



Selling Tips for Greases

The webinar will begin in less than 10 minutes.

Gordon Dillaman and Doug Rice



Selling Tips for Greases

The webinar will begin in less than 5 minutes.

Gordon Dillaman and Doug Rice



Selling Tips for Greases

Gordon Dillaman and Doug Rice

Gordon Dillaman

- Senior Account Manager – Lubricant Sales
- 40 years of Experience
 - Commercial/Industrial Manager- Southern US
 - Regional Manager– Western US
 - Specialty Products Manager- North & South America
 - Metalworking
 - Grease
 - Food Grade
 - Global Grease General Manager- Worldwide



Doug Rice

- Senior Product Specialist – Grease Technology
- 27 years of Experience
 - Laboratory Supervisor – Oklahoma City
 - Product Specialist – Fluids Technology
 - Product Specialist – Grease Technology
 - Technical Service Representative - Sales
 - Senior Account Manager – Sales
- Certifications
 - NLGI Certified Lubricating Grease Specialist (CLGS)
 - STLE Certified Lubrication Specialist (CLS)
 - STLE Oil Monitoring Analyst (OMA)





Agenda

- Grease Sales Tips
 - Greases
 - Sales Call Planning
 - Grease Questions
 - Selling Tools
 - North American Market Overview
 - Overall Volume
 - Thickener Types
 - Trends
 - Grease Basics
 - Thickener Types
 - Specific Applications
 - Advantages and Disadvantages
 - Additives Unique to Greases
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Grease Sales Tips

Gordon Dillaman

➤ WHO USES GREASE?

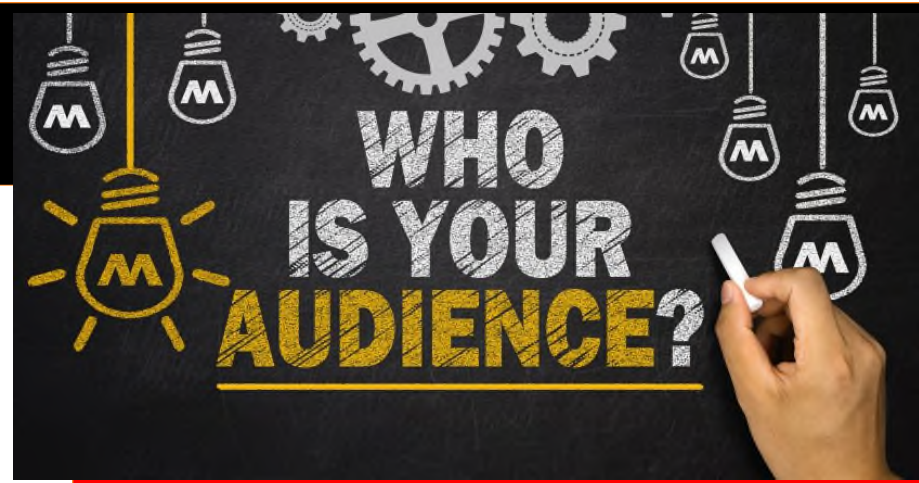
EVERYONE!!

➤ WHAT PRODUCT CATEGORY IS MOST PROFITABLE?

- MOTOR OILS
- GEAR OILS
- INDUSTRIAL OIL
- GREASE

➤ WHERE DO YOU START?

GREASE!



S M A R T

Make your SMART goals:

SPECIFIC 	MEASURABLE 	ACHIEVABLE 	REALISTIC 	TIME-BOUND
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Sales Call Planning

Existing Customers

Known Sectors

Major Users

Referrals

Overlooked sectors



What is currently used?

Is the current grease performing?

What is the application, type of bearing?

What are key characteristics they are needing in their grease?

What is the speed?

