, bushings, mining equipment and many industrial applications requiring a grease with outstanding water resistance, thermal and oxidative resistance and durable high-temperature performance. These greases are excellent for use in automated or manual lubricating systems and are the preferred choice for hard-to-reach positions where frequent regreasing may be difficult and a premium grease is desired. Using conventional greases which lack the AMSOIL proprietary technology in these applications can result in increased wear and maintenance due to oxidation and product breakdown.

AMSOIL GH Series Greases contain molybdenum disulfide for extra protection and to assure good film strength during high shock loading situations often experienced on industrial, mining and construction equipment. AMSOIL GH Series Greases with moly also add extra protection to parts operating in those environments contaminated with process or environmental contaminants.

When changing greases, it is recommended that the equipment be cleaned of the old grease before the new grease is installed. Where this is not practical, flush the system with a liberal amount of the new grease while the mechanism is in operation and monitor the system for any inconsistencies.

Different types of grease thickener systems are potentially incompatible and could result in the grease softening and not providing adequate protection. AMSOIL GL and GH Series Lithium Complex Greases have typically been found compatible with lithium, lithium 12-hydroxystearate, soda, calcium, calcium 12-hydroxystearate and calcium complex thickeners. Greases found to be potentially incompatible include barium, polyurea, bentonite (clay) and aluminum complex thickeners. This information is meant to serve only as a guideline. Differences in manufacture could affect compatibility, therefore, greases in question should be checked by laboratory testing.

## TYPICAL TECHNICAL PROPERTIES

Synthetic GL & GH Series Greases	GLA	GLB	GLC	GHB	GHD
Thickener . . . . .	lithium complex	lithium complex	lithium complex	lithium complex	lithium complex
<b>Fortified with moly compound . . . . .</b>	<b>no</b>	<b>no</b>	<b>no</b>	<b>yes</b>	<b>yes</b>
<b>NLGI Consistency Grade . . . . .</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>
NLGI Performance Grade . . . . .	NA	GC-LB	GC-LB	GC-LB	GC-LB
Penetration — ASTM D-217 (25°C (77°F), 0.1 mm) . .					
Worked 60 strokes . . . . .	355-385	310-340	265-295	310-340	265-295
Dropping Point, °F — ASTM D-2265 . . . . .	430	500	550	500	550
High Temperature Life — ASTM D-3527 . . . . .	NA	107 hrs.	118 hrs.	112 hrs.	118 hrs.
Oxidation Stability — ASTM D-942 . . . . .	.5 psi, max	5 psi, max	1.8 psi	5 psi, max	2.4 psi
Water Washout — ASTM D-1264 . . . . .	16.7%	9.5%	1.6%	9.2%	1.6%
Rust & Corrosion— ASTM D-1743 . . . . .	pass	pass	pass	pass	pass
Oil Separation — ASTM D1742					
24 hrs., 25°C (77°F), % loss . . . . .	5.2	3.4	2.0	3.3	2.1
Bearing Leak Test — ASTM D-1263					
6 hrs., 600 rpm, 104°C (220°F), g lost . . . . .	NA	<6	<1	<6	<1
Four Ball Wear Test — ASTM D-2266 . . . . .	0.45	0.43	0.40	0.40	0.40
Four Ball EP — ASTM D-2596					
Weld Point, kgf . . . . .	315	315	400	400	400
Load Wear Index, kgf . . . . .	47	49	50	65	68
Timken OK Load Test —ASTM D-2509, lbs. . . . .	45	45	50	70	70
Low Temperature Torque — ASTM D-4693					
N•m, -40°C (-40°F) . . . . .	0.46	0.50	5.3	0.50	5.3
LT-37 Pumpability, 60°F . . . . .	1,000 g/min.	800 g/min.	360 g/min.	750 g/min.	350 g/min.
Copper Corrosion — ASTM D-4048 . . . . .	1B	1B	1B	1B	1B
Oil Viscosity					
40°C . . . . .	130 cSt	130 cSt	130 cSt	130 cSt	130 cSt
100°C . . . . .	16.5 cSt	16.5 cSt	16.5 cSt	16.5 cSt	16.5 cSt
Flash Point — ASTM D-92 . . . . .	450	450	450	450	450
Fire Point — ASTM D-97 . . . . .	480	480	485	480	485
Color . . . . .	Red	Red	Red	Purp/Blk	Purp/Blk
Odor . . . . .	Bland	Bland	Bland	Bland	Bland
Texture . . . . .	Smooth	Smooth	Smooth	Smooth	Smooth

### AMSOIL PRODUCT WARRANTY

AMSOIL Industrial Lubricants are formulated to meet or exceed accepted industry specifications. AMSOIL warrants that the use of its lubricants will not cause mechanical damage to any mechanically sound equipment when AMSOIL products are used in full compliance with the company's recommendations. However, the purchaser of these lubricants is responsible for determining if these specifications are adequate and proper for the intended application. The AMSOIL warranty is limited to lubricant performance consistent with indicated specifications. No additional warranty, expressed or implied, can be made.

### AMSOIL PRODUCT AVAILABILITY

AMSOIL GL and GH Series Greases are available in 14-oz. cartridges, 16-oz. tubs (GLC and GHD only), 35-lb. pails, 120-lb. kegs and 400-lb. drums.

AMSOIL Industrial Lubricants are stocked in Superior, Wisconsin and in select regional distribution centers throughout the United States and Canada. AMSOIL will stock additional quantities of lubricants or special order products based on customer requests and regional demands.

*AMSOIL Industrial Synthetic Lubricants and Dealership information are available from the AMSOIL Industrial Lubricants Department, 715-392-7101 (fax 715-392-7252).*