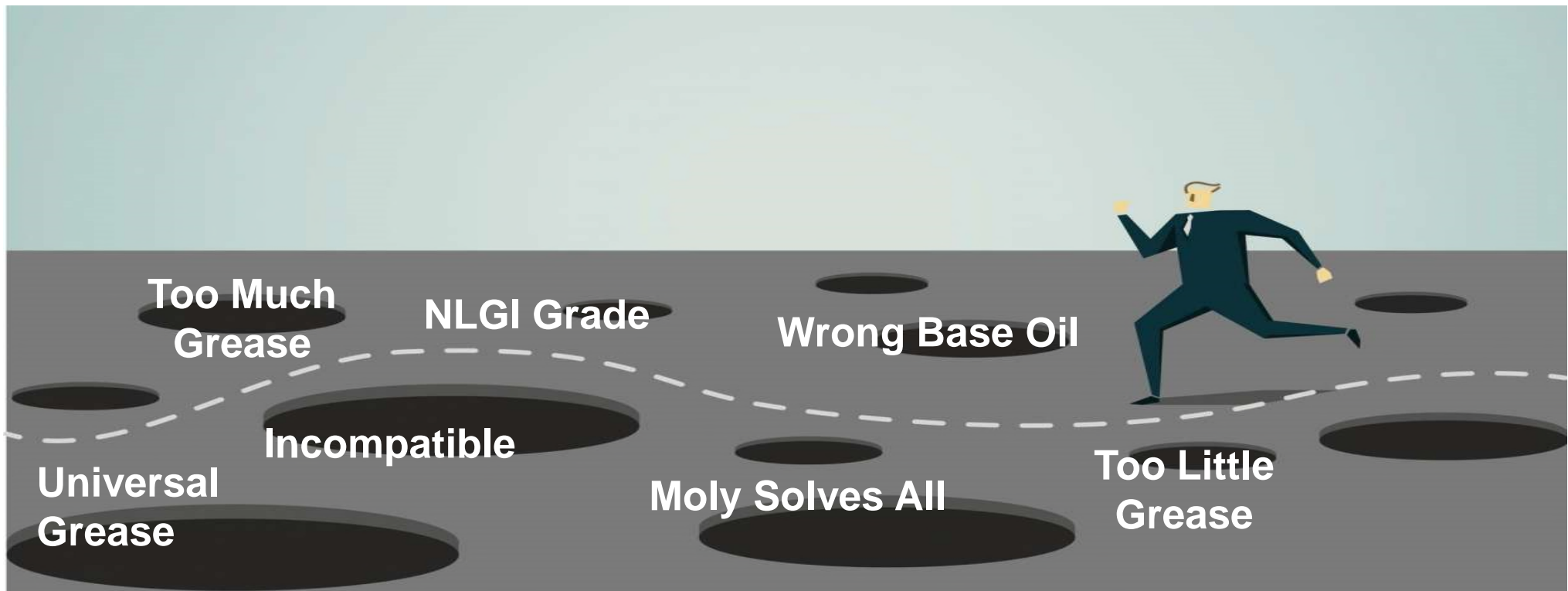
What is the temperature?

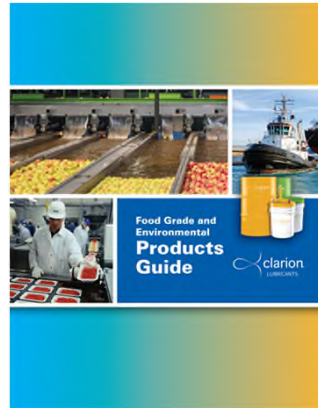
What is the load?

USE THE TOOLS AVAILABLE



KNOW THE GREASE PITFALLS





Specialized Products for the Mining industry



	Product	Benefits
Greases	Lithoplex® CM	Quality lithium-complex grease for harsh environments. Excellent extreme-pressure resistance and corrosion protection. Contains 3% molybdenum sulfide (Moly).
	Lithoplex HM	Quality lithium-complex grease for harsh environments. Excellent extreme-pressure resistance and corrosion protection for heavily loaded applications. Contains 5% Moly.
	UltraLife™ CSEP 5M	Quality calcium sulfonate-complex grease for harsh environments. Exceptional extreme-pressure resistance and corrosion protection for heavily loaded applications. Contains 5% Moly.
	SynDurance® Premium Synthetic 460 #2	Full-synthetic, lithium-complex grease. Superior water washout and spray off resistance designed for excellent corrosion protection in fresh- and sea-water conditions. Extends service life. NLGI GC-LB certified.
	SynDurance Premium Synthetic 460 #00	Full-synthetic, lithium-complex grease. Excellent corrosion protection. Extends service life. Highly water resistant. Specifically engineered for gear boxes and trailer wheel bearings.



Sales Guide: Grease

The Mystik Legacy

Mystik's heritage rests with its inception at Cato Oil & Grease nearly one hundred years ago. CITGO® purchased the Mystik brand along with Cato in 1995. Mystik's tradition-rich greases were proven in the heartland of America for many years before commercializing into even more demanding applications such as steel mills and mining operations.

Today, Mystik is found in nearly any application that demands the highest level of protection and lubrication. From truck fleets, forestry, and off-road applications, to pellet mills, the energy sector, and yes... steel mills; Mystik's performance and consistency remains unrivaled.








Most Popular Mystik Greases

JT-6 High Temp – “The Standard Setter”

JT-6 Multi-Purpose – “The Original”

JT-6 Super Heavy Duty 460 – “The Heir to the Throne”

Check out the rest of the family below...your grease solution is found here!

								
APPLICATIONS								
Automotive (MIG) Service Class: GC-LB1 Chassis, Wheel Bearings, U-Joints, Tie Rod Ends				✓	✓	✓		✓
Heavy-Duty Tractor Class 5, 7 & 8 Front Wheel, King Pin, U-Joints					✓	✓	✓	✓
Agri-Machinery Tractor's, Implements	✓			✓	✓	✓	✓	✓
Marine Tiller Wheel Bearings, Stern Drive, Steering Linkage	✓	✓			✓	✓	✓	✓
General Industrial Construction	✓		✓	✓	✓	✓	✓	✓
FEATURES								
Corrosion Protection	Freshwater	Freshwater and Saltwater	Freshwater	Freshwater	Freshwater	Freshwater	Freshwater and Saltwater	Freshwater and Saltwater
Service Life	Good	Good	Good	Good	Better	Better	Best	Best
Heavy Load & Shock-Load Wear Protection					✓	✓	✓	✓
Operating Temperature Range, °F	0 to 250	0 to 250	-80 to 250	-20 to 250	-10 to 325	-10 to 325	-5 to 350	-20 to 350
Low Temperature Performance	Good	Good	Best	Best	Better	Better	Better	Best
Stop-In-Place Performance	Better	Better	Good	Good	Better	Better	Best	Best

*Not for use on bearings with JIS-B standards.
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1M 15111002

MystikLUBES.COM



CITGO® Grease Product Application and Performance Chart

GREASES	NLGI GRADE	APPROXIMATE TEMPERATURE RANGE, °F	CERTIFICATIONS		COLOR	DROPPING POINT RANGE, °F	% MOLY	APPLICATIONS								PERFORMANCE											
			NSF H-2	NLGI Automotive Class				Automotive (Chassis, Wheel Bearings, U-Joints, Tie Rod Ends)	Heavy-Duty Trucks Class 6, 7 and 8 (Fifth Wheel, King Pins, U-Joints)	Construction/Mining	General Industrial	Heavy Industrial	Marine (Trailer Wheel Bearings*, Stern Drive, Steering Linkage)	Railroad	Agriculture	Pellet Mill	Heavy Load and Shock-Load Wear Protection	Corrosion Protection	Service Life	Low Temperature Performance							
Jet Lubricant™	1	0 to 225			Dark Brown																						
Lithoplex® CM	1	-5 to 325			Gray	500	3		•	•	•							•	•	•							
	2	5 to 325			Gray	500	3		•	•	•								•	•	•						
Lithoplex HM	1	0 to 325			Gray	500	5		•	•	•								•	•	•						
	2	5 to 325			Gray	500	5		•	•	•								•	•	•						
Lithoplex MP	0	-5 to 325			Gray				•	•	•	•							•	•	•						
	1	0 to 325		GC-LB	Gray	500			•	•	•	•							•	•	•						
	2	0 to 325		GC-LB	Gray	500			•	•	•	•							•	•	•						
Lithoplex PM	2	0 to 325			Red	500			•	•	•								•	•	•						
Lithoplex Red MP	2	0 to 325		GC-LB	Red	500			•	•	•								•	•	•						
Lithoplex RT	1	0 to 325		GC-LB	Red	500			•	•	•	•								•	•	•					
	2	0 to 325		GC-LB	Red	500			•	•	•	•								•	•	•					
Lithoplex ST	1	0 to 300			Green	410			•	•	•	•								•	•	•					
	2	0 to 300			Green	430			•	•	•	•								•	•	•					
OverDrive HD®	2	0 to 325			Green	430			•	•	•									•	•	•					
SynDurance® Premium Synthetic 460	00	-20 to 325			Green	500				•										•	•	•			•		
	2	-20 to 325		GC-LB	Green	500			•	•	•	•	•							•	•	•			•		
SynDurance ST 220	2	-20 to 325			Red	500				•	•	•								•	•	•			•		
SynDurance ST 460	2	-20 to 325			Red	500				•	•	•								•	•	•			•		
Premium Lithium EP	00-000	-20 to 325	▲		Dark Amber															•	•	•			•		
	0	-5 to 300			Dark Amber																•	•	•			•	
	1	0 to 300		LB	Dark Amber	350			•**												•	•	•			•	
	2	0 to 300	▲	LB	Dark Amber	375			•**	•											•	•	•			•	
Railroad Curve	Winter	0	-10 to 225			Gray																			•		
	Summer	1	-5 to 225			Gray	300																		•		
SUPERGARD® Marine Plus	2	0 to 250			Blue	300																			•		
UltraLife® CSEP 5M	2	0 to 325			Gray	500	5																		•		

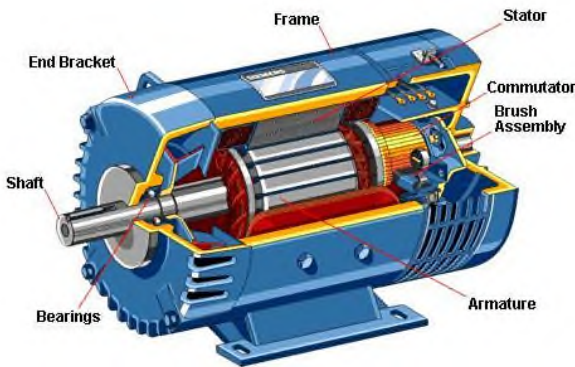
* Boat Trailer Wheel Bearings

**Not recommended for Automotive Disk Brake Wheel Bearings

Selecting the consistency grade: The operating conditions of bearing applications can vary widely, and correct lubrication calls for matching the grease to the application. The most common grease used in normal bearing applications has a medium consistency and is listed as NLGI Grade 2. Under certain operating conditions, such as centralized lubrication systems or continuous low ambient temperatures below 50°F (10°C), a lighter consistency grade such as a NLGI Grade 1 may be preferred. For further application questions, please contact the Product Answer Line at 800-248-4884.



Lithoplex EM



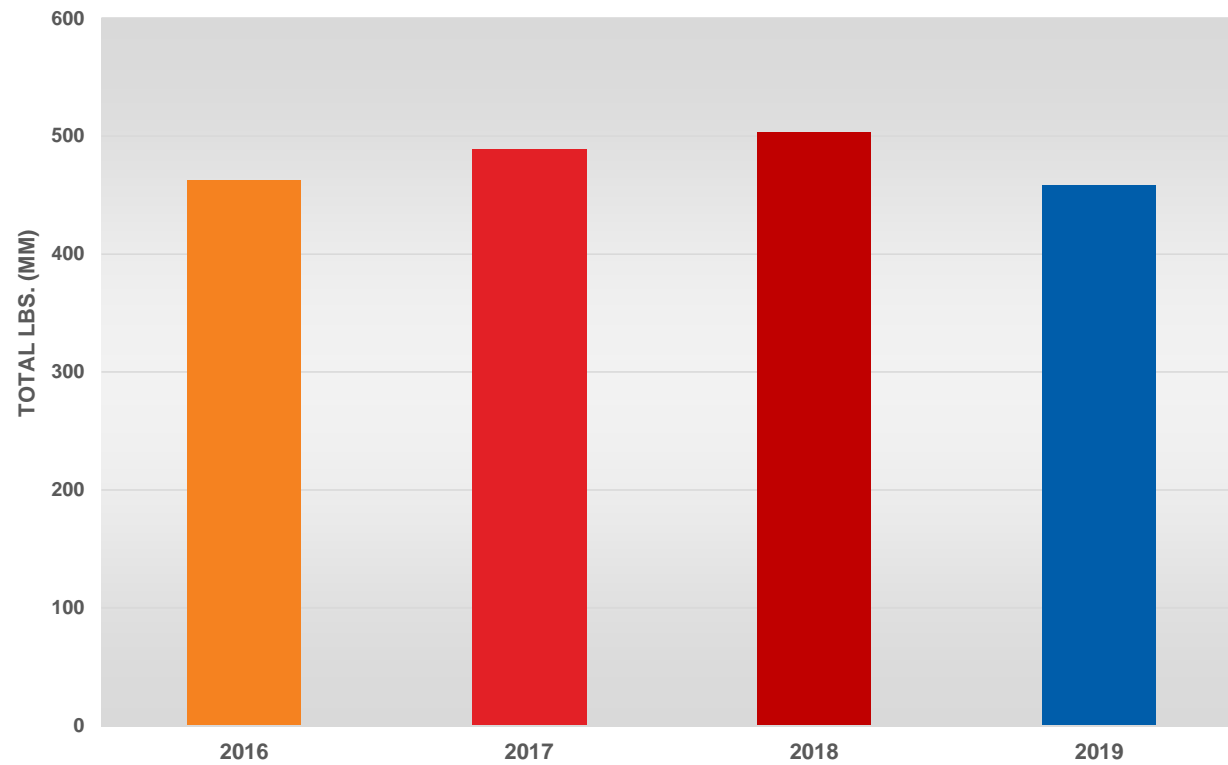
Property	CITGO EM Grease	Mobil Polyrex EM	Chevron SRI Grease 2	Mobilith SHC 100	Mobil Polyrex EM 103	Shell Gadus S5 V100 2
NLGI Grade	2	2	2	2	3	2
Thickener	Lithium Complex	Polyurea	Polyurea	Lithium Complex	Polyurea	Lithium Complex
Base Oil	Synthetic	Mineral	Mineral	Synthetic	Mineral	Synthetic
Color	Blue	Blue	Dark Green	Red	Blue	Light Brown
Penetration (Unworked), 0.1 mm, ASTM D217	300		255			
Penetration (Worked/60), 0.1 mm, ASTM D217	295	285	280	280	250	265 to 295
Penetration Change From 60 to 1,000, 0.1 mm, ASTM D217	10					
Penetration Change From 60 to 100,000, 0.1 mm, ASTM D217	19	40			40	
Shell Roll, 50 hrs., 80C						+50
Dropping Point, C, ASTM D2265	> 280	260	243		270	260
Base Oil Viscosity @ 100 C, cSt	13.9	12.2	12.3	16.3	12.2	14
Base Oil Viscosity @ 40 C, cSt	100	115	116	100	115	100
Viscosity Index	140	95	97	175	95	
Copper Strip Corrosion, 24 h, 100 C, ASTM D4048	1A	1A			1A	
Corrosion Preventive Properties, ASTM D1743	Pass	Pass			Pass	
SKF Emcor Rust Test, ASTM D6138	0	0,1 (No Rust)		0		Pass
SKF Emcor WWO Distilled Water						Pass
4-Ball Wear, mm, ASTM D2266	0.4	0.41		0.5	0.6	
4-Ball Weld, kgf, ASTM D2596				250		
Lubrication Life @ 177 C, h, ASTM D3336	ND	750+	750+		750+	
SKF R2F A						Pass
SKF R2F B @ 150C						Pass
Oil Separation, mass%, ASTM D1742	1.76	0.5			0.1	
Water Washout, Loss @ 79 C, wt%, ASTM D1264	1.9	1.9		6	0.8	
Low Temperature Torque, Running, -29 C, g-cm, ASTM D1478	384	800			1000	
Low Temperature Torque, Starting, -29 C, g-cm, ASTM D1478	1030	7500			9300	
US Steel Mobility @ -18 C, g/min				20		
Lincoln Ventmeter @ 75 F, psig @ 30s	350		225			
Lincoln Ventmeter @ 30 F, psig @ 30s	490		425			
Lincoln Ventmeter @ 0 F, psig @ 30s	790		750			
Operating Temperature, Min, C (F)			-30 (-22)			
Operating Temperature, Max, C (F)			177 (350)			
Flash Point, C (vacuum extracted oil)	271 (Calc)		260			
Pour Point, C (vacuum extracted oil)	-35 (Calc)		-15			
NBR Elastomer (hardness change/volume change)	(-2 / +4.34)					
Compatibility of 90% Lithoplex EM with 10% Competitor Grease		Compatible	Compatible	Compatible	Not Determined	Compatible
Compatibility of 10% Lithoplex EM with 90% Competitor Grease		Compatible	Compatible	Compatible	Not Determined	Compatible
Compatibility of 50% Lithoplex EM with 50% Competitor Grease		DP is 460F	Compatible	Compatible	Not Determined	Compatible



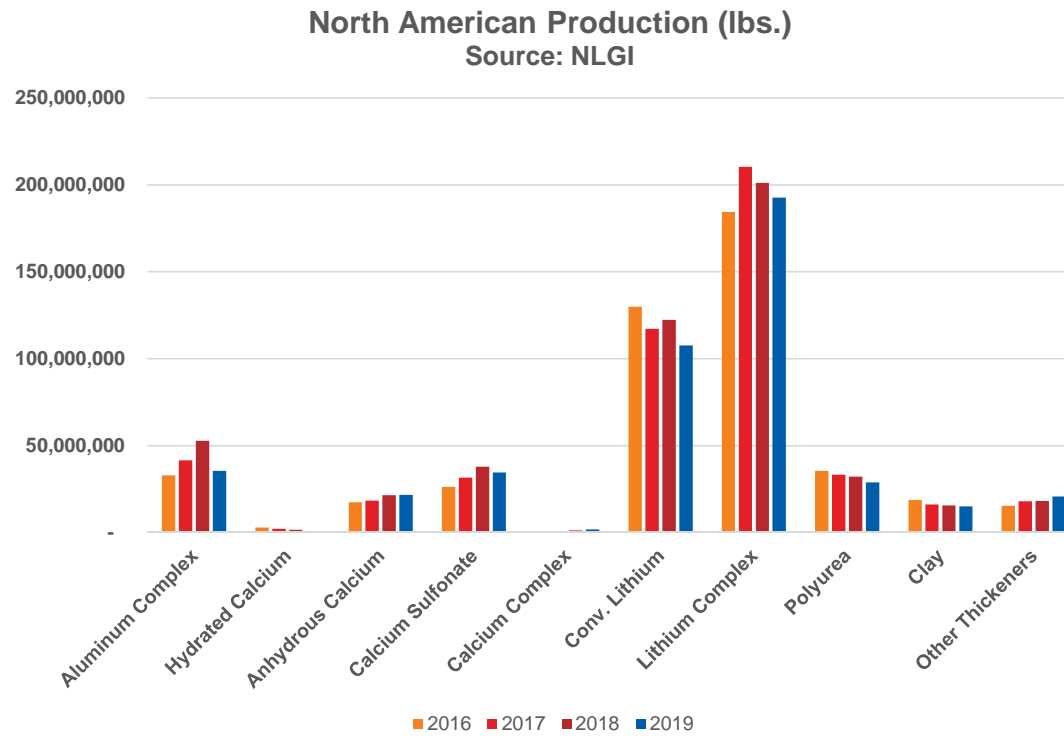
Greases

Doug Rice

North American Grease Production

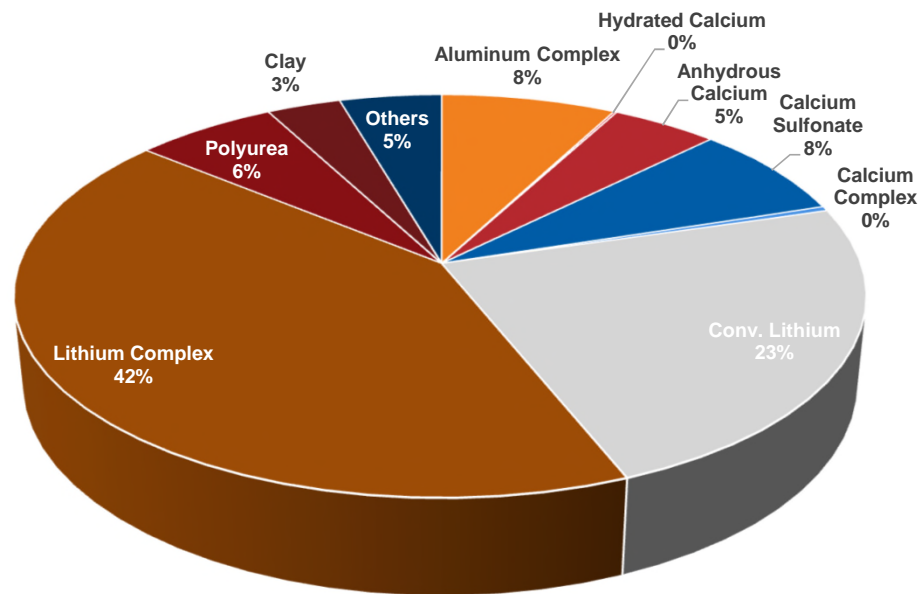


North American Production by Thickener



North American Grease Production

2019 North American Production
Source: NLGI





Grease Trends

- Stable Volume
 - Complexes, Calcium Sulfonates and Polyureas increasing at the expense of other thickeners
 - Lithium Complex and Lithium greases expected to continue to be market leaders
 - Expect cost increases for Lithium/Lithium Complex greases due to increased demand for Lithium batteries
-

Grease Basics

- Grease is an oily semi-fluid to solid material
 - Oil (60-98%)
 - Thickener (2-40%)
 - Additives (0-10%)
- Thickener is typically created by chemical reaction
- Special manufacturing equipment
- Batch or continuous processes





Aluminum Complex

Applications	Advantages	Disadvantages
High Temperature Industrial – Steel Mills and Paper Mills	High Dropping Point	Poor Storage Stability
Incidental Food Contact	Can be NSF H-1	False Set
	Water Resistant	Oil Separation
	Reversible	Limited Compatibility



Anhydrous Calcium

Applications	Advantages	Disadvantages
Low to Moderate Temperature Industrial Applications	Water Resistant	Low Dropping Point
Low to Moderate Temperature Agricultural Applications	Can be NSF H-1	Not for High Temperature Applications
Incidental Food Contact	Good Pumpability	
	Shear Stable	



Calcium Sulfonate

Applications	Advantages	Disadvantages
High Temperature Industrial Applications	Corrosion Resistant	High Density may Limit Pumpability
High Temperature Mobile Applications	Water Resistant	Incompatibility with other Thickeners
Incidental Food Contact	Can be NSF H-1	Age Hardening
	Shear Stable	Higher Cost



Lithium

Applications	Advantages	Disadvantages
Moderate Temperature Industrial Applications	Good Flow Properties	Not for High Temperature Applications
Moderate Temperature Mobile Applications	Water Resistant	
	Low Oil Separation	
	Shear Stable	
	Widely Compatible	



Lithium Complex

Applications	Advantages	Disadvantages
High Temperature Industrial Applications	High Dropping Point	Higher Cost
High Temperature Mobile Applications	Good Flow Properties	
	Water Resistant	
	Low Oil Separation	
	Shear Stable	
	Widely Compatible	



Polyurea

Applications	Advantages	Disadvantages
Electric Motor Bearings	High Dropping Point	Higher Cost
“Fill for Life” Applications	Good Flow Properties	Limited Compatibility
High Temperature Industrial Applications	Oxidation Resistant	
High Temperature Mobile Applications		



Additives

- Molybdenum Disulfide (MoS_2)
 - Graphite
 - PTFE
-



Questions

- Please post your questions using the Q&A function.
-



How to Contact Us

- Lubes Answer Line
 - **800-248-4684**
 - 8:00 AM - 12:00 PM, 1:00 PM – 5:00 PM CT (Mon – Thurs)
 - 8:00 AM - 12:00 PM, 1:00 PM – 4:30 PM CT (Fri)
 - lubeshelp@citgo.com
 - Available 24/7
-



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Future Webinar Date

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